

**Water Resources People and Issues**

---

Weber, to fill the position that Charlie Curran had held before he went to work for the second Hoover Commission. A fellow named Wally Vawter, whom I never met, filled in for Curran while he was at the Hoover Commission. Interestingly enough, they had both been in the Bureau of the Budget before moving to the Library of Congress. When Curran didn't want to come back to the position they had held for him and Vawter had already left, they had to fill it.

Howard Cook called me up one day to tell me about it. He said they had invited him to come up and talk to them about the position, and he said something like, "I don't think I want the job because I think I can do more good at the Corps." Howard really felt that he was helping to reform the Corps' policies. Howard was a wonderful person with great integrity. I think I've mentioned that I'd worked with him when he was in the Office of Land Utilization in the Agriculture Department. The Corps was lucky to be able to hire him when he was booted out of Agriculture when Ezra Taft Benson became secretary.

Anyway, Howard asked me if I would be interested in interviewing for the position. I told him that I hadn't really thought about it, but if it were a promotion I might consider it. Then a few days later Gene Weber called me and told me that he had been up there talking to them, but that it was not the kind of job he wanted. You remember, Gene was involved in the International Joint Commission, but I don't know whether he was a commissioner yet. However, he had a very public image and at one point had received a very important public service award. I think he felt it would be a step backward in his career. I think he said that he was not the kind of person who could sit at a desk and do research. Then he asked me if I would be interested. And I gave him the same answer I had given Howard. So Howard and Gene apparently gave my name to Ernest Griffith, director of the Legislative Reference Service, who invited me to come up for an interview. And when they offered me the job, with a promotion, I left the Bureau of the Budget to join the staff of what is now the Congressional Research Service. So I was up there when the omnibus bill finally was enacted with a lot of those projects out.

One of the ironic things that happened over the next few years in my role at the Library of Congress was that Senator McClellan and Senator Ellender and various other members of the Congress whose projects had been curtailed in that 1958 act asked for my help in getting what they wanted reinstated. The

Theodore M. Schad

---

most egregious of these requests was for help in taking the cost sharing out of the land enhancement in the Boeuf and Tensas bayous project. I felt that it was kind of ironic that here I had been one of the people fighting to keep certain things out of the federal program, and now I had to help put them back in because it was my job to help members of Congress.

But I have always looked on my role as primarily a staff role in which you do what it's your responsibility to do. I guess that's why my philosophies never became imbued into the policies until much later.

Q: Let me just ask you, before we get off the Bureau of the Budget, one last question. You've been talking about your relations, and the Bureau's relations, with various Corps personalities, but there are some people whose names have not popped up and, in a sense, they're notable by their absence. I'm talking, in particular, about people in the Department of the Army, as distinct from the Corps of Engineers.

I think, by this time, Dick Hertzler was already over in the office that became the Office of Civil Functions. That particular responsibility shifted among various offices in the '50s and early '60s in the Department of the Army, so it depends on what year you're talking about. But the question is, did, in fact, to your knowledge, the Department of the Army try to exert some control over the Corps' civil works functions, or was the relationship really between the Corps and BOB as sort of short-circuiting the Department of the Army?

A: Dick Hertzler was another refugee from Ezra Taft Benson when he reorganized the Department of Agriculture, and was our primary contact with the office of Civil Works. We had a lot of contact with Dick Hertzler, but, frankly, Dick did not have the power or the knowledge that Joe Tofani had. Dick was a wonderful person, and I liked him a lot. We had been friends for years before he went to the Department of the Army, and we always tried to work through him, but he had Dewey Short as assistant secretary. So the top-level relationships were between Bob Merriam, assistant director of the Bureau of the Budget and Dewey Short. But when it came down to getting something done, we relied much more on Joe Tofani. Dick had the role, I think, of trying to rationalize decisions that were being made by powers that were more powerful than his particular office. That was the way I looked at it. Dick was in a difficult position because he basically agreed with us, and we had pretty good rapport with him and Howard Cook, but when it came down to the decisions,

I sometimes felt that they were just voices crying in the wilderness, trying to bring more cost sharing into the course of programs, and trying to bring more conservative cost-benefit analysis and better economic analysis into the program.

And Gene Weber was another one we dealt with on policy and he seemed to have somewhat more, if you want to use the word, “clout” in the Corps. He eventually became an assistant chief of Civil Works, I believe-one of the few times that a civilian has reached that stage.

So I didn’t have lots of contact with Dick Hertzler, but it struck me that there wasn’t any real power there, and I don’t think he exercised much control over the Corps. When we really wanted to get something done, we just had to go through Joe Tofani.

Q: Okay, well, I think it’s time to turn our attention to the Kerr Committee, unless you had something else you wanted to cover.

A: No, I had first met Senator Kerr when the Bureau of the Budget had testified before his subcommittee on A-47. I think there were several attempts in the Senate during the mid-50s to liberalize federal water policies. I am thinking of Senate Resolution 248, and Senate Resolution 281, but I can’t remember which Congresses. They were introduced or adopted in an effort to counteract A-47, because A-47 was still on the books even though everybody had disavowed responsibility for it. Because it was still on the books, the Bureau of the Budget could use it in reviewing reports. So the Senate-this was the Public Works Committee-was trying to impose its views, which were toward the liberalization of policies with respect to recreation and the environment. At that time they wanted nonreimbursable allocations of costs for such environmental programs as providing water for dilution downstream from reservoirs. Dilution of—

Q: -pollution?

A: Yes, pollution. It was looked on as a way to get more projects. You provide space in reservoirs for water quality storage, which could be drawn down to dilute pollution. It was proposed as another nonreimbursable allocation that could help to justify a project.

---

Theodore M. Schad

I think Senate Resolutions 248 and 281 were in separate Congresses. I think 281 came first, and then 248, and they both were attempts to liberalize policy. The Bureau of the Budget testified against them, although these were not laws. These were merely Senate resolutions which the President didn't have a view on, but we were consulted, and Senator Kerr seemed to delight in attacking the Bureau of the Budget; Bob Merriam stood up beautifully against Senator Kerr, and there was a lot of interesting repartee. Senator Kerr was always a great one to ask his staff for a dictionary and quibble about some word.

He was a very well-educated man, as well as a brilliant man, and I can remember one exchange where Kerr said, "Well, this word means so-and-so to me," and Bob Merriam said, "Well, Senator, I have to accept the dictionary's definition, as long as it's a Merriam-Webster dictionary." Bob Merriam, as well as his father, was very much involved in public administration. I enjoyed working with him. Incidentally, Bob died just a few months ago. I had been briefing Bob on water policy, so he was well versed on the issues and he had several sharp clashes with Bob Kerr and Senator Ellender. It soon became evident that Kerr and Ellender were not really very conversant with the issues we were talking about. It was all very theoretical to them, and they had been prodded by staff people to hold the hearing, and when the staff people weren't there, they weren't able to make much of a case at that particular time.

### **Senate Select Committee on Natural Resources**

Anyway, about a year after I went up to the Library of Congress, I was very surprised to get a call from Don McBride, who was Senator Kerr's principal staff man in the water resources area, asking if I would come over and talk to Senator Kerr about serving as staff director of the Senate Select Committee on Water Resources.

Q: Okay. Now, just to get the chronology straight, in April 1959 you had Senate Resolution 48, which, of course, calls for these studies of water resources and some 20 months or so afterwards, I guess it's 1961, is when the report is finally submitted. Okay.

A: Well, let me go into the background of that. I should have mentioned that first. Senate Resolution 48 was introduced by Senator Mike Mansfield. It stemmed

**Water Resources People and Issues**

---

from the fact that the President had vetoed the Army Corps of Engineers' authorization-the bill that eventually became the Rivers and Harbors and Flood Control Act of 1954. The President had vetoed it twice. The revised version that eventually became law was passed at the end of the session. In addition, the President had vetoed the Bureau of Reclamation's small projects bill and the expansion of the water pollution control program. This was a big issue we haven't mentioned, but it was a big issue through the '50s. And the President, I think, had vetoed the Civil Functions Appropriations Act.

This was near the end of the Eisenhower administration, and I think some people on the Hill decided they had to make a record in the water resources field to help in the 1960 election. And the studies authorized by Senate Resolution 48, which didn't have to go up to the President for signature, were going to be used to provide the ammunition they needed to beat the administration over the head in the 1960 elections.

I didn't really know much about it when I got the call from Don McBride. Don McBride was the former executive director, or maybe they called him the executive vice president, of the National Reclamation Association. Then, later, he had been state engineer of Oklahoma and had come to Washington when Bob Kerr was elected to the Senate. I got his call while I was at a civil engineering meeting out in Cleveland, which is why I remember it. When I got back from Cleveland, I went over and met with Senator Ellender and Senator Kerr. I remember Senator Kerr saying, "Mr. Schad, we've been talking about you as if you were a sack of meal or a sack of flour-or wheat or something-as if you were an inanimate object, and we wanted to meet you and see if you meet our specifications to run this committee."

Allen Ellender didn't say very much. He was rather laconic, and in some ways he was more political than Bob Kerr. Anyway, nothing at all was said about my political affiliation, Kerr obviously remembered that I had been before him representing the Bureau of the Budget, and so he knew where I had come from. But I think he relied also on Don McBride's knowledge of me. We had a little talk at the end of which I agreed to take the position of staff director for the Senate Select Committee on leave from the Library of Congress.

When Senate Resolution 48 was passed, it was co-sponsored by Senator [James] Murray of Montana, and I think it had been assumed that Senator Murray would be the chairman of it. Senator Murray was chairman of the

---

Theodore M. Schad

Senate Interior and Insular Affairs Committee, Dennis Chavez was chairman of the Public Works Committee, Allen Ellender was chairman of the Agriculture Committee, and Warren Magnuson was chairman of the Commerce Committee; and they were all going to be members of the Select Committee because it cut across all of their responsibilities. But Senator Murray had medical problems-I don't remember just what it was-and Clint Anderson took over the responsibilities of the Interior Committee.

When it was found out that Senator Murray would not be able to serve as chairman, and then since Senator Kerr was chairman of both the Rivers and Harbors and Flood Control Subcommittee of Public Works and the Subcommittee for Civil Functions of the Appropriations Committee, he seemed to be a natural person to serve as chairman. I don't think he had had anything to do with the passage of Senate Resolution 48, and he probably didn't even know about it until it was passed because it came out of the Interior Committee. It was also felt that if one of the four full committee chairmen took it, there might be a violation of the rule about how many committees you can chair in the Senate, but I am not sure that rule applies to select committees.

So that's how Senator Kerr got to be chairman, and to show that it was going to be a bipartisan committee, Senator Tom Kuchel of California was made the vice chairman. There were a number of powerful senators on the committee in addition to the four chairmen: Henry "Scoop" Jackson, Magnuson, and, of course, Senator Murray, who was ex officio, but he never came to the meetings. On the Republican side, Milt Young and Francis Case. Case was very much involved in water resources, having been one of the sponsors of the Case-Wheeler Act back in the '30s.

Then there were some of the newcomers. Well, Clair Engle was a newcomer in the Senate, but he had served a long time in the House, and Phil Hart and Gail McGee and Ted Moss. So we had some really powerful committee chairmen, and then we had some new, younger senators who were a joy to work with because they were so open with me and relied on me to educate them about water resources.

Q: There seems to be a strong Western representation on the committee.

A: Yes, very strong Western representation, but we had Phil Hart from Michigan and Hugh Scott of Pennsylvania. I should also mention Thomas Martin of

**Water Resources People and Issues**

---

Iowa. But otherwise, it was all Western, but that's where the primary interest in water is in this country.

Q: How about the Southeast, we've built a lot of projects there?

A: No. Nobody from the Southeast. And we had two from California, two from New Mexico, and two from Washington state, so it was not well balanced geographically. Anyway, I accepted the position but remained on the Library's payroll and I didn't have any commitment to support any particular policies or anything like that. My role at the Library was to serve members and committees of the Congress, particularly the Public Works and the Interior Committees of both Houses and their members, so it was quite natural for me to take on the responsibility.

The director of the Legislative Reference Service, Ernest Griffith, didn't want me to go because he said he needed me, but didn't stand in my way because by taking the position I was, in effect, serving the committees which I was responsible for serving.

So I went over to work in what was then called the New Senate Office Building, the first occupant of Room 3206 still on the Library's payroll, but the Library was reimbursed by the committee. The Library was very particular about that, and I think even when I traveled for the committee, the Library had to buy my tickets and the committee had to reimburse. The Library was very particular about any staff member not receiving any outside compensation, even from another government agency.

I started to work for the Senate Select Committee about May 1959 and I found that Clint Anderson had already taken a leading role in the planning for the committee's work. He had been in touch with Ed Ackerman, the Ed Ackerman who had been at the Bureau of the Budget. I don't know whether this is a fact or not, but I believe that if Ed Ackerman had been willing to take the position of staff director, Clint Anderson might have accepted the chairmanship. But Ed Ackerman had been appointed as executive officer of the Carnegie Institution, which is a very prestigious position; he couldn't be expected to consider going to work on the Hill. I have a feeling that that's another reason that Senator Kerr was made the chairman of the committee.

Theodore M. Schad

---

They're all gone now. Nobody can ever prove or disprove that and I doubt if anybody else but me remembers or cares about it.

But Ed Ackerman had worked out a rough outline of how to attack the problem. Of course, it was very thoughtfully and professionally done. It was, I might say, very academic, remembering that Ed Ackerman had been a professor of geography at the University of Chicago. It was a good program; it was to be accomplished in two phases. The first phase was to lay the groundwork and develop all the physical and economic information, and the second phase was analytical.

This plan was given to me by Senator Anderson and it looked good to me. Ed Ackerman was a friend of mine and he met with me several times to discuss his ideas. At first I pretty much worked as an individual on this because I was used to working as an individual. Later, I got a gentleman with whom I'd worked in the Interior Department named W. G. Hoyt to assist me. Hoyt was an old-timer with the U.S. Geological Survey who had been the executive secretary of the Water Resources Committee of the Interior Department, and I had very close relationships with him on all the work I did through the FIARBC.

He was retired and had been living up in Connecticut but had just moved back to Washington, so I took him on as a consultant. I think we paid him about \$25 a day, because he was a federal annuitant, and the rule was that you deducted the amount of their federal annuity from their normal pay.

I also took my assistant from the Library, Barbara Jibrin, over with me, and Senator Kerr assigned Paul McBride-not Don McBride, but Paul McBride from his staff-to be the administrative man for me. I think that Paul McBride was supposed to keep an eye on me, but he was not the kind of a person that was very intellectual in the water area; he was really the only committee clerk, so we called him the "Chief Clerk."

We also had a secretary, Maggie Duckett, who had formerly worked for Robert Kennedy on the staff of the Labor-Management Relations Committee. She was a very good secretary. We also had another secretary, and that was the extent of the staff. We didn't have a lot of money. I think the resolution provided only \$175,000 for the first year, and we were supposed to get help from the federal agencies. I was able to enlist the aid of Abel Wolman, Gilbert White,

and Ed Ackerman as consultants, and I think we were able to pay them \$100 a day.

That gave me a lot of intellectual power. I don't think we could have done what we did if it hadn't been for those three gentlemen helping me. We met several times, and they met with the committee as a group once or twice and with the chairman and me individually several times.

I started with the Ackerman program and developed it into something that I felt would be easier for the senators to understand-a little bit more practical covering federal programs in the first phase and problem areas in the second phase. Most of the studies were done by federal agencies in response to requests made by the committee, or I should say, by the chairman. At one point, Senator Case had an assistant that he wanted to get involved with us, and so we did have a gentleman named [A. M.] Eberle, from South Dakota help us with a report on weather modification. Later-I don't know whether the Corps put him up to it or not-I was asked to appoint Herb Gee, a former Corps of Engineers officer who had left the Corps with a lot of publicity because he couldn't get promoted, or something like that. He had a consulting firm down in Palm Beach, or West Palm Beach. He was named as a consultant, I think, on the recommendation of Allen Ellender.

Q: Is that G-e-e?

A: Yes. But Gee and Eberle were kind of on a different level than the first three consultants that I mentioned. They came to some meetings but didn't get involved with the overall program, which had already been adopted by the committee. We went through that whole list of studies one by one. I won't enumerate them now because they were all published as committee prints. We made a special effort to get the Government Printing Office to change their standard format for committee prints which was 6 x 9. We had to pull a few strings to get the Joint Committee on Printing to agree that we could get those printed up in a larger format, 8½ x 11. You just can't believe how much red tape had to be cut just to make that one little decision. It was almost as if we were undermining the foundations of the Capitol to make that change. I think Senator Kerr had to take it up with Carl Hayden. There have been other slick-paper committee prints that have been on that format.

Q: Why were you so interested in getting the size changed?

---

Theodore M. Schad

A: Because we wanted them to stand out as different and more important so people would pay more attention to them. Both Gilbert White and Ed Ackerman felt one of the problems is that the Congress really doesn't really understand the importance of proper management of water resources. The whole thrust of Ackerman's original program was to lay out an academic background on the theory of water resources, as a way to educate decision makers.

So, at one of the first meetings of the committee, we had the Geological Survey make a presentation with attractive charts showing all the different aspects of water resources-of groundwater, water quality and quantity, and so forth. These charts would not have looked good in a 6 x 9 format, but they looked good in the larger format, and that became Committee Print Number 1, and that is why the decision was made.

Maybe it wasn't all that important, but Senator Kerr wanted it done, and so we did it that way. And I'm glad we did because it set our work apart a little bit. But you're right, maybe it wasn't all that important. But why did they make such a big deal out of it? I guess I have a stubborn streak in my nature, and when they said, "You can't do it," I said, "Well, I think we will do it." We eventually went to Carl Hayden. He was president pro tern of the Senate, but he was probably also chairman of—

Q: -the Joint Committee on Printing?

A: I don't know whether it was the Joint Committee on Printing, or the Committee on Administration of the Senate.

Anyway, the reports were printed in the larger format and lots of people liked them. Most of the reports were prepared by the federal agencies. These were the reports on the first phase, developing the background for the analyses in the second phase.

Q: So in other words, the Corps of Engineers actually prepared the report on flood control, or—

A: That's right. It was Howard Cook, and he did a wonderful job, and I think he prepared one on navigation also. At least he was my contact person. Similarly in the Interior Department program, there were reports on Reclamation, and

**Water Resources People and Issues**

---

Fish and Wildlife, and the Park Service. I can't remember who prepared the one on Alaska.

**Water Supply and Demand Study**

The principal new idea that I put into the program was the idea of developing the water supply/demand relationship. It was not an original idea with me. A gentleman named Doug Woodward, who was on the staff of the Geological Survey, had written a paper for the Army War College on the supply/demand relationships for water. He did it really for the whole country, and, of course, it does show there's plenty of water in the United States.

I had read that paper, and the idea kind of intrigued me, and so I got the idea that this would be a good focus for the committee's efforts to develop water supply/demand relationships for the individual river basins to show where the shortages were showing up.

We divided the country up into 22 water resource regions. Working with people from the Department of Agriculture, we divided the whole country into river basins, but we had to do it by county lines because all the economic data which drive the demand side was prepared by counties. The Geological Survey set up a whole section for me, headed up by a wonderful hydrologist named Roy Oltman, with a staff of five or six people to work on hydrology for the Senate Select Committee. We could have never done what we did if it hadn't been for that group, as well as other groups.

We had a committee of representatives from the federal agencies to help with the coordination of the studies. Howard Cook was the representative from the Corps of Engineers. Carl Brown from the Soil Conservation Service represented Agriculture. When I saw that I would need more help to put all this together, Ed Ackerman, who had been chief of the water resources program at the Resources for the Future before he went to the Carnegie Institution, put me in touch with Resources for the Future. They had just given a grant to an economist from the University of New Mexico on sabbatical named Nathaniel Wollman to work on water supply/demand relationships. Nat Wollman was a most unusual person in that he was- I don't know whether to say indefatigable or what-but you could not discourage him. He was in Washington for only a year, or maybe two years, to work on this project, but he was convinced that

Theodore M. Schad

---

it could be done. He sat in on the meetings with federal agency representatives to help with the coordination. People like Nat Wollman and Howard Cook were really the indispensable glue which helped me pull all of this together.

Out of it we developed a water supply/demand study which was going to be done by Resources for the Future with the aid of the federal agency committee to provide the data from their agencies. Of course, this was wonderful for Resources for the Future, because otherwise, they'd have had an awful time to get all this data together, and really, we got hundreds of thousands of dollars' worth of effort out of the federal agencies.

So we developed that study as the means to pull together all of the background studies contemplated in part one of the original Ackerman outlines. The water supply/demand relationship study hadn't been in the original Ackerman plan of study.

Q: Did you get into any questions of urban water supply?

A: Yes, we had a study on municipal water and we had a study on pollution abatement, so we got into urban water problems, which were handled at that time by the Public Health Service under the new Department of Health, Education and Welfare.

Anyway, the water supply/demand study was the first of the really analytical studies, but the rest of them I left for phase two, because we had enough of a problem to get these 20 or 25 background studies pulled together.

I'll never forget the way Nat Wollman helped pull together those meetings with the federal agency people. And the Geological Survey staff was wonderful also. They said, "Yes, we can do it." Of course, they were hydrologists, just looking at the strictly hydrological part of it.

But some of the other agencies, particularly the Public Health Service which handled water pollution control, was very negative. Their representative was a good friend of mine, Melvin Scheidt, and he was very much concerned about some of the short cuts that we were taking in putting together this water supply/demand study.

**Water Resources People and Issues**

---

But we went ahead, and we published the agency studies as we went along. During the same time, the committee held 23 public hearings in 21 different states. The way we decided where to have hearings was whenever a senator asked us to have a hearing, we would agree to have a hearing. For that reason, the hearings were almost all held in states where we had members, and we kind of left the Southeast out of it. We didn't leave New England out of it, however, because Senator Edmund Muskie asked us to have a hearing in Maine and Senator John Kennedy asked us to have a hearing in Massachusetts. And Hugh Scott, of course, was a member of the committee, so we had one in Philadelphia. So we had three hearings in the Northeast, but we didn't have any in the Southeast, although we did get to New Orleans.

We had this series of hearings during the fall and winter of 1959-60 and that pretty well occupied my time while the agencies were working on the background studies. We used a military air transport plane which was assigned to us, and we flew all over the country. During those trips I found Senator Kerr to be a very interesting and stimulating person to work with.

One of the things that happened is that my father had died just before I started working for the committee, and this kind of leaves a gap in one's life. So Senator Kerr became a very fatherly figure to me. He had one faculty that my father had. My father could look at a column of numbers and add them up in his head. I'm talking about a column of numbers with four digits or something like that. He could just somehow add them up in his head. He never could understand why people had trouble adding each column of numbers and carrying the tens over to the next column and all that business that they teach you in grade school, because he seemed to be able to add columns of numbers by inspection. And Senator Kerr could do the same thing.

Senator Kerr used to take the staff to lunch sometimes and we'd have maybe 10 or 15 people with many different entrees. When the waiter would bring in the check Senator Kerr might take one look at it, and he didn't look and see who had what or anything like that, but he'd look at the total, and he'd hand it back to the waiter and say, "There's a mistake here." And the waiter would take the check and add it up again, and he would come back and say, "I'm sorry, Senator, the cashier made a mistake." And there had been a mistake of a dollar or so in adding up a check which came up to \$50 or \$60. And Kerr would pay it, and maybe give the waiter a \$20 bill for a tip. He always paid cash; I never saw him use a credit card.

---

Theodore M. Schad

So Kerr had that kind of a brain. I guess we could all train ourselves to do it, but we don't, and it's probably not important now. But this was one of the characteristics that reinforced my feeling of respect for Senator Kerr, especially because my father had the same ability.

So I really had a lot of loyalty to him, and the relationship was reciprocal. But all of his staff felt the same way about him and felt close to him in a personal way. He had a press assistant named Malvina Stephenson who traveled on all these trips with us and who eventually, I think, wrote the first draft of his book, *Land, Wood and Water*. She was an ex-newspaper person from Oklahoma, and there was a bitter feud between her and Don McBride as to who was really closest to Senator Kerr. Everybody always wanted to feel they were his number one assistant. Everybody on the staff.

I didn't feel quite that way. I knew I wasn't, and I was still on the Library payroll. I got a big kick out of traveling with him to the hearings. We traveled on a twin-engine Convair plane provided with a pilot and staff by the Military Air Transport Service. It had tables in the back where two people could ride backwards, and Senator Kerr always took one of the rear-facing seats. On one of the trips he asked if anyone played bridge. From then on we started to play bridge on the airplane trips. You'd think we would have been working, preparing for the next hearings, but no, he wanted to play bridge. It was always Senator Kerr and Malvina playing Senator Hart's assistant, Muriel Ferris, and me. I had played a lot of bridge when I was growing up, but hadn't played much after I got out of college. And I don't think I was a very good player. I don't think I even knew Stayman. But inevitably it was just like sometimes you get a streak of luck. Maybe Muriel Ferris was good enough to make up for my shortcomings, but anyway, we almost always beat Senator Kerr and Malvina, largely because Malvina wasn't a very good player. This really irritated Senator Kerr, and we wouldn't be off the ground in the airplane on the next trip when he would get out the cards, because he was just determined to beat us. I think he even got Malvina to take lessons.

This rivalry even extended to when we had a staff picnic for everybody at Muriel Ferris's house in McLean. All of the staff and their families were invited, and we had a picnic one Sunday in the summer. When we got there the first thing Senator Kerr wanted to do was play bridge. So we started in at 11, 00 o'clock, or whenever we got there in the morning, and we played all day, and he lost all day. My wife was furious and said I should have circulated with

**Water Resources People and Issues**

---

people and been more sociable. But Kerr was determined to avenge himself, and he never was able to. I guess I never knew how to win friends and influence people by letting them win.

Kerr was really a good bridge player. We were just playing for fun, and the cards were running against him. It was just a friendly rivalry, and it was relaxing. I still like to play bridge because it gets your mind intent on something other than things that you may not like to think about.

So I got along very well with Senator Kerr, and he had a great respect for me and what I was doing. When he got the draft of his book, *Land, Wood and Water*, he had a lot of technical questions, but he didn't ask me to help review it. He said, "Ted, you just can't take time. You've got too much to do." So I found someone else well versed in water resources that he contracted with to review that book for accuracy. It was a paid contract. Kerr was not at all stingy; when he asked somebody to help him, he was willing to pay them.

Q: Well, who actually, then, wrote the final book?

A: It was autobiographical, but he gave credit to Malvina Stephenson and Tris Coffin, as editors.

Now getting back to the Select Committee studies. Let me tell you one other thing about how Kerr operated. We wanted the Census Bureau to break down their population projections by river basins and by states because we needed them to work on the water demand side of water. The head of the Census Bureau was Conrad Taeuber, and we met first with staff and then with him to tell them what we wanted. They finally said they couldn't do it, that it would be very time consuming, and that they never did it that way, and if we wanted it done, we'd have to sign a contract that would probably cost about \$50,000 or \$60,000.

When I reported that back to Senator Kerr, I told him that I didn't think we could spend that much money, and if we started to pay one agency, we'd have to pay the others. And he said, "Who did you say was the head of that agency?" and I said, "Conrad Taeuber." And he said, "That's under the Department of Commerce, isn't it?" And I told him that it was.

---

Theodore M. Schad

A week or so later, I got a call from Conrad Taeuber, and he said something like, "We have now reevaluated your request and decided that it would be a very interesting study for us, and we will be able to do it just the way you wanted it done." About a week or two later, the nomination of Louis Strauss to be Secretary of Commerce was voted on in the Senate. Louis Strauss, as chairman of the Atomic Energy Commission, was one of the architects of the Dixon-Yates fiasco and was anti-public power; he certainly had nothing in common with Senator Kerr who had been a public power man from way back. And Kerr voted for his confirmation.

I don't know for sure whether there was any connection or not, but the vote seemed unusual. Nobody expected Kerr to vote for confirmation. Of course, Strauss was not confirmed, so it didn't make much difference.

Q: Well, it's an interesting anecdote.

A: There were a lot of little incidents like that which I look back on with a lot of interest because it was my first close association with political figures. Of course, having been in Washington for 13 years I knew how they operated.

Getting back to the putting all of the federal agency contributions together in the water supply/demand study, we hit a roadblock in the Public Health Service. My friend Mel Scheidt said, "We just can't do it. You're making some gross assumptions here that we can't substantiate." After a lot of arguments they agreed to help us by paying George Reid, a professor at the University of Oklahoma, to make the study that we needed. This was trying to get from pollution loading to dissolved oxygen in each of the water resources regions. There's a formula called the Streeter-Phelps formula which is used to do that for a particular project. If you put the effluent from a sewage plant into a river, immediately the BOD [biochemical oxygen demand] in the sewage uses up oxygen in the river. The Streeter-Phelps formula is the one that tells you how the river recovers as the pollution is assimilated in the flowing water.

George Reid was paid by the Public Health Service to help us with this, with the understanding that the work would not be attributed to them. George Reid was another of those people who were fearless in the face of bureaucracy, as was Nathaniel Wollman.

What I started to say about Nathaniel Wollman is that when the bureaucracy knocked him down and told him he couldn't do what he wanted to do, the next day he would come up with a way to get around their objections. This would go on, week after week, and he used a trial and error method because we were having to take a lot of short cuts to do what we wanted to do. He reminded me of a toy that we had. At that particular time, I had two daughters who were babies. Or I should say one of them was a baby and the older one was three years old. And they had a toy which was a roly-poly kind of a little figure of a man, and no matter what you did, when you knocked him down, he came back up. That was the visualization I had of Nat Wollman, because no matter how many obstacles they put in his way, he would come back up.

Q: Well, he must have impressed you because you later used him on the National Water Commission too, after that.

A: No, you are thinking of Abel Wolman.

Q: Didn't Nat Wollman, though, write one of these studies for the National Water Commission too? I'll try to check. I had the idea he had.

A: I tried to get him, but he couldn't do it. By that time, he was dean at the University of New Mexico, and he didn't have time to work for the National Water Commission as I recall it. But he had refined his study on water supply and demand, which was published with a co-author named [Gilbert] Bonem. They found all kinds of mistakes that had been made in the short cuts that we had taken, including a gross mistake that was made on the water supply side, not so much in the water supply, but in the storage calculations.

Getting back to the Select Committee, all of the studies were in draft form, and most were finished and published by the summer of 1960. To wrap up what I considered to be the first phase, I wrote a draft of a staff report to the committee. I wrote that to kind of summarize these studies. But it covered the water supply/demand study even though it was still in the very preliminary draft stage. I sent a copy to Abel Wolman, and he sent it back with many suggested changes. He really panned it and raised a lot of questions.

So I fixed it up as best as I could and gave a copy to Senator Kerr and told him that it was the first draft of the summary of phase one of the study and that I'd like to get the committee to approve so we would go on to phase two. Phase

Theodore M. Schad

---

two was to include studies of things like interagency relationships, economic analysis, cost sharing, and agency responsibilities. This was really to be the analytical part of the committee's work, which Ed Ackerman and I had looked on as being the important part of the study. The background in phase one was just to provide the data so you can do the analysis.

Senator Kerr had a fast airplane, I think it was a converted B-26 or some other war surplus plane, that he used to travel back and forth from Washington to Oklahoma on weekends. I guess it was the Kerr-McGee Company's plane. Anyway, he took a copy of the draft of the staff report so he could read it on the way down there. When he came back on Monday, I asked him what he thought of the report. I almost fell out of the chair when he responded that he felt that with a little editing it really did the job that needed to be done to complete the committee's work.

I think I realized that if we had gone into phase two, we would have needed a lot more time and money, and that it would be very controversial.

Q: That report actually is fairly succinct and quite short, considering all the work and background studies that had gone into it.

A: Yes, that's true and at that time it didn't have any recommendations.

Q: It comes down to about 100 pages.

A: Let me say that the report that Senator Kerr liked so much was only about half that long. The front part or summary was just 10 or 12 pages, and the description of the studies was about 50 pages.

Q: How did you get into the recommendations?

A: At that time, I hadn't even thought about the recommendations. We didn't have any recommendations in it, except maybe some recommendations for further studies. The water supply/demand study was not yet completed, so I felt it was premature to formulate recommendations.

Q: Right.

**Water Resources People and Issues**

---

A: The draft report was really was what we called the substantiating material in the final report. And that was basically what it was. Of course, we did an awful lot of refinement of that first draft, with the help of Ed Ackerman, Abel Wolman, and Gilbert White. We worked on it for the rest of the fall because Senator Kerr wanted to get it finished by January. You remember, this was an election year, a presidential election year, the year that the Kennedy-Johnson ticket was elected. Kerr was supporting them all the way down, and it took a lot of courage on Kerr's part, because of Oklahoma's being a Southern Baptist state and it was felt that they just didn't quite trust Catholic Yankees from New England. But Kerr came out very strong for the ticket in Oklahoma and everywhere in the South.

Q: Can I interject something at this point?

A: Sure.

Q: The recommendations that are in this report include recommendations for more scientific research, for biennial assessments of water supply/demand relationships, even something about nonstructural management of water resources.

The question in my mind is-and I'm looking at it with the benefit of 20/20 hindsight and particularly some of the things that Clinton Anderson is later involved with-was there at that time a feeling among the senators who were involved that some of this activity would more appropriately be done at the state level rather than at the federal level? Was this a call for greater state/federal cooperation? Was that-1 don't want to use the term "hidden agenda"-something that was implicit in much of what was being said there?

You know, later on, of course, in '63 you had the Water Resources Research Act that gives money to the states for a lot of scientific research at the land grant universities. Was there any feeling about that? Was there any active involvement on the part of some organization like the ICWP [Interstate Council on Water Policy] or anything like that?

A: All of that came later. Let me just finish telling how we got the report finished. We did get it finished in January 1961, well within our budget. As a matter of fact, we didn't even spend all the money we had because we got some hundreds of thousands of dollars of free work from the federal agency people.

---

Theodore M. Schad

After Kerr had made the decision that the staff report would become the committee report, the consultants were brought in, Ed Ackerman, Abel Wolman, and Gilbert White, and we evolved some rather basic recommendations that we all could agree on. We had quite a number of recommendations in the first draft. Generally they were all of the nature that you just mentioned, for more scientific research and so forth. But they were all for accomplishment by the federal government in cooperation with the states.

But some of the members of the committee, Clair Engle, Phil Hart, Gale McGee, and Ted Moss, were not happy. You can see their supplemental views in the back of the committee report. They just didn't think that this report achieved what they had hoped to achieve. So when the committee met to review and approve the report, they wanted to change it.

Senator Kerr had a way of handling that. He said, "If you don't like this report, we will be glad to consider any changes that you want to make." And his technique for doing that was to read the report page by page. And so he started reading the report at page 1.

In a few minutes, they all folded. They had been pushed by staff people who wanted to use this report to beat the administration, the Eisenhower administration, over the head on water; I'm pretty sure that was the reason they wanted changes made. But when they sat there in a committee meeting, it was up to them, and they didn't really care. Anyway, they did write, or their staff wrote, supplemental views, which the committee had voted to permit them to include at the end of the report. And the primary thrust is for things that would have been considered if we had gone on with phase two of the study, as originally contemplated.

One thing in Senate Resolution 48 that was very hard for me to come to grips with is the part of the resolution that called for the committee to make studies of the extent to which water resources activities in the United States are related to the national interest. This goes to the point you raised a few minutes ago--what should the states do, and what should the federal government do--but it's even a broader question. Is it in the national interest that we provide flood control for everybody, that we provide all the water to everybody that they want, at cost?

Anyway, this was what Senator McGee, in particular, was driving at, but I think they were really trying to use it, you might say, to beat the Eisenhower administration over the head for not recognizing the national interest and for vetoing all these bills. And I think that was the original concept that led Mansfield, perhaps unknowingly, to introduce the resolution.

Q: Let me go back now to a question I wanted to ask earlier, and we got on to something else, because it seems to me this does require some clarification. You started off the discussion by suggesting that this resolution, Senate Resolution 48, was, to a large extent, a response to A-47 and the Bureau of the Budget—

A: No, I was talking about Senate Resolution 281 and Senate Resolution 148 of earlier Congresses being responses to A-47. I said that Senate Resolution 48 of the 86th Congress was a response to the Eisenhower vetoes of a number of water resources bills—

Q: Okay.

A: -the veto of the Army authorization bill, the water quality bill, the Reclamation small projects bill, and the public works appropriations. They had to cut the appropriations bill down to pass and also reduce the scope of the water pollution control bill.

Q: Would it be fair to say that there had been growing congressional disenchantment with administration policy for the eight years of the Eisenhower administration; that the vetoes culminate, in a sense, that dissatisfaction, and that, therefore, you have this Senate Resolution.

A: You've said it much better than I. That's the thing: growing disenchantment and the vetoes were the last straw, and an election coming up there and—

Q: I wanted to pursue this area a little bit further about the relationship between the federal government and the states, and what concern, if any, the Kerr Committee had about that relationship, whether in fact the committee saw some necessity on the part of the states to assume a greater burden in the research and planning and even constructing of water projects.

---

Theodore M. Schad

A: Certainly Ed Ackerman had that feeling. Remember he had served with President Truman's Water Policy Commission, which recommended decentralizing planning into river basin commissions, and also with the Budget Bureau trying to reduce the federal role to hold down the budget. So, Ed Ackerman had that at the back of his mind when he laid out the first draft of a program. This was before I was involved. We used Ed as a consultant and we talked about the role of the states. He used to say that he felt there was a resurgence in the states' ability to deal with their own water resources problems. At about the same time, you remember, there was the Kestenbaum Commission which made a report out of which grew the Advisory Committee on Inter-Governmental Relationships, and that was a current document at that time.

So Ed really felt strongly that there was a resurgence in the states. One of the things we did at the outset of the Senate Select Committee was to write to all states and ask them for their views as to what were their water resource problems, what should be done about them, and what was the relationship of water resources to the national interest. We printed the responses as Committee Print Number 6. It was a big, thick document with all these reports, but it was very, very unsatisfactory. It showed that some states, like California, were probably way ahead of the federal government. Really, the Central Valley project of California and the whole panoply of works out there was all laid out in a state of California report written about 1930, and the Bureau of Reclamation only came in when the state couldn't raise the money. A few of the other states were also well advanced in water resources.

But when we went to a state like New York with a letter to the governor, and we got an answer from the State Department of Agriculture saying that, "The real problem we have in New York with water is providing water for agriculture," some of us felt that they didn't have the ability to focus on the major problems. It seems obvious to us that the New York City water supply and the pollution of the Hudson River, which was what kept New York from using the Hudson River, were more important problems. Even at that time, the groundwater in Long Island was known to not be inexhaustible. So the response we got made us feel that they didn't know what their major problems were going to be in the future.

Then we got a letter from an assistant to the governor of West Virginia, and apparently they didn't have anything going on in the water resources field. I

**Water Resources People and Issues**

---

could name some other states that made us feel-or at least made the senators feel-that we were not yet ready to turn things over to the states yet. So Ed Ackerman's idea was not a major thrust with the committee. Remember, the members were in positions that enabled them to bring federal largess into their states. And Kerr, at least, felt that was his role.

Looking at the recommendations, as you pointed out, there were not a great many recommendations, but the first one was that the federal government, in cooperation with the states, should do comprehensive river basic planning in all the major river basins. That came about because of Senator Kerr's interest in the Arkansas-White-Red basin study. He felt that was wonderful because it provided lists of all of the potential projects and when his constituents wanted something he could go either to the Bureau of Reclamation or Corps of Engineers and get them to recommend it. And so the river basin planning was to be a state/federal undertaking. The recommendation starts out saying, "The federal government, in cooperation with the states" should prepare the plans. In other words, Kerr's thrust always was with the federal government being responsible.

And to encourage the states to cooperate, the committee's idea was that the federal government would give the states money to stimulate state participation, so that was the next recommendation.

And then, I guess because of the fact that we couldn't really resolve the questions about desalting or weather modification, scientific problems which are still far from resolution, the committee recommended that the federal government should mount a coordinated scientific research program on water.

**Water Resources Research Act of 1964**

So, the idea that eventually became the Water Resources Research Act of 1964 was not really considered by the committee, even though at the hearing in Detroit, probably in December of 1959, the idea was broached by a Professor [Raleigh] Barlow of Michigan State-the hearing was in Detroit but he was from Michigan State-and he said something very simply, like, "This problem is just as serious and it should be approached in the same way as we approached agriculture almost a hundred years ago in the Morrill Act. We need to establish university programs to find answers to water resources problems,

Theodore M. Schad

---

the same way we did with the land grant colleges in the Morrill Act.” I think it was 1862.

So Barlow was really the instigator of this idea which was incorporated into the Water Resources Research Act enacted in 1964. A lot of other people have claimed credit, and later I guess you’d have to give Senator Clint Anderson the credit for getting it enacted. Clint Anderson was a member of the Kerr Committee. He wasn’t at the Detroit hearing, but I may have discussed it with Ben Stong, who was Clint Anderson’s staff man on the Senate Interior Committee. He pursued the idea with Clint Anderson and lined up support from the land grant colleges. Ben Stong was the person who was assigned by Senator Anderson to help with implementation of the recommendations of the Select Committee. I was back at the Legislative Reference Service by that time and worked closely with Ben Stong. Senator Kerr had died on January 1, 1963, which was almost two years after the report was published and before any of the implementing legislation had been enacted. Senator Anderson, picked this up as chairman of the Senate Interior Committee, because the water research program was the responsibility of that committee.

One thing happened which was not remembered very much, but you remember I mentioned how closely the Geological Survey had worked for the Senate committee. They set up a whole section under Roy Oltman, and we had five or six people there working as hydrologists, providing the data which went into the Nathaniel Wollman study, as well as coordinating with all the other federal agencies.

The first thing that happened after the Select Committee report was issued was that President Kennedy, who had just recently taken office, sent a message to the Congress which more or less embraced the report with both arms. I sometimes wondered if he really loved it so much or whether he was trying to get Bob Kerr on his team because of some votes that were coming up. Anyway, President Kennedy’s message to Congress outlined what he was going to do. Among other things, he asked the National Academy of Sciences to do a study of water research, and he ordered the federal agencies to look into the planning side. That’s what really got things going.

At the Geological Survey, the Water Resources Division was headed by Luna Leopold at that time, and he proposed the establishment of a Water Resources Research Institute to make the research study that the committee recommended.

## Water Resources People and Issues

---

The survey sold the idea to the Bureau of the Budget, and in the budget that went up to Congress in January 1962—this would have been the budget for fiscal year 1963—there was a recommendation for establishment of a Water Resources Research Institute as a part of the U.S. Geological Survey Water Resources program. This was in the budget, and the Geological Survey has always taken the position that they didn't really need any more new legislation on research because they've got a broad, organic act which authorizes them to do almost anything in the water resources and natural resources area pertaining to research. And so the Water Resources Research Institute was put in as a line item in the 1963 budget. I don't remember the amount. It came up to the Congress and was favorably considered by the House Subcommittee on Interior Appropriations. This was in the spring of 1962.

I don't know exactly what happened after the subcommittee reported the item favorably, but it was not included in the appropriations bill when the appropriations bill passed the House. I was told that staff of the House Interior and Insular Affairs Committee had felt that this item needed legislation. I don't have any documentation of that, but I believe at that time Eugene Eaton was on the staff of the House Interior Committee and he was always very critical of the Geological Survey.

One way that the states got into this is that Ben Stong asked me to draft letters to all of the states and ask for their views about how we ought to approach water resources problems. Senator Anderson eventually published all of the responses in a committee print and out of that grew the draft of the Water Resources Act.

I don't know whether Ben Stong drafted the bill or whether he got the Interior Department or the Legislative Council to draft it, but it was introduced and eventually became law. It first passed in the Senate, but Wayne Aspinall was chairman of the House Interior Committee and he was not in favor of setting up new federal programs. It took a lot of persuading, which was done largely through Ben Stong, working with the president of Colorado State University, who helped to convince Wayne Aspinall that this would be a great thing.

Originally, in talking to Ben Stong, we had agreed that there should be not 50 research institutes but a series of regional research institutes to lessen redundancy. That idea was soon rejected because it was pretty obvious that

---

Theodore M. Schad

politically you more or less had to have something to get enough votes, something in every state.

In the meantime, it was still the Public Health Service that had the Water Pollution Control program. They moved right in and they set up a number of research laboratories, including the Robert S. Kerr Laboratory in Ada, Oklahoma. They set up a laboratory in the Great Lakes, and they took the regional approach, and they had these several laboratories and really were much closer to the idea that the Kerr Committee had than was the Water Resources Research Act. But, politics being what it is, the Water Research Act had the benefit of something for every state, and that's why it got through. Clint Anderson didn't have anything to do with the water pollution control labs because they were handled by another committee in the Senate, but they were certainly an outgrowth of the Kerr Committee. They may have even been entitled before the Kerr Committee report was completed because this was something that we talked about a lot when we were working with Mel Scheidt trying to get the Public Health Service to help us during the process of preparing the program report.

The other outcome of the Kerr Committee report-I'm talking now about the major recommendations-was for the river basin planning and the support for the states. My first efforts on that line, which were for Senator Kerr, were to draft a bill. For this I had to consult with the Legislative Council, which had to draft all bills.

They insisted on a rather arcane formula for dividing up federal grants among states. It was the same formula that had been used earlier for dividing up the money for the water pollution control grants. You should remember that the early water pollution control effort was grants for planning, coming out of the 1948 and the 1951 or '52 Water Pollution Control Acts. The formula was a rather difficult thing to understand, the way part of the money was going to be divided up according to population and part of it divided in accordance to problems, and this was so complicated that the first bill didn't get very far.

I'm not sure whether it was ever introduced, but later a bill was sent up by the Interior Department which eventually became the Water Resources Planning Act. This went far beyond what Senator Kerr had envisioned because it started off with establishing the Water Resources Council, and Senator Kerr was not

**Water Resources People and Issues**

---

at all interested in the Water Resources Council. He was interested in comprehensive plans.

He had no problem with the river basin commission idea, but the report had said, “the federal government in cooperation with the states,” was to do the planning. he had been thinking in terms of the AWR [Arkansas-White-Red] approach, which was essentially a river basin commission although the authority for it was in the Army Corps of Engineers. So Senator Kerr would have taken a position against the idea of a water resources council because he liked the system the way it was. He was getting what he wanted for the state of Oklahoma and didn’t want to complicate the system.

The bill went through several drafts over the next several years and finally became the Water Resources Planning Act of 1965. I have documented all this in a report called “The History of the Implementation of the Recommendations of the Senate Select Committee,” and I’m hesitant to go into any more detail because it’s all laid out in that committee print.

Q: Well, let me ask you some conceptual questions. Maybe that might help us focus on what you’re talking about. Again, I don’t mean to sound like a broken record. However, there has been some dispute among people-historians and others-about what was the intent in setting up something like a water resources council.

Some people argue it was an attempt to decentralize the administration and the power, really, in relationship to water resources development in this country, so that you would have more input from nonfederal interests, not just states but regional authorities and people like that. Others would argue that there really was no reallocation of power or anything like that, that it was purely an administrative convenience, almost, rather than anything else.

How do you see this?

A: Well, that brings up something else that was happening about the same time. You remember we had the FIARBC, sometimes called the FIREBRICK, and eventually the ICWR, sometimes called the ICEWATER, that had a Subcommittee on Benefits and Costs, which produced the Green Book on economic analysis of water projects. So it was probably as a result of the Senate committee recommending that the federal government should prepare

Theodore M. Schad

---

and keep up-to-date the river basin plans, that the Inter-Agency Committee on Water Resources [ICWR], issued a set of standards and procedures which was sent up to Congress and published as Senate Document 97, setting forth the procedures for doing the planning and analysis. And so I guess you might say that was a response to the Senate committee's recommendation, but not in exactly the way that the Senate committee had in mind. But it did come up and it provided a kind of a framework.

But it certainly couldn't be taken as a shifting of power to the states; at least, I never took it that way. It attempted to standardize the federal approach, it went into the interest rates and the economic analysis and so forth, and it went into the environmental side, the fish and wildlife, and the recreation. But it wasn't anything that Senator Kerr had envisaged. It may well be that Senator Anderson had some kind of hidden agenda on turning power over to the states, but he never divulged it to me. I don't think Senate Document 97 ever became congressional policy. It was really just a statement of the policies the administration was going to use in project analysis. I'd have to read what the President said when he sent it up, but I don't think it ever had as much standing as Budget Circular A-47, which I believe it replaced.

Q: Well it makes a strong pitch, of course, for multipurpose planning.

A: Yes, that's true but multipurpose planning has been an idea that's been in existence ever since back in the conservation movement when it was espoused by the National Conservation Commission and the Inland Waterways Commission. I'm not sure that anybody ever really understood what it meant back in 1910. But as the ICWR studies evolved into Senate Document 97, they eventually provided a kind of a foundation for moving ahead with the principles and standards promulgated by the Water Resources Council.

I'm probably wandering away from the thrust of your question, but I didn't sense at that time any real consensus that the Congress wanted to move power back into the states. And I think any thrust of that nature in the administration was largely as a result of the Bureau of the Budget's wanting to reduce the federal budget. But they were approaching it more through cost sharing than through putting responsibility on the states.

Water Resources People and Issues

---

### **Water Resources Council**

When the bill to create the Water Resources Council and the river basin commissions-the Water Resources Planning Act-when that first was introduced, the states were pretty much dead against it for quite a while until languages evolved that essentially gave the states one vote and the federal government one vote, which made the states **feel** equal. But I always looked on the river basin commission as a team consisting of one horse and one rider, the federal government being the horse and the states being the rider.

I think there may have been some commitment made to the states in order to get the Interstate Conference on Water Problems to support the bill. At first, the states wanted to have a representative on the Water Resources Council, but the Justice Department and other federal people opposed it, arguing that it would be unconstitutional to have a federal agency with an officer appointed by states and not a federal employee. But I think as a kind of a sop to the states, they agreed that one of the principal officials of the Water Resources Council would be from the states, and the states did see that Harold Wilm from New York was appointed as an assistant director. I guess he was supposed to be the state representative in the administration of the council, but he was not a member.

One of the big mistakes when the staff was set up was the agreement that there be on the staff one person from Interior and one from the Corps of Engineers and one from the Agriculture Department, just to kind of, you might say, protect the interests of the various departments. In a way, it kind of emasculated the council; kept it from really doing any staff work that adversely affected any of the agencies. And there's a provision in that act that said nothing in this law setting up this council shall have any effect on the activities or authorities of existing federal agencies. So, the council was kind of emasculated before it was created.

### **Department of Natural Resources**

Q: Well, if you don't mind, let me go back a bit and I want to trace a couple of things here. First of all, Henry Caulfield, when I interviewed him, suggested that in 1961, soon after Kennedy became President, a small group of people within the Department of the Interior agreed for the creation of a Department

---

Theodore M. Schad

of Natural Resources, obviously with one intent being to assimilate the civil functions of the Corps of Engineers into this department.

But the White House staff basically said, “No, we don’t want to do it that way.” The White House, according to Caulfield, was under the influence of Richard Neustadt, a Harvard political scientist who argued that the separation of functional areas can work to the advantage of the President. The argument was that you don’t want to have big departments with so much power that they can actually undermine the power of the President.

And so the Department of the Interior people fell back on the idea of having the Water Resources Council bring all of the agencies together. In other words, Caulfield argued that the idea for the council came up in the Department of the Interior. Whether it came up before or independently or whether Clinton Anderson or other people in the Congress were involved I don’t know. I don’t think Caulfield answered that question. Do you have any knowledge of any of this sort of stuff?

A: What I can verify is that there was a group of people in the Interior Department promoting the idea that there should be a natural resources department when I was working there in the 1940s. At the time of the first Hoover Commission, we did a lot of work on material that was sent over to the task force on water and power or whatever they called it at the first Hoover Commission on this subject. As I recall, it was about the same time that I worked with Arthur Maass on the Pine Flat Dam history. I think the idea of having a Department of Natural Resources was also under consideration in the early years of the Eisenhower administration. The member of the Senate Select Committee who favored having a Department of Natural Resources was Senator Frank Moss of Utah. It never came up in the committee, but he later introduced legislation several times.

But I was not privy to the arguments within the administration about the proposal to create the Water Resources Council. When the proposed legislation came up from downtown, I thought it might lead to something that might evolve into an independent agency like the Federal Power Commission. You remember, the original Federal Power Commission created in 1920 was not an independent agency. It consisted of the Secretary of War, the Secretary of the Interior, and the Secretary of Agriculture. It was set up in 1920 with a staff that was supposed to do comprehensive planning to provide a background for

licensing hydroelectric power development. I don't know the details of how it evolved into an independent agency, but I think it started when it tried to do comprehensive planning on its own. The Corps of Engineers saw this as a threat to its water resources authority and started the actions which eventually led to the Corps' being authorized to make the 308 reports. It was not my idea, or the Select Committee's recommendation to set up the Water Resources Council, but I had the hope that once it was set up, it might evolve into an independent agency, and we would have a group with some power to do rational comprehensive planning with the states.

That was an idea of mine, but I can't remember whether I've ever articulated it in a published article. I may have said it in a speech or answered a question, but anyway, that was the idea in the back of my head. It would have been something like a Department of Water Resources which might well have expanded into a Department of Natural Resources if Henry had said there was a group at Interior that had something like that in mind. I'm sure there was, because he was there, but I think they were primarily interested in aggrandizing the Interior Department by bringing in the water resources programs of the Corps. I don't know exactly what was Henry's role in the department, either in the Truman administration or when he came back in the Kennedy administration with Stewart Udall. He was one of these people in the department that always came to meetings, but you never did know really what they did except that when they stopped you from doing something, they could pretty well do it because they had the ear of the secretary.

Q: Let me ask you another question along the same lines. The relationship between Senate Document 97 and the Water Resources Council, now, it may be that there's no real relationship, but if I as an historian look at the Water Resources Council some time after 1965 and I also look at some of the guidance offered in Senate Document 97, I can easily jump to the conclusion that there was a relationship. In particular I have in mind that Senate Document 97 talks about regional planning, river basin planning basically. It talks about multipurpose planning in the sense of treating hydroelectric power generation and recreation facilities and fish and wildlife conservation as subjects that have to be responded to and integrated in any kind of water project plans.

So, you know, the Water Resources Council, with its strong emphasis on river basin planning, would seem to be a natural outgrowth of that kind of approach. Am I wrong?

---

Theodore M. Schad

A: No. There's a direct relationship. But it didn't spring full-blown in Senate Document 97. It came out of the Green Book, for example, and all the other work of the Federal Inter-Agency River Basin Committee. You remember that FIARBC set up a Missouri basin inter-agency committee, and one in the Columbia basin. Then, of course, the Arkansas-White-Red and the New York-New England and the Southeast River basin committees or commissions, set up legislatively, were all part of the evolving consensus on river basin planning. So I don't really see that there's any great difficulty in getting from the work of the FIARBC down through the ICWR to Senate Document 97 and the Water Resources Council.

The impetus for Senate Document 97 was to let the Congress know how it was going to be done. I think the President demanded that they send it up to show how they were responding to the Senate committee. And the same people were involved: Henry Caulfield from Interior, Reuben Johnson from the Army Corps of Engineers, and Harry Steele from Agriculture. They were all involved with the Inter-Agency Committee on Water Resources and its task forces or subcommittees, and they were the top staff people in the Water Resources Council. Of course, there were many others involved over the years.

So you basically had the same people doing essentially the same thing, but within a different organizational framework. But in the Water Resources Council they had a mandate to have principles and standards and procedures, which gave them a much more sturdy peg to hang their hat on because all of the FIARBC was voluntary, and even the ICWR, while the President had set it up, had no enforcement powers. No department had ever formally adopted the Green Book. In other words, they all agreed to publish it, but they never said, "We will follow the Green Book." They said, "We will follow the Green Book as long as it doesn't interfere with our statutory responsibilities."

Q: Well, there again is one of the reasons why it would seem, going back to Senate Document 97, that while you can trace the evolution of that document back to the Green Book and some other early inter-agency reports, it would seem like there had to be a catalyst. Obviously a Democratic administration coming in was important, but it had to be responding to something. Otherwise, you know, it wouldn't have received that presidential imprimatur and become executive branch policy. It was not executive branch policy until 1962, even though you can see the evolution, so something happened, whether it be the Kerr Committee report, whether it just be just general dissatisfaction with the

**Water Resources People and Issues**

---

way things had been treated or whatever, to convince Kennedy that that document was necessary at that particular time, and I guess—

**A:** Well, I wasn't in a position to know why he sent it up at that time. Remember, I was in the legislative branch then, back at the Library of Congress. But I feel sure that Senate Document 97 was presented to Kennedy for his signature—and I haven't looked at this document for probably a decade or more—in response to his decision to implement the Kerr Committee report. I think the real reason was that he needed Kerr's vote on other things, and he saw promoting the Kerr report as one way to butter him up.

**Q:** Don't forget, he also, shortly after he became President, sent a special message to **Congress**—

**A:** Yes, that's what I referred to a few minutes ago, and in that message he told them to do what was needed. That was the basis for the Geological Survey's attempting to have a Water Resources Research Institute. But whether this group within the Interior Department that was pushing for a Department of Natural Resources was using the message, hoping to take over the whole water resources area had anything to do with the President's message, I don't know. I was not in a position to know how it came about, and so I can't trace the history of it the way Henry Caulfield probably would. But Henry was in the Interior Department; he would see things as a part of Interior policy whereas if you went to Gene Weber, he would probably have seen things differently from the viewpoint of the Corps. I don't really know who in Agriculture was involved in this.

Agriculture was more or less left in a shambles, as far as water policy was concerned, after Secretary Benson disbanded the Office of Land Utilization. The way it looked to me, there was no real overall coordination in the department, so I don't know what they were doing in the beginning of the Kennedy administration. I can't even remember who was the Secretary of Agriculture then. There was an assistant secretary who served on the ICWR, but I can't remember his name either.

So, I don't think I can help you in getting the rationale for Kennedy's actions.

**Q:** Well, let's go back to you and what you were doing specifically. How long were you actually working for Senator Kerr then?

Theodore M. Schad

---

A: Really, just for about 20 months, from May 1959 through January 1961, and then I went back to the Library of Congress. Of course, there were all kinds of things waiting for me to do. I was still the senior specialist in the engineering and public works field, and I had a lot of other responsibilities in the public works area, but most of my work was in water resources. I did a lot of work with the House Interior Committee. One of the first reports I did when I started work in the Legislative Reference Service was on the accomplishments of the reclamation program. It was published as a committee print. Later I did another study highlighting the problems of the reclamation program. They decided not to publish it because it unmasked the idea that this program was reimbursable by just laying out the economic facts that showed that some projects were paying back 2 percent and some projects were paying back 15 or 20 percent, but the average was somewhat less than 15 percent, probably even less than 10 percent of the total economic cost.

I guess Wayne Aspinall, God rest his soul, didn't think that would be helpful for what he wanted to get done in Colorado and what the committee wanted to get done in the West, so that report was never published. But I still worked with the committee quite a bit on specific projects, but if you asked me, "What did you do, what did you contribute between 1961 and 1968—"

### **Public Works and Water Resources, Library of Congress**

Q: That was my next question.

A: -it's hard to really put my finger on things. But just to get some levity into this discussion, which has been so serious for the last few minutes, I remember I used to lecture to the planning associates or whatever they called them at the Corps of Engineers and also the district planning officers. One time they asked me to go down to Dallas to talk to the group. Of course, they said they would pay my way and make the reservations. But the Library demanded that the Corps not pay for my ticket but that I buy my ticket and that the Corps would reimburse the Library which would reimburse me. So the Corps made the reservations for us all to fly on American Airlines to Dallas. I think it was American Airlines because I remember it was what they called a champagne flight on a Lockheed Electra and we sat up in the front there, four of us at a table drinking champagne with our lunch because the Corps had made reservations to travel first class.

**Water Resources People and Issues**

---

When I put in my travel voucher to the Library, with the appropriate papers for them to get reimbursement from the Corps, they wouldn't reimburse me. They said, "You don't have authority to travel first class, so we can't reimburse you for any more than the coach fare." Of course, I responded, "But I didn't make the reservations. The Corps of Engineers made the reservations and I just bought the ticket. They made the reservations, and they're going to reimburse you, so why don't you just pay me and they'll give you the money and it won't make any difference." And the reply I got was, "No, positively only the librarian can travel first class-not even the deputy librarian can travel first class-and you have to have authorization."

And so I called up whoever I had been working with in the Corps of Engineers, and I said, "How do you guys get to travel first class?" And they said, "Oh, it was simple. We just wrote that we were traveling with a high official of the Library of Congress that justified first class travel."

So then I wrote a memo back to the Library's accounting office saying that this trip was arranged for me to travel with high officials of the Corps of Engineers and it was deemed appropriate that we travel first class, and so they paid me.

This was just indicative of the kind of bureaucratic approach that the Library of Congress had. Everything had to be in accordance with the rules.

**Q:** Well, let me ask you about some specific projects. If they register in your mind, let me know; if not, we can just pass right over them; but there were some very, very controversial projects being developed or considered during this time, and I'm wondering whether you had any chance to provide some input. The Rampart Dam in Alaska. Were you ever asked by a congressional committee to do any kind of study or report on that?

**A:** No, I never got involved in Rampart. Let me mention one other thing that was happening during the middle years of the '60s: the enlargement of the federal responsibilities in water pollution control. There were several very important acts, under which the program moved up from the \$50 and \$100 million-a-year program, which had been first vetoed by Eisenhower and passed over his veto, into the billion dollar class. They kept the responsibility in the states, but each state had to get a plan approved and standards approved to get the federal money.

---

Theodore M. Schad

It was really peculiar but I never got involved in that program. As far as I can remember, the Legislative Reference Service was never asked to do any work in that field, which became one of the biggest water resource programs of the federal government. On the House side the committee that was handling that program didn't seek any help in that field of its activity, and on the Senate side it was largely Senator Muskie who carried the ball on water pollution control. I was never called on to help that subcommittee, although I worked quite a bit with the staff of the Public Works Committee on other programs. Water pollution control legislation was handled in a different subcommittee.

Incidentally, talking about Senator Muskie, I mentioned that the Senate Select Committee had held hearings only in the states where the members were from, except for Massachusetts and Maine. Senator Muskie asked that a hearing be held in Maine, and we had that hearing in Augusta on a cold, wintry, blizzardy day in Augusta. All of the state officials came before the committee and said, "We don't really have any water problems here. Everything is fine," but the environmental interests came and complained about the polluted rivers and other environmental hazards.

We had briefed Senator Kerr and given him questions to ask about East Coast salmon-there used to be quite a salmon run in the East Coast-and the clam beds and other water pollution related problems that were not being taken care of. When he asked about the environmental interests, they told him there was no salmon because the paper mill wastes had pretty well wiped out all of the biota in the streams.

When Senator Kerr was asking the state officials about these problems, they squirmed and gave some rather weak responses, so he continued with some rather pointed questions. It was like a cross examination, and Kerr was good at it, and he started boring in on state officials, cabinet officials in the state government. He was asking the questions that I'm sure Senator Muskie knew and could have asked but thought it was better not to be too rough on his home-state constituents, and so he let the out-of-state senator ask them. In a sense Kerr was more or less beating the state officials over the head and embarrassing them because they were not giving him the same answers that he had been getting from the environmental spokesmen.

The local people in the back were clapping while Senator Kerr was giving their officials a bad time, and Senator Muskie seemed to be enjoying it. I had the

**Water Resources People and Issues**

---

feeling that this was a kind of epiphany for Senator Muskie and made him realize that coming on strong for the environment was good politics. Later on, he made pollution control a major thrust in his campaign for the presidency in 1972. Unfortunately he was knocked out in the primaries, but he continued his career in the Senate as "Mr. Clean." I always felt that the Augusta hearing of the Select Committee is where he really got the message about the political importance of being for pollution control by watching the way Senator Kerr handled the water pollution issue there and seeing how it was so popular with the people in that hearing room.

Another interesting thing at that time which is completely irrelevant and I probably shouldn't mention. The request to have a hearing in Massachusetts was from Senator Jack Kennedy. There was a blizzard or a bad storm, so we had to drive from Augusta down to Boston and at 70 miles an hour in a snowstorm because there was a reception for us that night before the hearing the next day. When we got to the Massachusetts line, there was a phalanx of policemen on motorcycles and squad cars with sirens blaring to speed us along. I remember it well because Senator Kerr and Senator Muskie were riding in a big Cadillac limousine and I was riding in a Rambler, driven by somebody I didn't even know. They were driving at 70 and 75 miles an hour with this police escort, and we were trying to keep up on snowy roads and hoping we would get there in one piece.

We finally got there, to the Copley Plaza Hotel and they had laid out a reception and a spread for us which could not be equaled, followed by a sumptuous banquet. The next day we had the hearing in the Federal Courtroom, with Speaker John McCormick sitting up there with us; Senator Kennedy wasn't there. And they brought in a very fancy luncheon, which we had to take turns eating because we didn't plan to have a luncheon break. Because of my conservative nature, I kind of protested and told them we were not used to being treated like that.

But I was told that having this hearing was very important to Jack Kennedy and that he had asked that we be given the best of everything. So I thanked them profusely, saying that we appreciated it very much, and I said something like, "This must be costing you guys a fortune." And again I was told that Kennedy had asked for us to be given a royal treatment.

Theodore M. Schad

You remember, this was at the time of the beginning of the 1960 campaign. It was December 1959, and Jack Kennedy was already a candidate and so was Lyndon Johnson. And I don't remember just when it was, probably several months after the hearing, Bob Kerr announced that he was supporting Lyndon Johnson.

About a week later we got a bill from the people in Massachusetts for \$1,500 or \$1,800 for the banquet and the reception and the luncheon, and maybe even for the police escort. I'll always feel that they didn't send that bill as long as they thought maybe Senator Kerr might be on their side.

Q: Amazing.

A: Well, I had a lot of interesting times with that committee.

### **Recreation Act**

Q: Ted, there were several acts passed in the mid-1960s of rather important significance to the environmental community and others. One act, for instance, was the Recreation Act in which Congress mandated that the value of recreation could be used in calculating the cost-benefit ratio to justify projects. Did you get involved in that legislation? Then there was another act, establishing the Land and Water Conservation Fund, in which Congress specified that funds collected from park fees and so forth could be used to purchase more park lands; there are some other aspects to that legislation. Were you involved in that?

A: As to recreation, the agencies had used that all along. The Corps of Engineers had a law, going back as far as 1930, which said that recreational boating shall be considered as coming within the definition of commerce and as commercial navigation.

Then the 1944 Flood Control Act authorized the Corps of Engineers to include provisions for recreation in reservoir projects. That law, in my opinion, makes recreation a federal purpose just like flood control or navigation.

Q: But the '44 act authorized the Corps to build recreation facilities. It did not specify that recreation should be calculated towards the cost-benefit ratio to justify a project.

A: Well, remember, the defining statement that Congress made about benefits in the [1936] Flood Control Act was that if the benefits to whomsoever they may accrue shall exceed the costs, then federal participation was warranted.

But the Congress never specified how you calculate the benefits. That left the door open, and so the Corps could use recreation benefits. If that had been an authorization for the Bureau of Reclamation and Michael Straus had been the commissioner, they would have picked up the ball and run with it. As it was, they had nonreimbursable allocations to recreation in some of those reclamation projects. This was one of the things that Budget Circular A-47 tried to put a stop to by requiring a local contribution of half the cost of whatever the benefit was.

#### **Land/Water Conservation Fund Act**

I may have commented on the recreation legislation to the staff of the House Interior Committee, but I didn't do any major study on it. And the Land and Water Conservation Fund Act more or less stemmed from the work of the Recreational Resources Review Commission, which broached that idea. The Interior Department picked up the idea from the commission report and sent up the proposed legislation. But no, I wasn't consulted on that.

Q: How about the Wild and Scenic Rivers Act? That was passed in '68, I believe.

A: Yes. Incidentally, one time somebody wanted to give me an award for being the father of the Wild and Scenic Rivers Act because there is somewhere in the Senate committee report some kind of a favorable comment about this concept, suggesting we ought to consider the importance of preserving some of these rivers in their natural state. I couldn't accept an award for that because the idea came from the National Park Service in the report that they wrote for the Senate committee. The report was prepared by Ben Thompson, a staff member of the Park Service. I think he originated the idea. And so when somebody called me about that many years later, I referred them to Ben Thompson.

But I was sympathetic to the idea of preserving natural streams because I had been involved in promoting the Wilderness Act when Howard Zahniser was the executive director of the Wilderness Society. I've been a member of the Wilderness Society for a long time starting when I was in Seattle. And also, at one point, I was on the Secretary of the Interior's advisory committee on conservation as a representative of the Seattle Mountaineers. I became a member of the Seattle Mountaineers when I lived in Seattle. One of my friends was the president, and since I was living in Washington he asked me if I would represent the Seattle Mountaineers on this group.

This was an informal advisory committee, set up long before the Federal Advisory Committee Act, and what we did would probably be illegal now. It was a group made up of representatives of conservation interest groups like the Outdoor Writers Association and the Izaak Walton League and many others. I developed a friendship with Fairfield Osbourn from the Conservation Foundation, and Howard Zahniser from the Wilderness Society, and a lot of other representatives of the so-called conservation organizations. That was before the term "environmental organization" came into use.

So I had been supporting the conservation of the wilderness areas and maintained a liaison with Howard Zahniser when I was down in the Bureau of Rec-lamation, but I didn't have anything to do with the Wilder-ness Act authorization. I was spending my vacations climbing mountains out in the West—the Wind River Range in Wyoming, the Cascades,



Theodore Schad at camp, Wind River Range, Wyoming. August 1948

**Water Resources People and Issues**

---

the Sierras, and the Colorado mountains, as well as the Selkirks and the Canadian Rockies. I had a personal hope that the mountainous areas could be preserved as wilderness. That's why I was sympathetic when Ben Thompson suggested the importance of preserving wild and scenic rivers in the Park Service report to the Select Committee.

I never did get further involved in the passage of the Wild and Scenic Rivers Act. But among other things, I used to enjoy white water rafting, and it's nice to think that there will be some streams that don't have dams on them and will still have rapids. But it is a fact that some of the best white water boating in this area is below the Corps dam on the Youghiogeny and some of the other rivers where they make releases specifically for that purpose. I suppose this is under the authority of this Recreation Act.

Going back to the use of benefits to justify projects, the Corps, when it recommended the Salem Church project on the Rappahannock River in about 1948, about 60 percent of the benefits were recreation benefits. The project was never built, and I'm not sure what the percentage of the benefits was for recreation, but it was at least half. So in preparing for the Interior Department's comments on that report, which were required under the Flood Control Act of 1944, we took in a holier-than-thou approach, and pointed out that we couldn't really see the great advantage of having that much flat water recreation when you had the whole estuary of the Rappahannock below Fredericksburg and the Chesapeake Bay, and so we questioned those benefits.

I have the **feeling** that the recreation legislation just put some new parameters, with congressional and executive office sanction, on what the agencies had been doing for some time.

**Q:** Let me turn away from legislation for a moment and talk a little bit about what's happening within the engineering community in terms of water resources and planning development. In particular, I wanted to get your response to what's coming out of Harvard University. I'm talking, of course, about the Harvard Water Program, of multiobjective analysis as distinct from multipurpose. Did you get involved in any of this activity from the Harvard Water Program. When did you first learn about it and what was your response to it?

---

Theodore M. Schad

A: I didn't get involved with that program at all, and I suppose my first involvement with it was when the book was published. I had several very close friends who were involved in that. Maynard Hufschmidt, with whom I had been associated in the Department of the Interior, was one of the people who had quite a hand in that along with Blair Bower, who is another very good friend of mine. There were some others, members of the Bureau of Reclamation and the Corps' staff who were working on that, and Francis Murphy who was an expert on flood control that I knew from my Corps of Engineers days.

I may have talked to some of them about it earlier, but my first fixed recollection was when Arthur Maass, who was one of my college classmates, came to testify about it before-probably before Senator Anderson's committee on Interior and Insular Affairs. I hadn't even read the book at the time and it's not exactly the kind of report that you would read unless you were having trouble sleeping, but it had some good concepts in it. I knew that just from knowing a little bit about it and having heard what Arthur said about it. So, when Arthur and I were having lunch after the hearing, I suggested that we should try it out on a sample basin. I'm probably exaggerating a little, but my recollection was that Arthur-I don't think he would like it if I called him by the nickname we used to call him at Johns Hopkins, which was Otts—

Q: How do you spell that?

A: I never had to spell it, but I guess it was O-T-T-S.

Q: Why did you call him that?

A: I think it may have been a childhood nickname, but I don't think he liked to remember it. Anyway, he seemed to recoil in horror and said something like, "Ted, no, this is a theoretical analysis. This isn't ready to be applied yet." Of course, my idea was to try to apply it in one basin and see if it worked. That was my recollection of my first introduction to it, and eventually I referred to it a lot and I used it in discussions, but it needed a lot of practical work to be of value. If it had been available to the Select Committee, I would probably picked it up and run with it, and probably stubbed my toe.

But about that time, the Water Resources Council, starting from the base of Senate Document 97, started to prepare the principles and standards. They did

**Water Resources People and Issues**

---

such a voluminous job with their salmon-colored reviews and blue-colored reviews; there were levels of reviews that pyramided one on top of another to an extent that, to be frank, it was hard for me to follow it, and I didn't have time because I had other responsibilities at the Library. At one time I found that I was the only engineer or scientist of any kind in the Legislative Reference Service, so I had to get involved in all kinds of requests for advice in connection with the space program, which was not my primary interest.

Then there was another thing that interrupted my work at the Library of Congress, and I should have mentioned it when we were talking about the origin of the 1964 Water Resources Research Act. A colleague of mine, Ed Wenk, who was executive secretary of the Federal Council for Science and Technology in the early years of the Kennedy administration, was having great trouble dealing with the problem of water resources research. There was a Committee on Water Resources Research with members representing all the agencies which had research programs. The Interior Department was represented by Luna Leopold from the Geological Survey and by Eugene Eaton who had just come into the secretary's office. According to Wenk, those two could not ever agree on what the departmental program was or should be. So every meeting of the Committee on Water Resources Research had erupted into arguments. Why the Secretary of the Interior had two representatives, I don't know, but when it came time for the representative of Interior to chair the committee, it would have been a donnybrook, because the two could never agree on anything.

So Wenk asked me if I would come down and essentially chair or staff a committee of which I couldn't be a member because I was in the legislative branch and it was an executive branch committee. The objective was to get a report to the President on the subject as a part of the response to the Select Committee's recommendation for a coordinated research program, necessary because the Geological Survey's proposal in the FY 1963 budget had been rejected. This was in the fall of 1962. I'll never forget the time because it was at the same time that the Cuban missile crisis erupted. I was working day and night on this project, and my wife said that I was the only person in the United States who didn't know about the Cuban missile crisis.

We were working against a very short deadline, and I was hard pressed to try to bring some sense out of the work of this good committee. There were at least 15 or 20 members, most of whom were easy to get along with and did

---

Theodore M. Schad

their share of the work, but I was not able to defuse this argument between the two representatives of the Department of the Interior. I hate to bring this up because it was such a nasty personal fight, and it kept us in a turmoil. I was down there only for a couple of months, working in Theodore Roosevelt's former house with a bay window on Jackson Place overlooking Lafayette Square.

The way we finally resolved this conflict within the department was that Stuart Udall appointed Roger Revelle as his science advisor, and he became the departmental representative. I had no problem at all working with Roger Revelle. In fact, he was wonderful to work with and was a very staunch supporter of my work. My only problem was that I never could get any work out of him. I had to write all of his stuff because he would promise to write something and wouldn't do it, but he gave me the ideas. I've had that happen to me many other times. But anyway, so I was down there working very hard on that in 1962, and that report on federal water resources research activities was eventually sent up to Senator Anderson's committee. It was published as a committee print.

That was another antecedent of the Water Resources Research Act. There's a provision in the Water Resources Research Act calling for coordination of federal water resources research activities, and Jerry Weisner asked me to stay and chair it for the first year, but I wanted to get back to my work at the Library, so they got Bill Ackermann from Illinois.

Q: One of the reasons why I asked you about the multiobjective system that the Harvard Water Program came up with is because in the water bill that was passed in 1970, the Congress directed the Water Resources Council to develop the principles and standards in accordance with four categories or what were later called "accounts" - national economic development, environmental quality, social well-being, and regional development.

Do you have any knowledge about whether the multiobjective approach that came out of the Harvard Water Program influenced Congress to direct the Water Resources Council to prepare the principles and standards along those lines? I'm trying to see whether there was at any time direct cause and effect, of course, between the theoretical approaches being developed at Harvard and the latter planning guides that come out of the Water Resources Council.

**Water Resources People and Issues**

---

A: I can't really say for sure how that evolved, but I think that the Congress was responding to the studies of the Water Resources Council. Remember, the Water Resources Council was created in 1965 and the staff was appointed early in 1966, so they had been working several years on this, producing what I referred to as the salmon-colored books and the blue-colored books, as they went through several stages of review. I think the reason that the Congress put that provision in the law is that the Bureau of the Budget didn't like the four objectives. They were called "objectives" at first. The Bureau of Budget never really liked anything that the Water Resources Council did as far as I know. And the Bureau of the Budget wouldn't accept anything but the national economic objective. I'm sure that somebody from downtown went up to the committee staff and told them that the Bureau of the Budget was opposing multiobjective planning, and so that provision was put into the 1970 act. I'd have to look at that to see whether it was applied to all agencies or just to the Corps because it was the Corps' authorization.

Q: It was the Corps' act, that's true.

A: But you have jumped ahead of the time when I had an important career change. And again it happened to me in a very embarrassing way. In 1965 I was at an Engineering Foundation Research Conference for a week, at a small college someplace in New England. It was a conference on the subject of solving difficult problems. There were all kinds of people there, including General "Weary" Wilson from the Corps. Whether he was still Chief of Engineers then or whether he had retired, I don't remember. This was a conference patterned after the Gordon Research Conferences, where you have a session in the morning and then you interact in the afternoon among your participants, and then you have a session in the evening. So you really put in a full day, but it's divided into morning and evening, and the afternoon is this informal reaction around a swimming pool or on the golf course.

While I was up there, the director of the Legislative Reference Service, Lester Jayson, called, trying to get me, and he was told that I was out playing golf. He called again the next day, and I was again out playing golf. So when he finally got through to me, he said, "What are you doing up there? I didn't send you up there to play golf. You're supposed to be learning how to solve problems." Well, it kind of put me off my guard, so when he told me that Ed Wenk, who by that time had left the White House staff to serve as chief of our Science Policy Research Division, was wanted at the White House to direct the

Theodore M. Schad

---

National Council on Marine Resources, and that Ed wanted me to head up the division temporarily, while he was gone, I felt that I had to say yes.

So in 1965 I became acting chief of the Science Policy Research Division, while still holding the senior specialist position. The dual role continued two years later when they asked me to be deputy director of the Legislative Reference Service. This gave me much broader responsibilities, so I didn't do as much in the water resources field. But I kept the two offices, and my research assistant, Elizabeth Boswell, so we were able to field some of the important requests, writing papers on congressional interest in water resources and preparing legislative histories of the Water Resources Planning Act and also the Water Resources Research Act and the history of the implementation of the recommendations of the Senate Select Committee.

But that's why I have trouble answering the question "What did you do in the 1960s?"

### **Legislative Reference Service**

Q: So you were doing a lot of supervision as well as your water resources work.

A: Yes, that's right. The deputy director of the Legislative Reference Service at that time really could have been called the director of research. The deputy director was responsible for all of the research output responding to over 100,000 inquiries every year. Most of those were very simple inquiries for information, but many of them were very significant research projects, and those were the ones that I had to kind of supervise.

Q: How many people did you have working for you then?

A: Well, the service had about 300 or 320 researchers and support staff. The director handled the budget and liaison with other divisions of the Library. If he was not there, I had to fill in for him. But it was not a big agency at the time and we had no assistant directors. There were just a director and a deputy director and about six division chiefs and a dozen independent senior specialists. As deputy director, I was de facto chief of the Senior Specialists Division and they all reported to me.

Well, anyway, that does bring us up to my work on the National Water Commission, which I consider the most important work I have done in water policy. Actually, the Kerr Committee had a much better reception and was essentially implemented within a few years which is unusual for a study commission report. The key reason was that the study was made by people who were in a position to influence the implementation of the recommendations, which is a lot different from a presidential commission where the appointees are appointed and do their work and then are gone.

The legislation for the National Water Commission was passed in September 1968. It was proposed in the comments of the Bureau of the Budget on the Bureau of Reclamation's proposal for a Lower Colorado River Basin project. This project was proposed after the end of what we used to call the "long suit," the Arizona versus California law suit over the division of the waters of the lower Colorado River.

The flow of the river had been more or less allocated between the upper and lower basins by the Colorado River Compact in 1922. Of the 7.5 million acre feet allocated to the lower basin, California was to have 4.4 million acre feet, Arizona was to have 2.8 million acre feet, and Nevada was to have 0.3 million acre feet. In addition, Mexico was to have 1.5 million acre feet. Projects to allow the upper basin states to use its 7.5 million acre feet had already been authorized, so it was quite obvious that there wouldn't be enough water for all of the projects, since the average virgin flow was down below 13 million.

When you allowed for Mexico's allotment, there wasn't nearly enough water. In the meantime, California had started using, oh, something over 5 million acre feet. The Supreme Court decree had set up a procedure for allocating the shortages, but I won't go into that because it's a very complex decree.

But the Bureau of Reclamation moved right in after the decree was made final and proposed the Lower Colorado River project, which at various times and through various stages involved Bridge Canyon Dam and Marble Canyon Dam bracketing the Grand Canyon National Park on the Colorado River. Glen Canyon Dam had already been built near the division point between the upper and lower basins and provided storage for the upper basin to make its delivery to the lower basin.

Theodore M. Schad

---

When it made its recommendation for authorization of the Central Arizona project, which was to be the primary user of Arizona's water, and if there obviously wasn't enough water, the Bureau of Reclamation had a very simple solution. In the same legislation, they proposed authorization of studies of means of augmenting the water supplies in the Colorado basin. This could only be interpreted by the people of the Pacific Northwest as a threat to their water supplies by diversion from the Columbia River basin. Scoop Jackson stood guard against this eventuality in his position as chairman of the Interior and Insular Affairs in the Senate, so the authorization was not likely to be enacted.

The authorization of the studies could obviously have led to recommendations for very expensive water projects, which was anathema to the Bureau of the Budget. So in commenting on the Bureau of Reclamation's report on the Lower Colorado River project, which is primarily the Central Arizona project, Elmer Staats signed a letter saying before we authorize anything like this, we ought to have a study of all the water problems in the whole country and evolve policies for future water development so that we don't get into this procedure of authorizing something which becomes essentially a blank check for a lot of further studies, which will require a lot of money to implement and particularly a lot of money to solve the problems.

So this letter was sent up to the Congress with the request for authorization of the Central Arizona project. Carl Hayden was still in the Senate, still the president pro tern, so there wasn't any question that the Central Arizona project was going to be authorized. There were enough chits out on that, so the votes were going to be there. And so the legislation for the National Water Commission was authorized. The authorization for the commission at one time was in the same bill as the Central Arizona project, but they took it out and they had a separate bill.

There had been several earlier efforts on the part of a congressman from California to authorize a water resources study. I cannot remember his name, but he had introduced a bill calling for a national water commission to evolve water policy. And it had probably been introduced in 1965 and again in 1967, but no action had been taken. I don't even remember for sure who introduced the National Water Commission Act on the Senate side, but it was probably introduced by Wayne Aspinall by request on the House side.

Water Resources People and Issues

---

On the Senate side, I think the bill went through right away without any problem, but on the House side, Wayne Aspinall had some problems with it. I think I told him I didn't see the need for the study because it seemed obvious to me that water resource policies were going to continue to be evolved on a case-by-case basis, such as the Recreation Act which you mentioned, the Wild and Scenic Rivers Act, and for specific projects. The one comment that I made was that if this was going to work, you had to put the full responsibility in the chairman, subject to general policies laid out by the commission. This was based on my observation of the Water Resources Council, which I didn't think was working very well because the chairman didn't really have any authority. While he had appointed the executive director, it appeared that each of the other members of the council had appointed an assistant director from his agency, and it was not at all sure that the staff was independent.

The only other input that I had to that act was to recommend that the commission's report be sent simultaneously to the President and the Congress.

The Central Arizona project legislation was passed first, and the National Water Commission Act was passed soon afterward in late September 1968. Scoop Jackson had a lot to do with the negotiations that led to the appointment of the members of the commission. In fact, at one time a draft of that legislation had called for the members to be appointed by the President and confirmed by the Senate, however, it was argued that it was not appropriate for members of a study commission to be confirmed by the Senate. When they took that provision out, the legislation stalled and it was rumored that Scoop wasn't going to let it pass until he knew who the members were going to be. One of my colleagues called it preconfirmation-all of the members confirmed by Scoop Jackson before he'd let the legislation pass. It was quite obvious that they knew exactly who was going to be appointed because the appointments were made soon after the bill was passed.

The membership was very well balanced politically, geographically, and environmentally. The chairman was Charles Luce, chairman of Consolidated Edison of New York, who had been Under Secretary of the Interior. Then there were Russell Train on the environmental side, Ray Linsley, a professor of civil engineering at Stanford, and Frank Diluzio, from industry who had worked in government on the saline water program. Another industry representative was Mike Wright, chairman of Exxon U.S.A., from Texas. Sam Baxter, a civil engineer who was chief engineer of the Philadelphia Municipal

---

Theodore M. Schad

Water Department, and Clyde Ellis, a public power man and former congressman from Arkansas rounded out the group. I think they were well balanced politically, three Democrats and three Republicans, and nobody ever knew where Ray Linsley fit in, but I remember he supported Common Cause. None of the original commission's work ever had anything to do with partisan politics.

### **National Water Commission**

**Q:** How did the committee interpret its charge? What did it set out to do?

**A:** I don't know what they did at the first two meetings of the commission in the fall of 1968. I don't think any record was made because they didn't have a staff. I met with Chuck Luce for the first time when he telephoned me and asked me to come and talk about the commission. He was staying at the old Wardman Park Hotel, now the Park Sheraton, in a very nice suite looking out over the trees. At that time, I hadn't applied for the position of executive director. I can't remember ever applying for a job after I took the civil service exams when I was in college. Somebody always asked me to come for an interview. And then I'd fill out the application blank. It was funny, but I never really did apply for a job, except unsuccessfully during World War II when I was unhappy at the Bureau of Reclamation.

So I went and talked to Chuck Luce without any commitment because I did know a lot about the legislation. I was still at the Library as deputy director of the Legislative Reference Service and we were getting ready to plan for our new offices in the Madison Building which had just been authorized, and I was having fun doing that.

One thing had happened which made me think I would not be interested in the job with the commission. For one thing, there had been a disagreement on the compensation of the staff when the first draft of the bill was sent down to the executive branch for comments and the Civil Service Commission had demanded that it be given control. The Congress didn't like that for a short-term presidential commission but finally compromised by putting in the legislation that the Civil Service Commission shall determine the compensation of the executive director. Then the executive director could fix the pay for the rest of the staff without regard to the civil service rules and regulations.

I was already compensated at the equivalent of grade 18 under Public Law 3 13 in one of the two top scientific jobs at the Library which more or less kept pace with the top scientific positions in NASA, and it was expected that the pay would go higher. So I couldn't see that there'd be any promotion for me at the National Water Commission, and there was an indication that the Civil Service Commission would never agree to another grade 18 position. At that time they were all allocated by the CSC. I guess it was just a coincidence that so many of them were in the Civil Service Commission. If you look at the record you will see that they had more super grades, proportionally, than any other agency. This was before they had the Senior Executive Service.

So I wasn't really interested in leaving the Library. But several people talked to me, including Ken Bousquet who was on the staff of the Senate Appropriations Subcommittee on Water Resources and Gene Wilhelm who had a similar position on the House side. They both encouraged me to apply for the positions, as did Sid McFarland, staff director for the House Interior Committee. I don't know whether Gene Wilhelm or Ken Bousquet had anything to do with it, and I never asked them, or whether a member of the appropriations committee was responsible, but the committee wrote into the first appropriation for the National Water Commission an executive level IV position for the executive director.

Probably they were angry about the Civil Service Commission's having been obstinate in demanding that everything be in accordance with civil service rules and regulations. So they wrote into the appropriations act providing the first \$150,000 to start the work of the National Water Commission that funds shall be available for compensation of the executive director at level IV of the executive schedule.

I guess I must have known about this when I first talked with Mr. Luce. However, I think we talked mostly about what the committee should do, and I must have told him that I didn't have any preconceived ideas as to what should be done. But I'm sure that I told him about my experience with the Senate Select Committee which had decided against doing the things that I thought were most important, such as the economic analysis and the allocation of responsibilities among agencies. At that time I thought those were the major problems.

---

Theodore M. Schad

So anyway, when I met with Mr. Luce we eventually discussed the subject of salary of the executive director. There was another Quadrennial Commission report coming up, and he suggested that it seemed obvious that they were going to make some recommendations for increasing—

Q: What sort of commission—I'm sorry, what was this?

A: The Quadrennial Commission is what they called the Commission on Executive Pay, which has just recently made some new recommendations—that's what they used to call it. Now, I don't know whether they still call it that or not. I think somebody did call it that in the newspaper article. It has a long name. Well, anyway, that was in the mill, and he felt sure that the level IV would be a promotion for me. The executive level V was the same as grade 18, and so it seemed obvious that there would be a promotion.

As soon as I met with Mr. Luce, I found that we had an almost immediate rapport. But I have to mention one thing; someone had told me that he had had polio. He walked with a limp, the same as I do. All my life I'd wanted to find somebody whose left foot was smaller than their right foot, especially size 11 or 11½, in the hopes that we could buy two pairs of shoes and split them because my right foot is smaller than my left foot. But unfortunately Chuck's polio was in the right leg also. He was attacked by the polio just about a year before I was when we were both babies.

I guess I'm just being facetious bringing that up. But we did have a good rapport. He had come out of the Interior Department having been in the Bonneville Power Administration when I was in the Pacific Northwest. We knew a lot of the same people and he knew and loved the Northwest just as I did. We both knew and liked Scoop Jackson. He had been my congressman when I lived in Seattle, and when I came back to Washington I still voted in Seattle until the District of Columbia residents were able to vote. Of course, I had worked with him when he was a member of the Senate Select Committee.

One of the interesting things that Scoop did that I was involved in was he brought young lawyers back to work with the Interior Committee. He brought Tom Foley back, and he brought Bill Van Ness back, and one of the first things he usually did was send them over to talk to me at the Library about water resources, so I got to know and work with Tom Foley, for example.

**Water Resources People and Issues**

---

Q: While he was still a staff member?

A: Yes, he was a staff member on the Senate Interior Committee for several years. I don't know whether Scoop had any idea that Tom was going to go on and be the majority leader or anything like that, and I certainly didn't. Tom was just a very nice guy. And Bill Van Ness was very nice and stayed on to be staff director of the committee.

And then on the other side, Tom Kuchel had brought Steve Horn back to work for him, and I did the same thing; spent some time briefing him on water resources because I could give them a briefing about the committee from a different viewpoint and the senators were a little too busy sometimes to break in a new staff member.

So I had a good rapport with Scoop Jackson, but I never talked to him about the commission more than once or twice during the course of the five-year study.

When Mr. Luce offered me the job after another unrecorded meeting of the commission I agreed to take it and started work on the next to the last day of 1968, bringing with me a secretary from the Library of Congress. I was working in a building at 1016 Sixteenth Street across from what I still call the Statler Hotel, now the Capital Hilton Hotel. The government had a small building there, an eight-story building with just a few offices on each floor that they used for temporary commissions. I had the office on the second floor at the front of the building and planned to meet there with Mr. Luce on the first Saturday after I started work.

I had to use a key to get in the building on Saturday and was up there working when I kept hearing something that sounded like hail on the window, a tapping noise. I looked out the window, and there was Chuck Luce down on the sidewalk throwing pebbles up against the window because he couldn't get in. And I thought, "My god, if the police come along and found the chairman of Consolidated Edison Corporation down there throwing pebbles up there, they'd probably want to lock him up."

I went down and let him in and we started to talk about what we should do. As I think back on it we certainly didn't "hit the deck running." We had talked a little bit about what should be done in the interview, when he had asked me

---

Theodore M. Schad

what I thought should be done, and I had gone through the whole rigmarole of cost sharing and allocation of responsibilities among agencies, as well as a lot of the other things we've been talking about today, which were things I had been working on for years.

All we could agree on at that time was that we were going to have to have a program of studies looking at specific areas in some depth to provide a basis for making recommendations. Which, of course, was so obvious that we didn't need to have a meeting to decide it, but I was there with one secretary and no staff at that time and had barely begun to think about who I was going to get to help me, and I didn't even have any stationery on which to write a letter. We had to type on the address.

On Monday Bob Blakeley, who was the administrative man for the Corps of Engineers, called me and offered to help with administrative details. I don't know whether he was operating on his own or whether somebody at the Corps had told him to call me. I think he was hoping to get the job as the administrative director for the commission. I don't know what motivated him, but he came over and helped me. He helped me get stationery, he helped me get anything that I needed in the way of office furniture and equipment. He told me that the Corps was glad to help, and that they had helped a lot of commissions. He mentioned the names of some of them.

Of course, for presidential commissions, the General Services Administration has an office set up to handle administrative details: payroll, personnel, contracts, etcetera. That's the rule. But Bob Blakeley could do things so much faster than GSA. My recollection is that he got my stationery printed in one day, and a dozen little things that you have to do to get an agency started. To be honest, I guess I was terrified. Here I was, with one little secretary who had been one of my assistant secretaries at the Library and when she knew I was taking a new job, she asked to come with me. She was only 18 years old. When she bought a car, her father had to sign for it because she was too young. But she was good! She could take dictation and was a very hard worker. But she didn't have any background about the federal government: a high school graduate, no college.

One of the first people I had contacted to see if he would be willing to work with the commission was Howard Cook. I was told that Howard Cook had been interviewed to be the executive director, along with Joe Tofani and Gene

Water Resources People and Issues

---

Weber. They were all three very knowledgeable, but I didn't know whether they would like to work under me. I have a feeling that it really hurt Howard that he hadn't been selected, but he never complained about it.

When I called Howard, he immediately said that he'd be interested, and I offered him the position of deputy director because I knew that he could be depended on and I would be able to get him a promotion.

The Corps had great difficulty getting super grade positions, GS-16, -17, and -18 at that time because of the overlying military staff. When you looked at the organization chart, the responsibilities were placed in the generals and colonels. At that time they even had several colonels as assistants to the chief of Civil Works, so they had a hard time justifying getting a super-grade position for a civilian in the Corps. The only way that Joe Tofani got a GS-17 out of it was that Ken Bousquet got the Appropriations Committee to write the position in the law in the appropriations act. I understand that logjam has been broken now, but not without great difficulty.

I was delighted to provide a chance for Howard to break out of that, and so I think that's one reason he took it, but also he was highly motivated. So he was the first person with whom I really made a commitment. He couldn't get away from the Corps right away, but he came over and worked with me Saturdays and nights and whenever he could find time and helped me to lay out a list of potential studies to be included in a program of studies for approval by the commission.

Neither Howard nor I wanted to narrow the focus of the study down into our particular areas of interest. Under the terms of the National Water Commission Act, the commission members could not be affiliated with the federal government in any other way. Chuck Luce wanted me to follow the same principle in hiring the staff. He didn't want me to detail people from the agencies who might retain ties to their agency. He reminded me that the Water Resources Council had been staffed that way and that it didn't work. Chuck did not have a very high opinion of the Water Resources Council, based on his exposure to it as Under Secretary of the Interior.

Although he had delegated all of the powers of the chairman to me except the power to hold hearings, I felt that I had to consult him with respect to hiring my principal deputy. I pointed out that I had worked with Howard for many

---

Theodore M. Schad

years, that he had unusual competence, and that he had worked not just for the Corps but for the Department of Agriculture. So he agreed that I could hire Howard Cook.

So we went to the first formal meeting of the commission, just Howard and I, with a list of over a hundred possible study areas. We made up the list based on our knowledge of all the different questions that were still left after all the other studies had been done. When you get right down to it, most of the previous water studies had not really resolved any questions; they had more usually posed more questions or different questions.

Q: Let me inject a question right here. When you developed these potential study areas, did you go to staff members in the House and Senate and ask for some input from either the political, that is the elected officials, on the Hill or the staff members about what was their intention?

A: Not at that time. For one thing it was abundantly clear from the legislative history of the act what we were supposed to do. I wanted to have a meeting with the commission first. I hardly even know the other members of the commission, except for Ray Linsley and Frank Diluzio. I had met Russ Train once or twice, and I knew Sam Baxter from having served on a committee with him when he was president of the American Society of Engineers. But I didn't know Mike Wright, and I didn't really know Clyde Ellis although I had heard him speak.

So, I wanted to get their views before I got anybody else's because I wanted it to be their show. The first meeting was held at the Metropolitan Club over a \$15 lunch which shocked me because the food wasn't very good. We had given the commissioners the list of studies in advance, and we asked for guidance as to which areas they thought should be the subject of study.

My whole approach backfired when the commissioners immediately turned the question back and told us that we were the experts and they expected us to tell them what they should study. But at that first meeting, Chuck said that the one essential thing was that we have at least one study underway and a plan of studies approved by the time he went up to testify before the Appropriations Committee for the next year's appropriations, which was set for some time in March. This was in mid-January, so we had only two months to come up with

a plan of study. And it was pretty clear that the commissioners had no preconceived ideas about what this commission should do.

One of the things that they did understand was that we would have to study interbasin transfers because of the background of the commission. Actually, we were the only federal agency that could study interbasin transfers because of Scoop Jackson's provision in other legislation to the effect that no agency shall study interbasin transfer without specific approval of Congress, and we had that specific approval in the National Water Commission Act.

Although at first we didn't get the specific views of the commissioners as to what we should study, there was no lack of suggestions sent in from others. Professor Len Dworsky at Cornell sent us a publication resulting from a student project that he called, "An agenda for the National Water Commission." I was deluged with all kinds of ideas from other sources. People from TRW met with us, wanted me to contract the whole study out to them, and they would plan it and execute it and produce a report. All we had to do was give them the money. I was flabbergasted. I couldn't conceive of such a thing. But apparently they had done that for some other commissions. From the current vantage point, I guess it would be called privatization.

It was obvious to me that none of these people had anybody that knew any more about water policy than Howard Cook and I did, so we soon stopped paying any attention to them and devoted our time to recruiting a staff. And for the first study we took advantage of some water demand studies that were already underway at Resources for the Future and began negotiating a sole-source contract with them to provide us with a report on future demands for water in three sectors of the economy. This was one of the very obvious things that we knew would be needed. It didn't take much time to draw up the contract, and it didn't cost very much because Chuck Howe and Bob Young, who were going to do the work, were already working at Resources for the Future. So this became the first study, and when Chuck testified at our appropriation hearings, it was already under contract.

In order to handle our contracts, I very soon hired an administrative man. The job didn't pay enough to attract someone like Bob Blakeley, but I was able to hire a man with experience with defense contractors as the administrator. His name was Bob Baker, and he went right into action because he knew contracting from both sides, having been a colonel in the Air Force or Army

Theodore M. Schad

---

Air Force during World War II and had worked in the Pentagon Office of the Secretary of the Army. He was able to hit the deck running and knew all the personnel rules when we started to recruit the rest of the staff. We had to get that first contract going before we even had the rest of the staff. We didn't have very much space in the office at 1016 Sixteenth Street, so they made space available for us in the New Executive Office Building on Seventeenth Street. This was very nice office space which made me feel that the commission was going to be right in the middle of government policymaking.

We could have the commission meetings right there in the office and walk across the street to the Metropolitan Club for lunch. But in the meantime, Russell Train had resigned from the commission to accept an appointment as Under Secretary of the Interior, and Howell Appling from Portland was appointed. This started to upset the geographical balance of the commission because we lost an Easterner and picked up another Northwesterner. Howell was a businessman, and he very quickly developed an understanding of what we were trying to do.

Q: Who appointed Appling?

A: He was appointed by Nixon. He had been a campaign worker for Nixon in Oregon. At one time he had been the lieutenant governor of Oregon but he had given up politics because he felt that it took too much time away from his family. I had not been consulted; we read about his appointment in the newspaper.

After a couple of months in the New Executive Office Building we were told unceremoniously that we would have to give up that office space.

Howell Appling knew H.R. Haldeman and John Ehrlichman, the two guys that ran the Nixon White House, and wanted to put up a fight to keep our office there, but Chuck felt there was no use getting involved with that kind of a fight. I think Chuck realized that we had no political clout, since all of the other commissioners had been appointed by Lyndon Johnson and had submitted pro forma resignations to Nixon on January 20.

In the meantime, we were going ahead with the evolution of the study program. I had already contacted Abel Wolman, Gilbert White, and Ed Ackerman, and they had agreed to serve as consultants. All three were very

well known to Howard Cook, and we tried to get their ideas as to how we should, narrow the focus of the study. I think we had just one meeting with all three of them, and they weren't able to help very much.

I should have mentioned earlier that on my first day of work for the commission on the last day of December in 1968, I had worked up the justification for a budget of \$700,000 for the next fiscal year. I was able to get it printed in the budget which was going to press that very day, so we didn't have to go up with a supplemental which might have taken ages to get.

So we had a budget request without having had a Budget Bureau hearing, which is rather unusual. We did have a hearing on the Hill at which everything was sweetness and light. We had the House and the Senate hearings on the same day, to accommodate Chuck who was very well respected by everybody on the Hill, and I guess I was also.

There's not going to be enough time for me to tell much of the detail about the study program that was being formulated during the early days of the commission. It was a rather full program because the commission refused to narrow the study down. Howard and I felt that we could not do a good job on over a hundred potential studies that we had on our list. These were all in areas of possible improvement in water policy, and the commission took the position that it couldn't decide to throw anything out without having the background that the study was intended to provide. Some of them were in narrow areas and some of them were broad. They were grouped into 15 or 20 special study areas which I thought would provide a focus for a rather succinct final report.

I was very fortunate in being able to assemble a very competent and hard working staff. The division chiefs were Vic Koelzer, from the Harza Engineering Company, where he had worked on multiple purpose projects all over the world but primarily in the United States; Lyle Craine, on a sabbatical from the University of Michigan, who had been in the Interior Department in the Truman administration as a member of the secretary's policy planning staff; and Phil Glick, who came to us from being chief counsel for the Water Resources Council. He used to joke about being called "counsel for the council." Each division chief then recruited his own staff. Phil was the last of the division chiefs to come on board, and his immediate reaction was he wanted to bring his whole staff from the Water Resources Council over. I had to stop him from doing that, and he eventually recruited a very fine group of Western

Theodore M. Schad

---

water lawyers. Aside from this instance, I generally gave each division chief a free hand in staffing his unit, within the limits of the budget.

Q: Was Gary Hart one of your lawyers?

A: No, but he made a study for us. The star of the legal staff was Charlie Myers, on detail from Stanford for about a year. Charlie Myers was a very dynamic individual, very, very conservative, an arch-Republican. He was originally from Texas, where he had gone to law school, and was a professor of law at Stanford. He was topnotch and dominated the legal staff.

Q: Was he a friend of Linsley's?

A: Not really. Linsley was at Stanford and knew Charlie, but they were not especially friendly. I think Phil Glick recruited Charlie. Phil's primary role was in recruiting a topnotch staff. With all due respect, Phil Glick was more of an executive lawyer. He knew how to find people and how to interpret other people's work, but he was detached from the report production line. Charlie more or less took it over and helped with the completion of the final report. I think Phil was on leave for a long time after an operation.

Q: What did Gary Hart do?

A: Gary Hart was engaged to do a study on the river basin commissions which was eventually published. We had a hard time getting him to finish it because he went to work on George McGovern's campaign.

Q: You were talking about how the staff was hired, but what interests me is how the staff, including the in-house staff as well as the contractors, developed the voluminous number of studies in really a relatively short period of time. You must have had quite an administrative problem of handling all that sort of stuff.

A: Yes, I did. At one time I remember telling the staff that, "All I can do is facilitate the work and get the money and whatever else you need to do it, and I don't really have the time to put a lot of intellectual capital into the theory and the policy."

Howard and I worked very long hours, and we had some other hard working staff people. Vic Koelzer told me that he woke up at four o'clock in the

**Water Resources People and Issues**

---

morning because he couldn't sleep, so he started working and worked all day. When I mentioned the division chiefs, I forgot to mention that Bob Baker, as chief of the Administrative Division, did a yeoman's job in his field.

Also, we did a lot of the studies by setting up committees where our staff did the staff work. Harvey Banks chaired a committee on planning and Dwight Metzler chaired a committee on water pollution control. We knew the people in the country that knew the most about the various subject areas and we got them to help.

We negotiated contracts with universities for the use of people who were academics but had had experience with government policies. David Allee at Cornell was in charge of one study. He had been back in the Office of the Secretary of the Army for a year on sabbatical, so he was well versed on authorization and appropriations processes for water resources. I don't remember all the others, and there just isn't time to go through the whole list of studies. We actually had about 80 different studies of which 64 were completed and published. Then we had two major compilations that were published by the U.S. Government Printing Office. One was on state water law, compiled by Dick Dewsnup with the assistance of a couple other lawyers, and the other one on the federal water policies, which was done by in-house staff.

I had the feeling that I was keeping a lot of balls in the air. My efficiency was helped tremendously by the fact that I had two secretaries. In addition to the young woman who had come from the Library, Lena Crist, who didn't have much experience but worked very hard, I had Flo Broussard who had been Ed Wenk's secretary at the Library and had worked with him in the Executive Office of the President. Flo was my administrative assistant-the only fault she had was that she typed so fast that the IBM Selectric typewriters with the letters on the balls couldn't keep up with her. I shouldn't call that a fault!

IBM didn't believe it, and they sent someone to the office to check her out and found that it was true. The machine just could not keep up with a really fast typist. Not only was she fast, but she was accurate, almost unbelievably accurate. When I wanted to get something done, I could dictate it and it would come out perfectly. She corrected my tendency to be overly verbose. I have the feeling we could use her to good advantage in transcribing this interview.

---

Theodore M. Schad

We had a commission meeting just about every month after the studies were coming in. Usually the meetings would start in the evening with dinner and a discussion of some kind after dinner. Then we'd have morning and afternoon sessions the next two days concluding about three o'clock in the afternoon of the third day. Some of the earlier meetings were just one day. I tried all different ways of doing the minutes of the meetings. One time we even had the tapes transcribed, but that took too long, and they had to be edited. So finally I just made notes as we went along and then I would come back to the office and dictate the minutes.

I have had a lot of experience working with commissions and committees, and sometimes they don't really take some action that they should take or they forget to do something that they intended to do. This commission was no different. My philosophy has always been (I hope it doesn't sound like David Stockman) to write the minutes up as to what I thought the sense of the meeting was and what the committee and commission should have done rather than what the actual transcript showed. You sometimes have to do it that way; otherwise, you'd never have a good record of the actions taken.

Preparing the minutes took a lot of my time and I could never have done it if it hadn't been for Flo Broussard. She was very competent. She didn't work overtime, she didn't have to. She could do all the work in eight hours. Mr. Luce thought she was overpaid compared to his secretaries at Con Ed, but she earned every bit of her pay. She went on after she left me to be secretary for Russ Peterson when he was chairman of the Council of Environmental Quality, and then later on she was secretary to the science advisor in the Executive Office of the President. She was topnotch, and that was one of the reasons I could get so much work done.

We didn't have many meetings with consultants, but we did have one big meeting at Belmont to which we invited members of the committee staffs from House and Senate committees and from the minority and majority sides. This was probably in the spring of 1969 when we were first getting started. We also held field hearings, about five or seven hearings at various places around the country. I can remember going to Portland, Denver, Phoenix, and New Orleans. Every state was invited to make its views known at these hearings, and we amassed a tremendous volume of material. This is always an essential part of a commission study. But you get an awful lot of material, most of it about things you already know, that you can't use or don't need to use.

**Water Resources People and Issues**

---

Sometimes you get a few good ideas, and it also helped us to determine that we were covering the things in which the states were interested.

Throughout the study I had to spend a lot of my time meeting with people who wanted to make an input to the commission's study. Some of them believed that the major purpose of the study was to beat the drums for the NAWAPA project, the National Water and Power Alliance, that was proposed, I think, by the Ralph Parsons Engineering Company. I also felt like I was flogging the administrative staff and the section heads to get them to finish individual reports so that we could get them published and get them out for comments.

Along with the work of the staff, we were having a meeting of the commission almost every month at which we would keep them up with what the staff was doing. At first we were evolving the study program and having postmortems on the hearings. When the first studies started to come in during the second year of the commission's work, we sent copies to the commissioners and discussed them at the meetings. The commission did quite a bit of reading of those studies and gave us all kinds of comments. As we moved on farther down the road and were at the point of making decisions as to what would go into the final report, we would put issues before the commission in the form of a staff paper. One of the more significant staff papers was the paper on alternative futures. It seems so obvious now, but at that time it seemed like a new idea, that demand for water is dependent on the policy decisions made by society, not on the growth of the economy.

Everybody knows that now, but when work was done for the Senate Select, there was a consensus that water demand was going to be doubling in 20 years and tripling in 40 years along with the economy.

The commissioners worked very hard to prepare for those meetings. Mr. Luce demanded detailed agenda with estimated times for consideration of each subject based on my estimate of its importance. We prepared an agenda book for each meeting. Some of those notebooks were two inches or two-and-a-half inches thick. I was embarrassed sometimes because Chuck Luce had always read every word of the agenda book and the reports it contained, and he would ask me questions about things that were in the book that I either hadn't read or didn't remember having read. He had a much better retention of detail than I.

---

Theodore M. Schad

Most of the other members of the commission also were topnotch people. Mike Wright was an intellectual power house, or maybe he had a very good staff to brief him. Strangely enough, even though he had been a staunch Republican all of his life, the White House staff, without me knowing anything about it or anybody else on the commission knowing anything about it, got the President to replace him on the commission.

When Nixon came into office, each of the commissioners had written a short undated letter saying, "In accordance with established procedure, I hereby submit my resignation to be effective at your pleasure." This is standard for all presidential appointees, even in the middle of an administration when the new administration starts. I understand that some Presidents demand that appointees give them that letter when they are appointed.

So, those undated letters were all on file, and the first thing I knew about it was when I got a call from the White House telling me that there were some important papers for me to pick up. When I got them, I found there was an appointment for Josiah Wheat of Texas, who had been chairman of Democrats for Nixon in Texas, and another for Roger Ernst of Arizona, who had been an Assistant Secretary of the Interior. Along with them were letters accepting Mike Wright's resignation and Frank Diluzio's resignation.

When I called up Mike Wright, I think he thought that I was the one that wanted to get rid of him. This was the farthest thing from my mind because he had been a tower of strength in supporting me when other commissioners came up with unrealistic ideas. Frank Diluzio just shrugged when I called to tell him, saying that he was surprised that it took as long as it did.

This happened in November 1969. We were well under way, and we had two new commissioners, and they didn't know anything about the study program.

Roger Ernst from Arizona was well versed in government procedures, having been an Assistant Secretary of the Interior, but Josiah Wheat's primary connection to federal water policy had been through the Water Resources Congress and the National Reclamation Association in Texas. From their backgrounds I thought they might want to change the focus of the commission to make it a strong supporter of Western water development.

**Water Resources People and Issues**

---

By statute, the commissioners were allowed to be paid for the days that they worked. It was decided early on that no commissioner would charge for more than four days a month, two of which would be for the meetings and two days at home. So these positions were no sinecures. Further, we didn't provide for a commissioner to have a paid staff person in his home office,

**Q:** That would exclude travel days, I assume.

**A:** Yes. Because of that limit, they didn't charge us for travel time. Most of the commissioners were going to be traveling anyway. They were all very busy people, so \$100 a day was more or less pocket money for them. We did authorize them to travel first class, and they all traveled first class except Chuck Luce. He always traveled coach. As a director of United Airlines, he did that because he wanted to see how they were treating people who rode in the back of the plane. I was also authorized to travel first class, but I always traveled coach because I hate to waste money. I kept a very tight rein on the expenditures of the staff of the commission.

**Q:** What surprises me is that considering the number of people you hired and the number of people you contracted with, in the end you could come up with X number of recommendations that must have reflected at least a majority view if not the unanimous view of the commission. And these recommendations were not just **milksop**; they were substantive and they were controversial. Can you explain a little bit more about how that evolved?

**A:** We worked pretty hard to get unanimous decisions. Of course, the staff didn't have a vote. And we had some studies that were never finished because they weren't any good. For one study we contracted with the University of Chicago for work that Jack Schaefer was going to do. Jack Schaefer then left the university, and they turned the study over to someone else. The study was on the Muskegon project in Michigan. It was such a lousy report and we had already made a partial payment which couldn't be recovered, so I refused to pay any more and ordered the contract terminated. We were threatened with legal action by the University of Chicago, but in a phone call from the vice president of the university, I turned the threat right around, saying, "If you pursue this, I will publish that report and put the name of the University of Chicago on it." And I told him to look at the report and let me know if he wanted me to do that. Never heard another word from him.

Theodore M. Schad

---

That is an example of what I meant when I said I was tight. Another thing is that we refused to pay overhead on contracts with the universities. They passed a resolution condemning the practice. I was determined not to waste any money. One time we had to send Helen Ingram up to Cornell to help David Allee to finish his report. David always has a lot of balls in the air. He's a very good man and the contract was being monitored by Helen so she had to go up and more or less sit on his doorstep-not really his doorstep, but hound him at his office to keep him working to get that report finished in time for the commission to consider it. Dave didn't really understand that when we needed a report for a meeting of the commission in May, they wanted to get that report in advance and read it. We worked hard on a lot of those reports to get them finished on time. I mentioned earlier that we had trouble getting a report out of Gary Hart because he was working as McGovern's campaign manager. We had to get somebody after him to finish his report, but we got it and he came to our meeting in Philadelphia to defend it before the commission.

Q: Excuse me, but did it sit well with these staunch Republicans you were talking about that Gary Hart had been given a contract? It would seem likely to me that some of those people would say, "Well, gee, this guy's a little bit too far to the left to really be-"

A: I remember that some of them joshed Gary at the Philadelphia meeting about working for a losing cause, but there was never any political comment made at any of the meetings or at any other time. And one thing that amazed me was that there was never any political pressure on me to hire anybody. One of the people that I tried to hire at the very beginning of the project was Ernie Engleburt, out at the University of Southern California. He'd written a lot on water resources policy, and I've known him for many years and respected his work. When I tried to get him to come to work in the position in which we eventually hired Lyle Craine, he said something like, "I'm not going to come back there. You're going to find that you're going to have to hire every political hack that the Hill sends down there, and you're not going to be able to get anything done."

The amazing thing was that, to my recollection, I only had three calls from the Hill about hiring a staff man.

One of those calls was about a man who had applied for a job with us, and I had agreed to hire him but we had not yet told him. He went up on the Hill to

one of the senators that he thought had some influence to ask for support. So I got a call from a staff man urging me to hire him. Actually, I think someone on my staff had already made an offer and he'd accepted it when I got this call. If I had gotten the call before we had made the offer, I'm not sure I would have offered him the job because that's the way we operated at the Library of Congress. We would never hire somebody with a political recommendation. I suppose we might have if the recommendation came from the chairman of the Library Committee. Then we might have hired him and put him in a place like kicking him upstairs before he started.

Then I also got a call from Scoop Jackson about a young man who wanted a summer job. We interviewed him and he looked good, so we hired him as a research assistant. I guess we trained him well, because he's turned out to be a leader in the water resources field. I'm glad we were able to help him along in his career. It was a summer job for him.

Q: What was his name?

A: I can't remember for sure, but his first name was David. Yes, David Friedman.

Q: You said you got three calls?

A: Yes. It's funny that I remember all this, but I never could understand why officials of the executive branch of the government allow themselves to be pushed around by members of Congress.

Anyway, this other call was from a staff member for a senator that I knew quite well. The caller said that the senator was interested in so-and-so and wanted me to hire him. This was a staff person for whom I didn't have much respect, so I said, "There are no vacancies, but if the senator is really interested, have him call me and I'll talk to him about it." I never got a call back. So it was pretty obvious it was all being handled at the staff level.

I was very careful in hiring the staff. There were probably a couple of mistakes made, but that was inevitable considering the time pressure we were under. Actually, I was primarily responsible only for hiring the top staff people. I hired Howard Cook as my deputy and I hired Ralph Fuhrman as an assistant director, and, of course, Bob Baker to handle the administrative work. After I hired the three division chiefs, I let them pick up their own staffs. But I

Theodore M. Schad

---

would always interview the candidates, and if I didn't think they were making the right decision, I would give them my comments. In a couple of cases they went ahead and hired people that I didn't think were competent anyway, and in at least one case it was a terrible mistake, which was recognized by everyone later. But I think the record shows that we had an excellent staff.

Vic Koelzer brought a lot to the commission. Vic is the one that set up these committees chaired by Harvey Banks and Doug Metzler and people like that, bringing a hand-picked group of top experts together to develop reports. His committees worked very much like the committees of the National Academy of Sciences, and they really produced for us. That was how we got some of the reports done. Then there were internally prepared reports. The report on navigation that Truman Price made for me was a real classic. He made a special copy for me with pictures of nude women sunning on the decks of yachts and things like that that made you laugh. The idea was to show the multipurpose use of waterways. I got a kick out of it, but we didn't leave those pictures in the reproduced copies made for the commission and eventually published.

Truman had a great sense of humor and I think everybody did. He had come to us from Interior. I wasn't able to honor Mr. Luce's idea of not getting people from federal agencies. We had to get people who knew the programs because we didn't have the time to train them. One reason that Vic Koelzer and Lyle Craine worked so well was because they had had federal service in an earlier stage of their careers.

The rule I followed was that we wouldn't hire anybody who was planning to go back to his job in a federal agency. There was a young officer from the Corps of Engineers, for whom I had great respect; he was probably a captain at that time. He came to me and said that if I wanted, he could be detailed over to work for the commission. I know he could have helped, but I decided not to take him up on his offer because he would have obviously gone back to the Corps. We didn't take anybody on detail from federal agencies.

When Truman Price came, he severed his ties at Interior. Later on he went over to work for EPA [Environmental Protection Agency], but that was different. EPA was not even in existence when he came to us. Howard Cook was planning to retire, which he did near the end of the commission's life.

**Water Resources People and issues**

---

It's hard to say how we got so much done. One of our failings was that the commission didn't narrow things down. They wouldn't let go of anything that we started. Incidentally, the report was unanimous except that there was one dissent on an item where the commission recommended that water rights ought to be only for a set time; in other words, for enough time to amortize the investment, rather than in perpetuity. The commission's recommendation gives the option of reallocating water without paying somebody to give up their water rights. Roger Ernst, as a dedicated Westerner, dissented from that. That is the only dissent in this whole report. Such unanimity was not achieved without an awful lot of work, and believe me, these members worked.

The commission really got started in about January 1969. I worked the last few days of December in 1968. We had 54 meetings, including the hearings, some of which were two days. Almost all of the meetings in Washington were two or two-and-a-half days. We did have a few one-day meetings. Counting all 54 meetings and hearings, the attendance record was something like 89 percent.

Q: Amazing.

A: Just amazing. Due largely, I'd say, to Luce's leadership ability. He did so much work himself that he really inspired everyone else. I understand that he's been like that on every job he's ever had. So I would attribute the success of the commission to his leadership and the hard work of the staff-especially during the preparation of the final report, when the staff was very diminished because we told everybody when they came to work that it was for a set time. About a year and a half before the end of the commission, I set up a schedule of when people were going to terminate their employment and what they had to finish before they left.

With only one major exception that I can remember, they did it. They worked right up to the last day if they had to and finished their reports, I have to particularly give credit to Vic Koelzer. Because Vic was one of our highest-paid people, we had to let him go before he wanted to go. He had wanted to be in on the final writing of the report. He was an engineer who knew how to get things done, and the reports for which he was responsible were in such good condition that we didn't really need him any more. So he left kind of reluctantly, being one of the first staff members we had to let go.

---

Theodore M. Schad

Some of the others had come in and out. Henry Vaux was one of the first ones hired and had gone to the University of California to take an academic position and complete work on his Ph.D. The names don't all come back to me, but others had come in and out. Lyle Craine had gone back to Michigan and had been replaced by Dean Mann, and then later Dean Mann had to go back to his academic job and Gary Taylor carried on there. We had the most trouble keeping staff in the Social and Behavioral Sciences Division. But we had a really good staff and they worked hard, but at the end I had to be the one to put the report into final form.

Howard had a major difference with the commission on the cost-sharing policy on inland waterways. Howard felt that the federal government should pay at least half the cost. The commission's recommendations were blunt. It believed that there is no reason that the federal government should be subsidizing transportation of goods and passengers who should be able to pay their own way. So the commission's recommendation was that only if the waterway was needed for national security should federal money be expended on improvement of inland waterways. I think it kind of broke Howard's heart when he lost an argument with the commission on that subject. So Howard Cook decided to retire; he was 68 years old, and his wife had wanted him to retire much earlier because she had already retired from Woodward & Lothrop. Howard had stayed on because he wanted to help me. He was very loyal to me.

It was near the end of the commission's life, the staff was dwindling, and I had the job of finishing up the report. We had hired an editor from Bonneville Power Administration named Mike Katz, who came in and worked for the commission for about a year. He was a good editor, and I think an awful lot of the credit for the good writing in that report goes to Mike Katz.

When it finally got down to the last few months, I took a few short cuts that I was able to do because I had contacts with the Joint Committee on Printing. The Government Printing Office is supposed to be responsible for printing all government reports. I couldn't see how we were going to get the report done before the beginning of summer if we couldn't bypass the Government Printing Office's red tape.

I had scheduled completion of the report for June, even though we had until September 26 to finish, for several reasons. One reason was that I wasn't sure that we had enough money to run through the summer. We had enough money

for my salary and the secretaries' salary, but not enough to do very much else. The other reason was that I was getting tired and wanted to have some relaxation in the summer. A third reason, which I hate to mention because it sounds crass, is that there was going to be a cost-of-living adjustment in the federal annuities on July 1, and if I were to get on the retirement rolls before then, I would get an increase in my annuity. This was at a time when inflation was increasing and I had two children of college age.

In order to meet my schedule, I had to short cut the Government Printing Office. We had all of the report on computers, so it was going to be possible to print it direct from the tapes. This was in the early stages of computerized printing, but I had investigated and found a commercial service that could use our tapes and go right into typeface. So I went ahead and put the review drafts of the report into the single-spaced form they would have when finally printed. This resulted in reviewers making fewer changes than if you have a double-spaced draft on which it is easy to interlineate and write in changes. So I worked from galley proofs from about the middle of April on.

At that time, you were not supposed to do that. You were supposed to give a copy to the Government Printing Office, and they would prepare the galley proofs. But I had talked to people that I knew on the staff of the Joint Committee on Printing and in the Government Printing Office and made sure that what I did was not going to be wasted. So we prepared the final commission report on galley proofs. Every member of the commission read every page of that galley through several iterations.

It was a big report, over 500 pages, and there are actually 238 recommendations spread through it. I was the only one left, except for Bob Baker and a couple of secretaries, working to get the transcripts of the hearings in shape and organizing the files containing 7,000 or 8,000 letters of comment about the draft report. We had put out a draft in October 1972, and this was in the spring of '73 that I was finishing the report.

I remember getting those galleys back from the commissioners and sitting at the big conference room table with seven galleys spread out before me, with one clean set that I was marking on. I would go over all of the commissioners' changes and incorporate them in the clean copy. There were places where I had to resolve differences in language changes proposed by different commissioners, and then send out another set of galleys when it was on a

---

Theodore M. Schad

controversial subject. I guess I realized that I was the only one could have done that, and so I did it, but I ended up working 80 hours a week or more. I was working all day Saturday and all day Sunday that whole spring to get that report done. With everybody's cooperation we finally got agreement on everything. Then I had the commercial service cut up the galleys and put the report into page proofs mounted onboards, mostly double pages, with spaces for pictures.

I had asked members of the staff to find pictures as we went along, so I had a whole raft of pictures from which to choose. We had pictures from many sources including the Corps of Engineers and the Soil Conservation Service and the Bureau of Reclamation. Every agency was eager to give me pictures because they knew they would get credit. We had been collecting pictures as we went along, but finally, in the end, I had to pick out the pictures and write captions, which Flo Broussard would type up and get to the printers.

Flo stayed with me until the end and I would have never been able to do so much without her. She was much more efficient than I. My other secretary had already left, and we had a very small staff at the end. I finally got the approvals of all the commissioners and got them to sign the front letter to the President and the Congress and had it set up for publication in the front of the report.

When I took the page proofs to the Government Printing Office all mounted on boards, they were somewhat upset, but I told them that because our computer was all set up to move right into typeface, we had done it that way to save money and time because it was the only way we could have it ready for a meeting with the President.

In the meantime, we had set the date for presenting the report to the President. It was to be June 14, 1973. I took the boards over to the Government Printing Office about May 25 and told them that we had a meeting set with the President for June 14 and that we had to have copies by then. It was the day before the three-day holiday weekend. I thought sure that they would start to work on it on Saturday, but apparently didn't even look at it until Tuesday. They put it out for bids on Wednesday. They had several bids and got a company out on New York Avenue to print it. Nobody would ever believe that the Government Printing Office could work that fast, but they did. I can't remember the name of the process—

Q: Offset?

A: No, I'm talking about the pictures. They're all in two colors.

Q: Duo-tint?

A: Yes, duo-tint. There's a blue and a black press run on all of those pictures. Gives a nice effect, and it's much cheaper than color printing. Anyway, it was all ready for them to print when we gave it to the Government Printing Office. Flo and I went over to the printers on Saturday and checked all of the captions for the pictures, which is one of those things that has to be done because they're set separately. By the next Tuesday we had a printed copy of all of the pages, not bound, for us to check before they proceeded with the binding. The next day we had a few paper-bound copies of the report, and on Thursday we got a few tons of reports almost a week before we needed them. But in the meantime, the White House had canceled the meeting. Just a joke-I told the commissioners that Nixon was so engaged in Watergate he didn't want to have anything to do with anything on his calendar that had the word water in it. (Laughter)

So we never had a meeting with Nixon to present the report. But we did go ahead and schedule hearings on the Hill toward the end of June-By that time the summary report had been written. This was the report which I had been hoping would be the main report, with the big report as the appendix, but the commissioners felt it would detract from the words they had struggled with so long in the main report. The summary broke the study down into the seven themes summarizing the studies, making it more readable in a smaller book which you can hold in your hand instead of the five pounds of the main report.

At the hearing the report was not too well received. Scoop Jackson was flabbergasted, as was Frank Church, that the commission didn't recommend against interbasin transfers. They were shocked because they were sure, now that the commission had two more members from the Pacific Northwest, that it would oppose interbasin transfers. I should have mentioned the second change in the membership of the commission in which Clyde Ellis and Sam Baxter were dumped. Sam Baxter was a lifelong Republican from Philadelphia. He was replaced by Jim Murphy, who had been a Republican National Committee member from Montana. Clyde Ellis was replaced by Jim Ellis, who was the mastermind in Seattle Metro. This gave us two more Northwesterners

and so the balance that Lyndon Johnson has sought in his appointments was completely destroyed. This was another change cooked up in the White House without any consultation with anyone on the commission. I should say that none of the new commissioners suggested any change in the conduct of the study.



National Water Commission, October 1972. James Murphy, Howell Appling, Roger Ernst, Theodore Schad, Charles F. Luce, James Ellis, Ray Linsley, and Josiah Wheat.

Anyway, the commission didn't recommend against interbasin transfers, and the senators from the Pacific Northwest didn't like it. The commission recommended that if you need an interbasin transfer and it was economically justified, you should undertake it. But the commission did feel that you should make the basin of origin whole. In other words, you shouldn't just take their water, but you should recompense them, either with other projects or in some other way, to make them whole. This puts a double burden on an interbasin transfer, so you've really got to have a good project.

The commission was adamant in recommending that project beneficiaries should pay the economic costs of development, but always put in that you should give due consideration to the government's role in environmental protection. So it's not a rigidly economic report. Charlie Myers would have made it so. He was very rigid on economics, and he said, "If you want to have a scenic river, you've got to have some way to collect some money from the people that look at it." He was more rigid on reimbursement than our economists were.

Q: Let me ask you, before you go ahead with the reception to the report, I want to ask you one more question about the organization of the people who were involved. There were evidently panels that were established too. I presume these were advisory panels on various facets of water resources, everything from the economics of discounting to weather forecasting or whatever. What role did these panels have? Were they frankly cosmetic? Did they have substantive roles? What purpose did they serve?

A: I mentioned that earlier but I didn't call them panels. They were study committees set up to produce reports. Vic Koelzer set one up on planning and it was chaired by Harvey Banks. That's what you're referring to, isn't it?

Q: Okay.

A: And we had an environmental panel on which we had Bostwick Ketchum and George Woodwell from the Wood Hole Laboratory. It was a good environmental panel. We had a good pollution control panel headed by Dwight Metzler of Kansas. They were not just advisory because they were writing the background reports for publication. The environmental panel didn't do a major report, but it helped us to formulate a contract with Charlie Goldman out at Davis, who produced the big environmental report.

Q: Were the panelists paid or did they just donate their time?

A: I think they just donated their time, just like they would have for a National Academy of Sciences committee.

---

**Theodore M. Schad**

Q: Well, if I understand you correctly, then, your reports were generated three different ways: internally from your own staff, by contractors who were hired on contract, and finally through committees of experts. Is that right?

A: That's right.

Q: Okay, thank you, I just wanted to clarify that.

A: Well, it took a lot out of me and I was glad when it was over. I needed a rest. So I drafted a letter for Chuck Luce to send me on June 28th, telling me my services were no longer required because the reports were finished and they'd had the first hearing. This put me on the retirement rolls on June 29th, I didn't get any money for a long time, but I did get the benefit of what I believe was a percent increase effective July 1.

Q: You never considered going back to the Library of Congress?

A: No. For one thing I was at the executive level IV, and it would have been a step down. I didn't really want to go back, but if somebody had twisted my arm and said, "Ted, we really need you," I might have. I think I told you I've never gone out to apply for a job after the first time with the Corps of Engineers and taking civil service examinations to become a junior engineer. I guess I really didn't know how to get a job.

My wife told me that I should get a job in some completely different field to unwind. She thought I was beat from that last three months of 80-hour weeks. She could see what it had taken out of me, and I would have never been able to do it if it hadn't been for the support that she gave me.

One thing happened that I regret. When my elder daughter was a teenager, we had time to go camping and climbing together and I took her out West on mountain climbing trips several times. We did a lot of things together. But during this five years of the water commission, my second daughter became a teenager and we didn't have time to do as many things together. I never got to take her out West on a climbing trip. Of course, she did it all on her own and ended up as the chairman of the Explorer Scout Troop which did a lot of caving and climbing and bicycling. This is the co-ed upper level of the Boy Scouts. She did all that on her own. She didn't need me. But still I regret that

I was working too hard and didn't get to know her as well as I would have liked to.

There was one more hearing on the National Water Commission report in mid-July when the federal agencies testified. At the hearing on June 26th, just the commissioners had testified, and it was all sweetness and light except for what seemed to be amazement that they hadn't really come out foursquare against interbasin transfer. The hearing had been chaired by Frank Church who had been quite upset by earlier proposals to take water out of the upper Snake River to augment the flow of the Colorado River.

At the July hearing, representatives of the Water Resources Council and the federal agencies testified. My recollection is that they mostly hadn't had time enough to study the report, and the hearing concluded with the committee asking the Water Resources Council to respond to a series of questions.

The Water Resources Council was required by the National Water Commission Act to send comments on the report to the President and to the Congress. So many commissions had written reports which were sent to the President, and that's the last you ever hear of the report. There was a different provision governing this commission, which I had suggested to Wayne Aspinall when his committee was considering its authorization. That may have also been in the earlier bill introduced by a congressman from California, which I had worked on. The intent was to make sure that it got to the Congress. But it also required that the President comment on it and send his recommendations to the Congress. This was never done, and the report remains in limbo to this day.

Incidentally, we printed 9,000 copies and sent one to every congressional office. We also sent copies to the agencies downtown and to everybody that had been on any of our panels or had worked with us. I think we distributed about 2,000 copies that way. The Government Printing Office sold the other 7,000 copies and later reprinted it. When they were all gone, the plates were loaned to the Water Information Center on Long Island and they reprinted it.

One of the interesting things was that when we went to mail those copies out, at least five tons of reports, our local post office wouldn't take them; we had paid our postage bill for that fiscal year on the basis of the preceding fiscal year. So when all of a sudden we were dumping five tons of reports on a little neighborhood post office, they wouldn't take them. Bob Baker then found he

Theodore M. Schad

---

could take a bag of reports to each of six or eight different post offices every day so we could get the reports mailed. Just another example of how resourceful the staff was.

Q: You talked about how the Senate at least, and I presume that some people in the House too, reacted rather negatively to some of the recommendations. It strikes me that maybe '73, '74 were not particularly good years for commissions and studies. I'm referring to the fact that in '74, Congress, as I understand it, tells the Water Resources Council that it's not doing a particularly good job on principles and standards. I don't know whether you can shed any light on this or not, or if it at all relates to the National Water Commission Report, but as I mentioned earlier, in 1970 congressmen told the Water Resources Council to come up with principles and standards based on the four accounts, and then in 1974 Congress goes back and asked the Water Resources Council in Section 80(c) of that act to basically take a new look at the whole water resources field.

Was there a fair amount of disenchantment with the lack of emphasis in the executive branch on regional development, on social well being-on these kinds of things? Can you give me any background on any of this?

A: Well, I wouldn't put it that way. I think the real disenchantment was because the project reports weren't flowing up to Congress the way they used to, with an omnibus bill every two years. 1970 had been the last one, and there hadn't been enough reports to even think about an omnibus bill in '72. As I recall, the '74 act was really just basic authorizations and authorizing more studies. The lack of new projects, I think, is what was disenchanting Congress, and the agencies were saying that they couldn't get the reports out under the principles and standards.

Also, NEPA [National Environmental Policy Act] was in full effect by the time, which put an added burden on the agencies to do environmental impact statements, and there were lawsuits holding up projects. I think that's what disenchanted Congress. And I'm sure that agency people, in talking to Congress or talking to local interests, were saying, "We can't do this because of NEPA; we can't do that because of the principles and standards." In my opinion that's what disenchanted Congress.

I don't think it had anything to do with the National Water Commission report. In fact, I never got any real recognition about this report from the House side except that I got a very nice letter from Wayne Aspinall saying, in effect, "You did a great job." Actually, I got a couple of letters like that from members and staff people on the Hill who knew me. But they never had a hearing on the House side as far as I know.

But the staff read it and quoted it in committee reports on bills from time to time.

**Q:** I don't like to ignore the report, but I'm just trying to get things up-to-date here for a second. By this time, the Water Resources Council's talking about these two principal accounts, national economic development and environmental quality, and it has been argued to me by people who are still in government that Congress was not happy with that emphasis, that continued emphasis on those two areas, and that there were people in Congress who felt very strongly that there had to be much more of a regional focus in water resources and also more emphasis on this social enhancement value. Some of this was in the Appalachian Region project in 1960s. Do you have any response to that?

### **Environmental Studies Board, National Academy of Sciences**

**A:** No, because I was no longer involved with the Congress. After I left the commission, I went to the National Academy of Sciences working as executive secretary of the Environmental Studies Board, of which Gilbert White was the chairman at that time. Later, I became deputy executive director of the Commission on Natural Resources of which he had become chairman. So my orientation at that time was completely different. We were not strictly geared to the Congress so much, but more to federal agencies that ask you to make studies. The project for which the academy had hired me was to provide assistance to the Rockefeller Commission. The name of it was the National Commission on Water Quality. It was set up by the Water Pollution Control Act amendments of 1972.

That was my first principal substantive staff project at the National Academy of Sciences, but then I also was given administrative responsibility for a major study financed by EPA on the use of scientific and technical information in environmental decisionmaking. This was a big project, another \$5 million

Theodore M. Schad

---

project that was spread around through other parts of the academy. I became so engulfed in the administrative work that I wasn't able to do much substantive work.

It was my job to keep those studies going, plus a lot of other different studies that were under way, and also to raise money for new studies. I guess that's why I wasn't able to keep up with what the water resources agencies and the Congress were doing. I did get involved in the Potomac River studies for the Corps. This was the study of the potential reuse of the Potomac estuary for water supply through development of a water purification plant at Blue Plains. The other part of that was an overall study of the water resources requirements of the Washington metropolitan area.

I had worked out the legislative authorization for that study with Senator Charles Mathias's staff. It was needed because Sixes Bridge and Verona Dams were authorized in the '74 act, but before you could move into construction, you had to do these other studies to show that they were the only way to get water for the Washington metropolitan area. I was at the academy when that came up and we drafted some language to permit the Corps to ask the National Academy of Sciences and the National Academy of Engineering to make the studies. I was involved in getting the legislation, but when it came before the Environmental Studies Board for approval, they turned it down because the board felt that it was not an appropriate study for the academy. Most of our studies were of a more generic nature. Another part of the National Research Council, the Assembly of Engineering, agreed to do it and eventually it led to the creation of the Water Sciences and Technology Board to do studies like that.

So I was working on all kinds of things like that, and I wasn't really following water policy in the way that I had for years, except, of course, water pollution control policy, which was the purpose of the work for the Rockefeller Commission.

Q: Did you get involved in restudying the Corps' original Potomac report-the famous 16-Reservoir report that ran into a road block.

A: No. I did not, but that's where they got the proposal for Verona and Sixes Bridge.

**Water Resources People and Issues**

---

Q: You also were a consultant for the Conservation Foundation at the same time, were you not?

A: No, that came later. But first let me tell you how I got to the National Academy of Sciences. This was another one of these things that just happened to me. It was all due to Dick Carpenter, who had been one of the people with whom I had been involved in bringing into the Library of Congress as one of our senior specialists in science. Before he came to the Library of Congress, he had not been in the government at all. He had been working as a chemist with the Callery Chemical Company, or Gulf Oil, or somewhere in industry. He was called to my attention by Carter Bradley, who was on Senator Mike Monroney's staff, who told me that he had met a young man from Oklahoma who wanted to work in the policy area. And that was my introduction to Dick Carpenter. We didn't usually consider hiring anyone recommended by a member of Congress, but I agreed to let our search committee interview him. We were staffing our Science Policy Division and the committee interviewed him. He was the best candidate so they recommended him. So we did hire him as one of our senior specialists in the scientific policy area.

That reminds me of another example of where I goofed in 1967 or early 1968. Bill Van Ness from Senator Jackson's committee came to me and said, "We're thinking about introducing legislation to require an environmental analysis of projects before they can be recommended." Bill Van Ness was staff director of the Senate Interior Committee. He showed me their draft bill and told me he'd been working with Lawrence Rockefeller and other prominent people in the environmental movement and asked for my help.

I looked at what he was proposing and concluded that it would slow down the authorization of water projects and that the Congress would never enact it. So I think I said something like, "The Congress is never going to pass legislation like this because it'll essentially bring the water resources program to a halt." So I didn't agree to work on it with Bill Van Ness but turned the assignment over to Dick Carpenter, thinking that it wasn't important enough for me to take on. I was still the senior specialist in engineering and of public works but I was also the deputy director of the Legislative Reference Service. I just didn't think that legislation was going to fly.

But Dick Carpenter took on the assignment, working with Bill Van Ness and others. They set up a colloquium which made a good record in favor of the

Theodore M. Schad

---

legislation. By that time we had another more junior young man on our staff whom we had hired away from the United Nations Development Program in New York. This was Wally Bowman. He and Dick Carpenter worked with the congressional committees on both sides providing the kind of assistance that the Legislative Reference Service used to provide routinely before the exponential proliferation of congressional staff following the enactment of the Legislative Reorganization Act in 1970. So Dick and Wally had important roles in the enactment of NEPA which I think was signed about the first day of 1970. By that time I was over at the National Water Commission.

Q: Did you ever meet Keith Caldwell?

A: Yes. Keith Caldwell was one of the people who considers himself to be the prime mover in getting that law through. Keith was a friend of Dick Carpenter's and Wally Bowman's and was involved with them in the early stages, maybe before they got involved. Keith later became one of my good friends. He was a member of the Environmental Studies Board, but before that I think he did some work for the National Water Commission.

Anyway, my judgment was that the NEPA bill was not going to go anywhere, and I was so completely wrong that I probably shouldn't even mention it. But Dick Carpenter did a great job in connection with the NEPA authorization, and that may well be why he was selected by the National Academy of Sciences to direct the Environmental Studies Board. So that gets me back to how I got to the National Academy of Sciences.

In early July I was cleaning out my desk at the National Water Commission office when I got a call from Dick Carpenter. He was at the point of trying to get a study for the National Commission on Water Quality organized, and he wanted my suggestions for the names of people who might be willing to serve on the academy's committee.

Rockefeller and the other members of the commission had been appointed, and I believe Ron Linton had prepared a prospectus for accomplishing the commission's work. Fred Clarke, who had just retired as Chief of Engineers, had been appointed as executive director of the commission and Joe Moore was the study director. They had just started to dicker with the academy for the establishment of a study committee to provide consultation services to the commission. Dick Carpenter had not had much experience in the water

**Water Resources People and Issues**

---

pollution field. He was a chemist and had been more involved in environmental policy, which had led to his appointment as executive secretary to the Environmental Studies Board. He had just been made executive director of the new Commission on Natural Resources, which at that time encompassed the Environmental Studies Board, Agriculture Board, Oceans Board, Radioactive Waste Board, and Minerals and Energy Board covering the whole, broad, natural resources area. So he was swamped with work.

When he called me up to ask for my help in finding people to work on this study for the Rockefeller Commission, I gave him some names of people who I thought would be competent to serve on the committee. At the end of the conversation Dick said, "How's everything with you?" And I told him that my work with the National Water Commission was finished, that I had applied for federal retirement, and that I was going to do consulting work. Actually, I already had a few academic things lined up, such as giving a short course out at Berkeley and some lectures at the University of North Carolina and a few speeches. But I hadn't given my future much thought because I needed to rest for a while after the intensive work to close out the commission. I also had a mountain climbing trip to the Mount Robson area in British Columbia scheduled for the latter part of July. And there was still one more hearing, the hearing with the government agencies on the National Water Commission report scheduled for July 17th. A few days after that I was planning to leave for Mount Robson.

So when Dick asked me if I would come to the National Academy of Sciences to handle the water quality study, I responded negatively. I told him I was too weary to take on that kind of a job. Dick persisted and said he would talk to me again when I got back from the climbing trip.

It was a great outing with a group from the mountaineering club at the State University of Iowa. But after a lapse of several years during which I hadn't done much climbing, the mountains seemed to have gotten a lot higher than when I was in my 30s and 40s and doing a lot of climbing. We were camped at about 6,000 feet at the northeast side of Mount Robson. We had to walk in about 16 miles to get there, the peak went up to over 12,500 and was full of glaciers on that side. To climb Robson, the easiest way you had to kind of circle around the mountain to ascend the peak from the south and it was a two-day trip. All of the other peaks in the vicinity were about 10,500 feet or more,

Theodore M. Schad

---

which made for a long day. At least for me, 4,500 to 5,000 feet is a long climb.

I made a few climbs and was getting relaxed, when one day near the end of the trip-it was a two-week trip-I slipped on the way down from a peak. I was off of the climb, off of the snow and rock and steep part of the climb, walking down the trail, but I slipped and almost fell, twisting my knee and, in recovering, twisting my back. The next morning I was practically a cripple, 16 miles from the road. There were two doctors on the trip. They put on hot compresses and gave me some pain killers, and after I rested for a few days I could walk with some difficulty. The doctors had a big debate. One doctor thought I ought to get a horse to ride the 16 miles down the trail, and the other doctor said it was the worst thing you can do if your back is bad.

I had to make the decision and I compromised. I rented a horse but I started walking early in the morning so I could get across the streams before the snow started to melt. And I got down off the really steep part of the trail, which would have been brutal riding on a horse, and I walked about 12 miles before the pack train caught up to me with the horse that I had engaged. So I rode the last four miles. Then I rode down to Banff in the back seat of a Chevrolet Monte Carlo coupe all crammed up with luggage. When I got to Banff, I could hardly walk, and when I got home after sitting on an airplane, which is never good for a tall person, I was really a cripple. I was making phone calls to get work lined up and rarely ever got through on the first try and I didn't have a secretary and Dick wanted to talk to me again.

So that's how I came to work at the National Academy of Sciences. Dick made me an appointment to meet with John Coleman, who was executive officer of the National Research Council at that time. John Coleman had tried to hire me for doing the academy's study for President Kennedy back in 1961, but I couldn't go over there because I had been away from the Library for so long working on the Senate Select Committee staff. I had been on some other academy committees so John knew me, and for him it was just a question of when could I start work. I was barely able to hobble around, but I started work about the middle of August. And then it turned out that in addition to running the water quality study, I had to be the executive secretary of the Environmental Studies Board for Dick to find enough money to pay my salary. So I ended up with a lot of other administrative responsibilities for things I didn't know much about.

We had air quality studies, including one for the Senate Public Works Committee. This was an antecedent to the Air Pollution Control Act. That study was underway when I came on board in 1973. We did it for Senator Muskie and I remember that Leon Billings, his staff aide, was furious when the academy hired me because he held me responsible for what the National Water Commission had said in its report which rejected the technological fix of the '72 Water Pollution Control Act and the zero discharge goal. The committee had just recommended continuing a water quality based approach, with a polluter pay philosophy.

### **Commission on Natural Resources**

I went to work at the National Academy of Sciences on a two-year assignment and I ended up staying there 10 years. I had a great deal of interesting work, not so much in the water resources field, although a lot was related to water. I was in charge of the study on federal water resources research which we completed just before the Reagan administration decided to abolish the agency that had recommended it.

I was working with a lot of the same people I had worked with over the years. Gilbert White was chairman of the Environmental Studies Board and then became chairman of the Commission on Natural Resources. I was deputy executive director to Dick Carpenter when he went off to teach at Dartmouth for a semester and I had handled his work whenever he was away. So when he resigned to take another position, I became acting executive director of the Commission on Natural Resources for about a year and staffed the selection committee that was appointed to find a new executive director. It took about nine months or so before we ended up hiring Wally Bowman with whom I had been associated at the Library of Congress.

I was involved to a certain extent on the selection committee, but I didn't make the decision to hire him. That decision was made by Phil Handler. I remained as deputy executive director. I enjoyed the privilege of working as deputy to Dick and Wally, two people who had formerly worked under my supervision. We got along fine together and there was a great deal of mutual respect. I was delighted to have them take the primary responsibility, but I was in a position to fill in for them whenever it was necessary. We did a lot of good work together.

---

Theodore M. Schad

- Q: Tell me about this study that you say Jamie Whitten requested on science and technology and the impact on water resources or something of that sort? Can you tell me? That sounds like an interesting one to me.
- A: Yes, it was very interesting. Jamie Whitten wrote it into the appropriations act for EPA, \$5 million. EPA was directed to contract with the National Academy of Sciences for a study of how scientific and technical information is used in environmental decisionmaking. While he was at the Legislative Reference Service, I think Dick Carpenter had been requested to help Jamie Whitten develop material for his book called *That We May Live*. This was a stirring defense of the use of pesticides to keep up agricultural production. Knowing that Dick would be in charge may be what led Congressman Whitten to request that the study be done. I don't know whether he came to Dick to get help with the wording of the legislation for the study, but usually the members would consult with us before they would write legislation. We had to tell them that the Congress could not direct the academy to do a study because the academy is not a government agency. It's an independent corporation, not for profit, created in 1863 and chartered by the Congress.

Anyway, the request was directed to us and Dick and I developed a very good rationale for the study. We proposed about a ten-study program, including generic studies in areas like research, decisionmaking, and manpower, and a number of specific study areas like noise pollution and sludge management. There were several others that I don't remember. All of these studies would be done by committees under general control of the Commission on Natural Resources through a master steering committee which would be directing the whole study and would put together the final summary report.

At that time, \$5 million would pay for a big study. It was probably about 10 percent of the National Academy of Sciences' annual budget. Although it was not a one-year study, it was a big study and the Commission on Natural Resources was brand new. It had just been set up for a short time. This was Phil Handler's reorganization of the National Research Council as the operating body of the National Academies. It was divided into four commissions and four assemblies-assemblies being disciplinary oriented and commissions being multidisciplinary.

There were some clashes obviously because you can't divide the scientific world up that way. So Phil Handler, even though he had a great deal of faith

**Water Resources People and Issues**

---

in Dick Carpenter, decided that he didn't want to let this new little commission, which had a total budget of only about \$5 million, take on the whole \$5 million study for the whole academy which cut across the interests of other units. We argued against the decision but we lost, and a decision was made to have an overall committee with one representative from each of the eight commissions and assemblies-or maybe just seven of them, because one of them was international.

The first thing they did was throw out our rationale, which I believe was a rational basis for the study, and let each group propose a study. Just by coincidence it happened that there was one study for each of the commissions and assemblies that was involved. It's somewhat like what happens when you write an omnibus bill with a number of members on the committee and just by chance you happen to have a project in each member's district. So that's the way that study was done.

We lost control of the overall study, but the Commission on Natural Resources and the Environmental Studies Board did have the major role because we had the overall decisionmaking study, which put it all together, and we had the research study. It was a very interesting study. At the beginning I kept meticulous files on how it was being done, which soon filled several file drawers. The amount of paper you can generate with \$5 million is just unbelievable!

Q: Was there one specifically on water quality?

A: No. But there should have been. By that time we had a contract with the Rockefeller Commission and Joe Moore, the study director, was enraged when he found we were talking about the possibility of including a study of water quality. The executive director of the Rockefeller Commission, Fred Clarke, who was a member of the National Academy of Engineering, didn't think there would be any problem, but Joe Moore thought it would be a conflict of interest. He even objected to our having a study dealing with municipal sludge management because he felt that the National Commission on Water Quality should be the only entity working on any aspect of water pollution control. So we didn't include a study on water, but we did have the one on municipal sludge management. It was chaired by Harvey Banks, one of three studies that stayed in the Environmental Studies Board.

---

Theodore M. Schad

The Whitten studies led to what might be characterized as a dogfight within the National Research Council representing the bones that the dogs were fighting over. In the end, the money was pretty well spread through the organization. Having a committee representing organizations instead of disciplines is not the way the academy usually does things, so I'm not really too proud of how that \$5 million was spent. However, there were some good reports made; a series of 10 reports were published. Whether it made Jamie Whitten happy or not, I don't know. A man like Jamie Whitten probably never paid much attention to them.

Q: Why don't you continue with what you did after you left the National Academy of Sciences. When did you join the Conservation Foundation? Was it when you were still with the academy?

A: No, but let me continue with what #happened as they reorganized. When Frank Press, who had been a member of the Commission on Natural Resources before he became President Jimmy Carter's science adviser, was elected to the presidency of the National Academy of Sciences in 1981 which made him chairman of the National Research Council, the work was slowing down. There had been a lot fewer contracts during the Carter administration because we were perceived as being partial to industry. I remember one official of the EPA telling me, "I'm not going to piss away any more money on the National Academy of Sciences."

I had been quite busy with a study on water resources research, of which Bill Ackermann from Illinois was the chairman. It was an analysis of the Office of Water Resources Research's proposed five-year plan, which they drew up toward the end of 1980. We got our report out in January 1981, but nobody was interested. They never even put it on the shelves with other unread reports because that's when the Reagan administration decided to abolish the Office of Water Resources Research. There weren't going to be any shelves!

There didn't seem to be any influx of studies coming in from the Reagan administration, probably because, by that time, we were perceived as being partial to environmentalists.

Anyway Frank Press decided to reorganize the National Research Council staff. For the lower work load, the administrative structure may have been considered top heavy. The work of the Commission on Natural Resources had dwindled

**Water Resources People and Issues**

---

from about \$5 million a year down to about \$3 to \$3.5 million a year, which hardly justified having a separate commission. So he decided to combine natural resources with mathematics and physical sciences into the Commission on Physical Sciences, Mathematics, and Resources. In essence, Wally Bowman's job and my job were abolished.

They wrote Wally Bowman a letter saying that his job was abolished and gave him a pretty nice golden handshake as they said good-bye. They even paid the fee to an outfit that tried to help him get another job. But Wally didn't need that kind of help. He helped Gus Speth write a proposal to the MacArthur Foundation, and when it was funded, he became the administrative assistant director of the World Resources Institute.

Wally, of course, was well known by everybody in the environmental field because he had been the executive director of the Conservation Foundation and had been involved with the NEPA authorization when he was at the Library of Congress, so he was a big help to Gus Speth. The first grant was \$14 or \$16 million from the MacArthur Foundation, and Gus raised a lot more money.

I never got any official notification that my job was terminated. I stayed on the payroll and nobody ever told me that my title was changed. But later, in what I thought was an unusual way, in a memo to the whole staff, Frank Press announced that I was going to be involved in organizing the water resources activities for the new commission.

**Commission on Physical Sciences, Mathematics, and Resources**

**Q:** Excuse me, which new commission?

**A:** The new commission was the Commission on Physical Sciences, Mathematics, and Resources, CPSMR. They changed the whole organization around and eliminated some of the jobs, and I was given an allocation of funds to try to develop a board on water science. In the meantime, the Potomac River studies for the Corps of Engineers were nearing completion in the Water Technology Board of the new Commission on Engineering and Technical Systems, CETS, and they decided they were going to create a board on water technology.

---

Theodore M. Schad

Earlier, I think I told you, the reason that we hadn't done this study in the Environmental Studies Board was that the study of the water purification plant and of the Washington water supply was considered to be technology, so it was taken over by the Assembly of Engineering. So we started down the road toward having two boards, which didn't make much sense to me. But it soon turned into a bureaucratic struggle. Bob White had become chairman of the CPSMR, and Guy Stever was the chairman of CETS. Neither one would give an inch, and I just couldn't get them to agree on one board. Then letters started coming in from people like Gilbert White and Tom Malone telling Frank Press that there was no way to separate water science from water technology. Finally, enough people complained about the idea of splitting water technology from water science that Frank and his executive officer, Phil Smith, agreed that we would have one board and it would report to both commissions.

I stayed on for another year or so as the CPSMR member of the Water Sciences and Technology Board staff. We called it the WSTB, instead of the Water Resources Board so we could call it "WASHTUB. " I stayed on, working three days a week because there wasn't enough work to keep me busy more than that, until I was 65 years old. I guess I felt as if I'd been kicked upstairs, but I didn't really want to take on any new responsibilities.

Also, I had bought a sailboat a year earlier and had gotten a Coast Guard captain's license so I could take paying passengers. My return to sailing really went back to my memories of the 1973 trip to Mount Robson when my legs had given out and a trip to Switzerland in 1977 with the Seattle Mountaineers on which I had not been able to climb any of the high peaks because of the deep snow. I do love to get to the top of high mountains. Life is so simple when you get to the top of a mountain; there's only one thing to do and that's to go down. And it's so easy to make that decision.

So I had decided to return to my teenage passion for sailing which I started in a big way by buying two boats for chartering. This was facilitated by the Reagan tax philosophy which permitted use of the accelerated cost recovery system, so that it was financially advantageous to buy a boat rather than to keep on chartering. It worked out so well for the first boat that I bought a second boat and decided that sail boat chartering would be my new career. That's why I'd gotten my Coast Guard captain's license so I could make it a business and spend a lot more time sailing.

**Water Resources People and Issues**

---

One of the first major trips was when I sailed a group up to a meeting of the WSTB at Woods Hole. There were four of us who were going, we were all good sailors, so we sailed the boat up to Woods Hole, which is an ocean passage. In the fall of 1983 I planned to take one boat down south to charter it out of Fort Lauderdale so this was another rationale for retiring from the academy.

I also hoped to spend more time doing things with my wife who always wanted me to just stop work because with the possibility of an annuity from the academy and the federal annuity, I didn't really have to work for pay. She also thought it was great for me to get some relaxation on the sailboat, although she was never interested in sailing.

Q: Where do you keep your boats?

A: Both of them are now chartered out of Annapolis. When I took that boat south in 1983, I chartered it through a broker in Fort Lauderdale. We had already booked one charter for \$3,600 for four weeks. That was a very nice fee, even after the charter agency took 35 percent. So I thought it would pay to take it down south. But the competition was very stiff and we only had a couple other charters, so I didn't take the boat down anymore.

But it was fun taking the boat south in the fall and bringing it back in the spring via the Bahamas. I also took one charter party to Key West. We had planned to go to Fort Jefferson in the Dry Tortugas, but there wasn't enough time.

**National Groundwater Policy Forum, Conservation Foundation**

While I was on the ocean in the spring of 1984 bringing the boat back from the Bahamas, my wife started to get calls from Governor [Bruce] Babbitt who had agreed to chair a groundwater policy forum for the Conservation Foundation. And that's when I got involved with the Conservation Foundation. Babbitt never could understand why my wife couldn't get in touch with me. But I finally got his message and got in touch him, and he asked me if I would be the executive director for the National Groundwater Policy Forum. After I read a lot of material and talked to Bill Reilly, I agreed. Bill Reilly had been on the Commission on Natural Resources and I knew it would be a pleasure to work with him. I also knew Toby Clark, who had been at EPA before he came to

Theodore M. Schad

---

work at the Conservation Foundation, and I knew I would enjoy working with him.

It turned out to be a lot of fun, and in a way I was glad to be back at work on a policy study. I was only supposed to work three days a week, but I ended up working a lot more. The commission met only a half a dozen times; we had three field hearings and frequent staff meetings. I think we did a lot of good work in evolving a policy which would take the primary responsibility for groundwater out of federal hands and give the primary responsibility to the states with action to be taken by local governments and the private sector.

Governor Babbitt was a good chairman, but he didn't always follow the script we prepared for him. We proposed a lo-point program under which each state would have a program for managing its groundwater, starting with mapping of aquifers, setting ambient standards, and coordinating groundwater with surface water.

Conjunctive management is what it is called, but we also stressed managing groundwater with other natural resources, a much broader concept. One of the big fallacies in resource management is that we've never really had an overall look at resources. This was one of the places where the Conservation Foundation has taken a leadership role: multimedia environmental management. This was where the Congress has been led astray because the federal agencies have never coordinated programs for water pollution control, air pollution control, and solid waste management. Sometimes the programs are in the same committee and sometimes they aren't.

The Conservation Foundation has done work trying to remedy that situation. The modus operandi has changed from when they were funding Leopold and [Thomas] Maddock and Hoyt and [Walter] Langbein to do studies. Now they are doing most of the studies with their own small staffs, financed with grants.

The groundwater policy study took a little bit longer than we expected. It was supposed to be about an 18-month study, but it was almost two years before we completely finished. We had put out the draft report and gotten back comments and were revising the draft when I got a call from Ronco Consulting Corporation, which had a contract with the USAID [United States Agency for International Development] for help on the Gambia River basin. The USAID

## Water Resources People and Issues

---

project was to advise an institution called, in English, the Gambia River Basin Development Commission.

It was an international organization comprising the countries of Senegal, The Gambia, Guinea, and Guinea Bissau. The four countries had organized the commission by an international treaty. It didn't have much money, but they had hopes of building some big dams, on the Gambia River which was their idea of how to solve their water problems. The Gambia River is one of these streams that's a roaring torrent in the wet season and a dried-up river bed in the dry season. The idea was that you'd build some dams and store the water in the wet season so that you'd be able to irrigate all through the year.

USAID had commissioned an immense study which had been done by the Center for Research on Economic Development at the University of Michigan. There was a series of five reports which stressed the environmental problems of these dams which were severe. They also had a lot of mapping done and were trying to wrap the whole thing up into a report which would help the OMVG (the French name of Organization *d*Mise e*Valeur* de l*e*Fleuve Gambia) achieve its objectives. Ronco wanted me to go to Dakar as an expert on river basin planning, to try to reorient the plan into a more environmentally sound solution to the problems. I don't remember who had given them my name. It may have been Henry Caulfield. It sounded as if it would be an interesting assignment, and I thought I could do some good. It would require going to Dakar, traveling in the Gambia River basin, and then writing a report on how they should wind up this project to led to a more realistic development plan.

By that time we had almost run out of money at the Conservation Foundation for the groundwater study. It was funded by the Ford Foundation and the Joyce Foundation and several others. I never liked the business of going to foundations for money. To me it seemed like a conflict of interest to ask for money, part of which was going to be used to pay my own salary. The report was completed to the stage of refereeing the haggling over words between David Roderick, the chairman of U.S. Steel, Jay Hair, of the National Wildlife Federation, and the governors, Governor Babbitt, Governor [Thomas]Kean of New Jersey, and Governor [Anthony Scully] Earl of Wisconsin. There were about 15 members and they worked well together, but they were arguing over the final words of the recommendations. So it looked like there were greener pastures for me in Africa.

Theodore M. Schad

---

The Conservation Foundation was willing for me to go. Toby Clark had been very much involved in getting the groundwater policy study going before I came on board, and he took charge of completing the report, which was called "Groundwater, Saving the Unseen Resource." In the meantime, several other groundwater studies were made which tended to vitiate the Conservation Foundation report. The National Water and Power Alliance was making a study as was the Northeast-Midwest Study Conference, and the National Academy of Sciences was beginning work on a groundwater study using some of the same members that we had as staff representatives.

Senator [Dave] Durenberger later introduced legislation to implement the recommendations of the Conservation Foundation report, and there was a companion bill in the House, but they foundered on the rock of bureaucracy. The federal agencies involved in the federal research and monitoring efforts testified at hearings, but there was no agreement on a division of responsibilities, so the bill was never reported out of committee, to the best of my knowledge.

### **River Basin Planning, Dakar**

So in 1986 I went over to Dakar for two or three weeks in the field, then came back to Washington to complete a report on a plan which should have led to a basin plan oriented much more toward development of groundwater rather than building big dams, some of which have turned into disaster areas in Africa.

The original plan that had been proposed by French and British engineering firms contemplated a large dam in each country except Guinea Bissau, with a number of smaller dams in the headwaters. It was somewhat like the Corps of Engineers' original plan for the Potomac River, which foundered because one of the dams would have flooded some of the Byrd family's apple orchards. And this was to help people that are barely into the 20th century. A lot of them are not living in the 20th century yet; they're living in mud huts with dirt floors and thatched roofs, and they're not ready for Western style irrigation. To make the irrigation pay, you would have to double crop and farm very intensively. The dam in the Gambia would have been a tidal barrier that would flood out and destroy the tidal irrigation on the Gambia River plain. This is rice irrigation in the upper reaches of the estuary where you still have fresh water half the year.

Anyway, I outlined a planning technique, possibly based too much on the way we do it in the United States, but which would get the local people involved in deciding how to go about developing their resources. They're not dumb people, but they're not academic people, and they don't do a lot of writing. Many of them don't speak French or English, but have their own language. But from what I'm told, they're quite intelligent and they do a good job of managing the resources they have. So I wrote a report with a schedule of public meetings throughout the basin and a plan for developing a number of small projects, mostly from groundwater. Essentially it would have the OMVG staff, with the assistance of USAID, do the same thing we would do if we were making a basin study in this country, only geared to those people and finding out what they wanted and what they were ready, willing, and able to do.

I found that there are many water resource developments in Africa including some in The Gambia, that have been built with Western money, and even though they did a good job building them, they fall into disrepair when the Westerners go home because the local people don't keep them up.

The USAID contract was to end in December 1987, and I went back to the Gambia River basin and to Dakar again in the fall of that year to complete the final report only to find that the OMVG staff hadn't done anything that I recommended, but were still trying to get money to build the big dams. I thought the program I had worked out was realistic, but the politicians running OMVG think in terms of building big dams. We've had the same problem in this country. We used to have a hard time getting full consideration of the social and environmental impacts of projects.

When you build a dam, you've got something you can see and sometimes a pretty lake-if you like lakes rather than flowing rivers-and you can put a plaque on the dam with a politician's name on it. Sometimes you can even put the name of the engineers who designed the dam, but particularly the local politicians love to dedicate dams. I don't know what's going to happen with the Gambia River, but it's in an area where the population is increasing faster than their resources are being developed. If the current increase of about 3 percent a year continues, the population is going to double in about 24 years. So I guess the six months I spent on that project were wasted, but it was a good experience for me.

Theodore M. Schad

---

After I finished the report on the Gambia River basin, I worked with a firm named Apogee Research on various projects for the Corps of Engineers and EPA. I got involved with Apogee Research primarily through working for the National Council of Public Works Improvement. I worked on a couple of their projects, one of which was with Apogee.

But my wife had developed a brain tumor in 1985, and after it was removed, I was spending a lot more time with her. We traveled as much as she was able to in 1986, but the tumor continued to grow, and she is now terminally ill. It's a question of time, and she is losing her ability to function, which is very depressing for me.

### **Family Life**

Q: Let's talk just for a few minutes if you will about the personal side of your life. We've been talking about your professional career all this time.

I'd like you to talk about your wife a little bit, as you please, and also mention your children and what they're doing and so forth.

A: I guess I probably married the only person in the world that would put up with me. And this, interestingly enough, goes back to my love of maps. She loved maps too, and was a map collector. That's how I got to know her. We corresponded for years before we even lived in the same city. It was a very voluminous correspondence for almost five years which led to our falling in love. We were married in 1944. She's a very wonderful person. I guess everybody says this about their wife. At least I thought she was a very wonderful person, a very warm and friendly person. She was the librarian at Judson College in Marion, Alabama. She got her library degree at Louisiana State University, and then she worked in Seattle for the University of Washington Library after I persuaded her to come out to Seattle when I lived there. We had a lot in common, particularly our love of music and the theater and literature and people.

When we lived in Seattle she began climbing some of the minor peaks with me. She used to love climbing in the spring and early summer when you could slide down or glissade on the snow. Sometimes you can do a sitting glissade, sitting on a poncho and descending sometimes thousands of feet. It is really great fun

**Water Resources People and Issues**

---

and it's a lot easier than walking down. So she enjoyed the mountains, but not so much the cliff climbing. When I came back to Washington and took up cliff climbing, or rock climbing as we called it, along the Potomac Gorge, she went out a few times and demonstrated that she could do it, but she had gotten a job as a children's librarian in the District of Columbia Public Library and so she gave up climbing. She never took up caving when I did. Caving came to me naturally because the climbers were exploring some of the difficult caves which required the use of climbing techniques. It was a lot cooler in the summer climbing underground than in the open, and that's what got me started.

My life was very much organized to keep some quality of life by spending as much time as I could in the outdoors. We did a lot of camping on weekends and on summer vacations in New England and eastern Canada. Kay eventually went to work for the Navy Department Library. She was working there when our first child was born, and she loved it so much that she really intended to go back to work.

Q: When was your first child born?

A: In 1955.

Q: What was her name?

A; Her name is Mary Jane. We fully expected her to be a boy because she was large and active in the womb. We were going to name her Clifford William after a very good friend and my father's. The doctor was positive she was going to be a boy because Kay is small, 5 feet 2 inches tall and her normal weight is about 105, and the doctor said, "You're going to have a boy. I can tell by the vigorous way that he is kicking." On the way to the hospital Kay says, "Maybe it will be a girl. What will we call it?" And I said, "Well, I don't know, how about Mary Ann or Mary Jane, just a good old-fashioned name," and then I said, "No, I wouldn't want to call her Mary Ann because we had a cow named Mary Ann on the farm." (Laughter)

So Mary Jane it is. And Mary Jane is just as wonderful as her mother. I guess everybody feels that their children are wonderful and she certainly is.

Q: What does she do now?

Theodore M. Schad

---

A: She started out to be a forester, because she loved those mountain trips in the West and we always had the forest rangers come in and talk. These were big trips with the Colorado Mountain Club or Sierra Club, so she started out at Westhampton College in Richmond, part of the University of Richmond, with the intention of going two years there, followed by three years at Duke in forestry.

Her first summer job, which she got herself, after we told her she would never get a summer job with the Forest Service because there's too much competition, was as a junior forestry aide out in the Six Rivers National Forest in northern California, headquartered at Gasquet near Crescent City. You should know about Crescent City because the Corps built a breakwater there using tetrapods.

She worked there one summer after her freshman year, and when she came home in the fall she decided that that was not what she wanted to do with her life. First, she got a lot of poison ivy even though she'd had shots. She was out there working with tree planting contractors, mostly Mexicans, and if you didn't watch them closely, they would put the little trees in upside-down and they didn't give a damn. They did not like being supervised by a girl. Also, she didn't like working by herself even though she had a wonderful time while she was there. So she decided to change her major to American Studies thinking in terms of working in museums or something like that.

That led her to get a job at HABS [Historic American Buildings Survey] the next summer, after her sophomore year. I never had to help her get a job. She always got her own jobs. She had worked after her high school graduation too, as a secretary at HABS, that's how she started. For her junior and senior years she transferred to the University of Delaware where they have all those museums, the Hagley Museum and Winterthur and others. Delaware had a good course in American Studies partly because of those museums.

This led her into the historic preservation field when she graduated in 1977. She graduated in three and a half years and was a valedictorian. She had a straight 4.0 average, both in high school and in college. She could have gone back to finish out her 4th year with some advanced work and graduated summa cum laude. But she decided to go to work, and she's at the same firm, Oehrlein and Associates, ever since she graduated. They do a lot of historic preservation work. Among their recent work is the repair of the Tomb of the Unknown

**Water Resources People and Issues**

---

Soldiers at Arlington Cemetery. The Corps built that, and it has developed cracks that have to be repaired, so the Corps does have some problems with its construction.

Q: The Corps didn't make the cracks.

A: No, but the Corps designed and built the project, and it's apparently settled causing cracks.

Q: What about your other daughter?

A: The other daughter was born three years later. After Mary Jane was born, Kay didn't go back to work as she had planned. She decided it was more fun to play with the little baby. But after a year or so she went back to work part-time establishing a library for the American Automobile Association (AAA). When our second daughter, Rebecca Christina, was born in 1958, Kay stayed home full-time because by that time we felt that Mary Jane really needed her to be home. Mary Jane was in preschool by that time so Kay gave up her library work and she gave up her writing. Kay also had done some writing. She wrote a book about her mother's childhood. It was written as a children's book. Her mother grew up in Alabama in the 1890s, and when our babies came along, Kay took on the job of raising them as her primary responsibility. She loved being a mother, and I think one reason both daughters turned out so well is that they have a wonderful mother.

Q: What is your second daughter doing?

A: She takes after her father; she loves the outdoors. She went to Warren Wilson College near Asheville, North Carolina, and majored in biology. She spent one semester with the Ocean Research and Education Society, which was two months on a ship doing research on whales and cetaceans in Baja, California. She loved that and she really wanted to go on and do a master's degree in that field at the University of California at Santa Cruz. But when the time came, she also felt she'd had enough school, just as I had when I graduated from Johns Hopkins.

She had done a lot of volunteer work at the Smithsonian when she was in high school, which led her to a job doing research on bats at Barro Colorado Island in the Gatun Lake in the Panama Canal Zone. Barro Colorado Island is an

---

Theodore M. Schad

isolated ecosystem staying the way it was when the Gatun Lake was filled when the Panama Canal was built. There are many different species of bats, mostly fruit bats, living on the island. She worked there for the better part of a year, helping with a research project which has gone on for some years under the direction of the curator of mammals at the Smithsonian. She loved that work. And the job fit her perfectly because she is a night person. They started work at 4, 00 P.M., went out and collected some bats with nets and analyzed them, recording species, size, what they had been eating. I think she even identified a new species. She is an expert on bats.

At the end of a year, she came back and worked at the Animal Welfare League of Arlington. It was very difficult for her because she had to make decisions as to which animals to put down-unwanted dogs and cats-and this hurt her. So when she got a chance to go back to the Barro Colorado Island, she did. She left the animal shelter and went back to the Canal Zone for the Smithsonian for another year.

Since then she has her own business under the name Wildlife Matters. She helps people, homeowners and condominium livers, cope with bats, raccoons, possums, and any of the other wild animals that sometime disrupt suburban life. She puts caps on chimneys to keep out raccoons and all kinds of things like that. It's a small business and she is the sole proprietor, which made it possible for her to take six weeks to go back to Panama to help the Smithsonian with an inventory of the biota on two little islands on the Caribbean side of the upper end of the country of Panama. That's where she is now.

Q: Are either of your daughters married?

A: The elder daughter is married and no children. She was married to a young man and the marriage broke up after nine years, and now she's married again, just since September. Anyway, they've been supportive.

Now going back to my wife, Kay, four years ago she was diagnosed as having a brain tumor. It was operated on and it became obvious that it had developed over a long period of years because it was calcified. Her doctors thought she would be all right, that the cancer was eliminated by the removal of the tumor, and that they didn't even need to do radiation. They probably should have done the radiation because the tumor came back. She had the radiation which kept it under control for a while, and we've had several good years. But eventually

**Water Resources People and Issues**

---

she started to lose her motor control, was losing her ability to walk, and she was losing memory of very common ordinary things. She had another operation 14 months ago to remove the cyst which had developed, but it was in a different form. It was in a more malignant form, and they told me at that point that she was terminally ill.

I didn't really believe it last January, a year ago, when they told me that. We put her in a nursing home where she underwent therapy to teach her to walk again with a walker, with the hope that we could bring her home. She's been there all this time, gradually losing function. They had to stop the therapy because her motor control just could not control her muscles. So we have to just leave her in the nursing home there. We visit her every day, at meal times. Both daughters have been very, very faithful along with me in visiting, so that she usually has two visits every day. We're not even sure now how much she understands. She had not been able to speak since about last June or July, and she had to be fed. My daughter's down there with her now. I missed going today probably for the first time. Yesterday I didn't have to go at noon because someone else was going, but I went in the evening.

When we can't get there, the nurses will feed her, but I just can't give her up. We've been together a long time. It's been 50 years since we started our friendship, and over 44 years of marriage.

**Reflections**

**Q:** Well, you've obviously had a very long and successful career and also a happy marriage and a happy home. In order to try to put things in focus, I always like to ask one last question, and the question is, looking back on this long successful career, do you think there's anything you'd like to change if you could? Is there anything that you look back on with particular regret or something that, if you had it to do all over again, you would do it differently?

**A:** I'm not sure. I think I told you that I was never in a position to plan my career. I walked into the Army Engineer Office and asked them for a job, and they hired me right away. Then I got my offers from the civil service exams, and since then I never really applied for any jobs-except during World War II I had tried to get into the Army Specialist Corps, and also when I found out what a wonderful place San Francisco was, I inquired about the possibility of getting

---

Theodore M. Schad

a job with the Federal Power Commission down there, but I never got to the point of really applying. I was at the Seattle District Office in connection with the flood control on the project I was working on and asked them if they needed anybody. I didn't really want to get into specifications, but they transferred me up there under the wartime rules that gave priority for war-related work.

So I guess I've just gone the way the wind has blown me, but I've had a lot of fun. When you ask if there are anything that I have regrets about, I guess I have to go back to my love of the outdoors. I tried to put it first, but not always successfully. I went every year for 25 years to climb in the West or in Switzerland or in Scotland or Canada. That has been a very important part of my life. I got obsessed with the idea of climbing mountains. I guess it really is an obsession, and so my greatest regret is that I wished I had climbed more mountains when I was still able to.

There were not many times that I missed an opportunity to go climbing but there were some. Climbing was probably more of a challenge for me because of having had polio, which left me with a weak leg, but it was something I could do. I sometimes feel if I had worked more diligently and organized my life better around my work, that I could probably have achieved a lot more. Yet, I think I have put the important things in my life first, which were family relationships and my love of the outdoors and music.

We haven't even discussed my love of opera, and that goes back to high school days when I was naughty and threw some spitballs or something in a music class. My music teacher, Murial Huffman, as penance for whatever I had done, made me give a report on the radio production of an opera. This must have been on a Saturday, long before Texaco took over the Metropolitan Opera broadcasts. The opera was *Tannhauser*. The assignment just turned something on inside me. My family was not really very musical. My mother wanted me to take piano lessons, but I never would. I wanted to spend my spare time outdoors. But when I listened to *Tannhauser*, I was just thrilled by it, and particularly by Wagner. Later when I heard *Die Meistersinger* with Hans Sachs hammering his shoes, I identified it with my grandfather.

I love symphonic music also, particularly the French romantic music. I was first introduced to that by Kay before she became my wife. In the first or second letter she wrote me, she told about how she loved the Franck Symphony

in D Minor, and then I discussed Berlioz, d'Indy, Chausson, and Debussy. I love their kind of music along with Wagnerian and, of course, who doesn't love Verdi and Rossini and Puccini. So I'm very, very emotionally involved with opera.

Q: Yes, I noticed the music on the piano so I guessed as much.

A: Those are remnants of better days, when Kay used to play the piano. It is very hard for me to change anything that Kay left around here. It all happened so suddenly, and I expected her to be back after the operation. I don't play the piano. Both daughters took piano lessons, and they could play reasonably well, but they gave it up and went on into other instruments. My musical interests revolve around symphony concerts and opera.

Getting back to your theme of regrets about things you might have done, I can't help wondering if there were anything that I could have done that would have kept Kay from getting to the stage she is in. Could we have sought help elsewhere, Johns Hopkins or the Mayo Clinic? We did go out to the National Institute of Health, but Kay's condition didn't fit any of their research parameters.

Sometimes I wonder if I should have left the government to seek greater remuneration in the private sector. In 1939 it was the way to go, but then during World War II, for example, the government salaries were kept way below everybody else's salary. But at that time if you had resigned, they said it would be accepted with prejudice. I don't know what that meant, and it probably wouldn't have meant anything if they needed you back. When the government salaries finally started to come up in the '60s, it was long overdue.

One reason Kay and I didn't have children until we were married 10 years was that we couldn't afford to. I was a P-3 when we got married which is the equivalent of about a GS-9, I guess. Kay was working at the library and we could barely make it in Seattle. When we came to Washington it was even worse, and I had gone up a grade. And so that was one reason we were married 10 years before Mary Jane was born. I was old fashioned, I guess, because I couldn't conceive of a family with children where the mother worked outside the home. So it took a long time before we were able to afford to have

Theodore M. Schad

---

children. Kay didn't have to work, but she enjoyed the part-time work for the Triple A which enabled us to have a full-time maid at home.

The things I have enjoyed most have been starting off from scratch with the National Water Commission and the Senate Select Committee, although with the Senate Select Committee I had the benefit of the preliminary work done by Ed Ackerman. I knew enough people and had enough contacts to get all the help I needed on the National Water Commission, and so it's hard for me to think of anything now that leaves me with any regrets, except for the mountains that I didn't climb. I'm sure that I'll think of some things that I wish I had said in this interview. Even though I have been very verbose in this interview, there are a lot of things that I have not covered. But you can't cover everything, and I feel embarrassed that I have been so verbose and that you've taken two full days to do the interview.

Q: It was well worth it. I thank you very much for your time.

---

Kay died on August 14, 1989, shortly after her 72nd birthday. Her book, *Run Eunice*, was published in 1990, and a book of her letters, *They Call Me Kay*, was published in 1994.

Water Resources People and Issues

---

## Abbreviations and Acronyms

|                    |   |
|--------------------|---|
| AWR                | Arkansas-White-Red  |
| BOB                | Bureau of the Budget  |
| BOD                | Biochemical Oxygen Demand                                   |
| CEEB               | College Entrance Examination Board                          |
| CETS               | Commission on Engineering and Technical Systems             |
| CMTC               | Citizens Military Training Corps                            |
| CPSMR              | Commission on Physical Sciences, Mathematics, and Resources |
| c s c              | Civil Service Commission                                    |
| EPA                | Environmental Protection Agency                             |
| FAA                | Federal Aviation Administration                             |
| FIARBC (FIREBRICK) | Federal Inter-Agency River Basin Commission                 |
| FPC                | Federal Power Commission                                    |
| GAO                | General Accounting Office                                   |
| GSA                | General Services Administration                             |
| HABS               | Historic American Buildings Survey                          |
| HECP               | Harbor Entrance Command Posts                               |
| HEDP               | Harbor Entrance Defense Posts                               |
| ICWP               | Interstate Council on Water Policy                          |
| ICWR (ICEWATER)    | Xnter-Agency Committee on Water Resources                   |
| MIT                | Massachusetts Institute of Technology                       |
| MR&T               | Mississippi River & Tributaries Project                     |
| NASA               | National Aeronautics and Space Administration               |
| NAWAPA             | National Water and Power Alliance                           |
| NEPA               | National Environmental Policy Act                           |

**Water Resources People and Issues**

---

|       |  |
|-------|--|
| NRC   | National Resources Committee                                   |
| NRPB  | National Resources Planning Board                              |
| NYA   | National Youth Administration                                  |
| OMVG  | <i>Organization deMise etValeur de<b>la Fleuve, Gambia</b></i> |
| PWA   | Public Works Administration                                    |
| REA   | Rural Electrification Association                              |
| RFF   | Resources for the Future                                       |
| ROTC  | Reserve Officer Training Corps                                 |
| SCS   | Soil Conservation Service                                      |
| TAMS  | Tippetts, Abbet, McCarthy, Stratton                            |
| TVA   | Tennessee Valley Authority                                     |
| USAID | United States Agency for International Development             |
| USED  | United States Engineer Department                              |
| WPA   | Works Progress Administration                                  |
| WSTB  | Water Services and Technology Board                            |
| YMCA  | Young Men's Christian Association                              |

## Index

### -A-

**Abiquiu Project:** 66  
 Ackerman, Adolph: 94, 95, 99, 126-131, 137-139, 141, 177, 223  
 Ackerman, Ed: **85**  
**Ackermann, Bill:** 94, 163, 207  
 Adams, Sherman: 104, 115  
 Advisory Committee on Inter-Governmental Relationships: 14 1  
 Advisory Committee on Water Resources: 106  
 AEC: *See* Atomic Energy Commission  
**Allee, David:** 180, 185  
 American Society of Civil Engineers: 89  
 Ancleron, Clint: 104, 125-127, 138, 143-145, 147, 149  
 Anderson, P. M.: 28, 29  
 Anderson Ranch Dam: 45, 77  
 Angostura Dam: 45  
**Appropriations Committee:** 64, 125, 170, 174, 175  
 Arkansas River Navigation Project: 96  
 Arkansas Waterway: 115  
 Arkansas-White-Red [AWR]: 91, 142, 146, 151  
 Armstrong, Ellis: 113  
 Army Engineer Office: 220  
 Army Specialist Corps: 220  
 Aspinall, Wayne: 144, 153, 167, 168, 196, 198  
 Atomic Energy Commission: 135

### -B-

Babbitt, Bruce: 2 10-2 12  
 Baltimore District: 30, 33, 37, 38, 61, **100**  
 Banks, Harvey: 180, 187, 194, 206  
 Barlow, Raleigh: 142, 143  
 Baxter, **Sam:** 168, 175, 192  
 Bay Ocean Peninsula: 57  
 Bayou Boeuf 97, 116, 121  
 Beach Erosion Board: 56  
 Beard, George: 65, 66, 93

Belle Fourche Project: 69  
 Bennett, Buzz: 9, 59  
 Benson, Ezra Taft: 120, 121, 152  
 Bethlehem Steel Company: 104  
 Big Dam Foolishness: 118  
 Big Summit Prairie: **51**  
 Blakeley, Bob: 173, 176  
 BOB; *See* Bureau of the Budget  
 Boise Project: 77  
 Boke, Richard: 64  
 Bonem, Gilbert: 136  
 Bonneville Power Administration: 171, 189  
 Borland, Whitney: 45  
 Bousquet, Ken: 66, 107, 170, 174  
 Bower, Blair: 161  
 Bowman, Wally: 201, 204, 208  
 Brennan, Joe: 66  
 Bridge Canyon Dam: 70, 166  
**Broussard, Flo:** 180, 181, 191  
 Brown, **Boyd:** 46  
 Brown, Carl: 69, 130  
 Bryant, Dick: 49, 50  
 Bureau of the Budget: 63, 68, 80, 94-97, 99-108, 111-115, 117, 119-124, 126, 144, 164, 166, 167  
 Bureau of the Budget Circular on Water Resources Projects: 94  
 Bureau of Reclamation: 27, 32, 42-47, 53, 60, 62, 64, 65, 68, **69, 71,** 72, 75, 77, 83, 84, 86-88, 91, 93, 96, 98, 100-103, 107, 109-111, 117, 141, 142, 158, 161, 166, 167, 169, 191

### -C-

**Cachuma Project:** 102, 103  
 Canadian Seaway Authority: 113  
 Carpenter, Dick: 200, **201,** 204-206  
 Case, Francis: 125, 128  
 Caulfield, Henry: 93, 118, 148, 149, 151, 152, 212  
 Census Bureau: 134

Water Resources **People** and Issues

- Central Arizona Project: 100, 167, 168  
 CETS: See Commission on Engineering and Technical Systems  
 Chapman, Oscar: 78  
 Chavez, Dennis: 125  
 Chief Historian of the Army: 72  
 Chief Joseph Dam: v, **55**, 75, 76  
 Chiefs of Engineers and Water Resources: 107  
 Church, Frank: 82, 196  
 Citizens Military Training Corps [CMTC]: 21  
 Civil Service Commission: **73**, **169**, 170  
 Civil Works: 96, 99, 107-110, 113, 121, 122, 174  
 Coast Guard: 113, 114, 209  
 Coffin, Tris: 134  
 College Entrance Examination Board: 13  
 Colorado River Basin: 65, 69, 70, 166  
 Colorado River Compact in 1922: 166  
**Colorado** River Storage Project: 70  
 Coloraclo-Big Thompson: 84  
 Columbia River Basin: 79, 92, 111, 167  
 Comber, Thomas: 27, 3 2  
 Commerce Committee: 125  
 Commission on Engineering and Technical Systems: 208  
 Commission on Executive Pay: 171  
 Commission on Natural Resources: 198, 202, 204-207, 2 1 0  
 Commission on Physical Sciences, Mathematics, and Resources: 208, 209  
 Committee on Water Resources: 106, 107, 123, 147, 151, 162  
 Committee Print Number 6: 141  
 Congress: viii, 63, 79, 103, 107-109, 115, 118-121, 124, 152, 153, 168, 172, 186, 196-198, 204, 205. See also specific legislation by name  
 Congressional Research Service: 120  
 Conservation Foundation: 159, 200, 207, 208, 210-213  
 Cook Commission Report: **95**  
 Cook, Howard: 64, 69, 117, 119-121, 129-131, 173, 175, 176, 178, 186, 187, 189  
 Cook, Morris: 79, 94  
 Coolidge **Administration**: 1 12  
 Coordination Act: 61  
 Coordination of Plans Section: 6 1, 68  
 Corps of Engineers: 3, **20**, **27**, 30, 31, 33-38, 40, 53, **54**, 60, 63, 65, 68, 75, 79, 82, 83, 86-88, 91, 93, 95, 96, 99, 106-109, 111, 113, 114, 121, 128-13 0, 142, 146, 148-15 1, 153, 154, 157, 161, 173, 187, 191, 195, 208, 215. See also specific districts and divisions  
 Craine, Lyle: 178, 185, 187, 189  
 Crist, Lena: 180  
 Crooked River Project: 49, 50  
**CSC**: See Civil Service Commission  
**Curran**, Charlie: **96**, **98-100**, 103, 120
- D-**  
 Davidson, Jebbie: 74, 78  
 Debler, E. B. : 47  
 Delaware River Port Authority: 105  
 Department of Agriculture: 61, 62, 121, 130, 141, 175  
 Department of Commerce: 61, 134  
 Department of Health, Education **and** Welfare: 131  
 Department of the Interior: 62, 63, 70, 73, 77, 81, 87, 89, 101, 148, 149, 161, 163  
 Department of Natural Resources: 88, 148-150, 152  
 Department of State: 68  
 Depression: 27, 32, 37  
 Dewsnup, Dick: 180  
 Diluzio, Frank: 168, 175, 183  
 Dinosaur National Monument: 69, 70  
 Dixon, Jack: 65-69, 72, 74, 75, 93  
 DNR: See Department of Natural Resources  
 DOC: See Department of Commerce  
 Dodge, Joe: 113  
**DOI**: See Department of the Interior  
**Dubrow**, Morgan: 73  
 Duckett, Maggie: 127  
 Durenberger, Dave: 2 13  
 Dworshak, Henry: 82  
 Dworsky , Len: 176
- E-**  
 Eaton, Eugene: 144, 162  
 Ebaugh, Franklin: 44  
 Eberle, A. M.: 128  
 Echo Park Dam: 69  
**Edgewood** Arsenal: 40, 41

---

**Theodore M. Schad**

Eisenhower Administration: **8** 1, 97-100, 102, 104-107, 111-113, 119, 124, 139, 140, 149  
 Eisenhower, Dwight: 80-83, 94, 96-100, 102, 104-107, 111-113, 115, 119, 124, 139, 140, 149, 154  
**Ellender**, Allen: 97, 120, 123-125, 128  
 Ellis, Clyde: 113, 169, 175, 192, 193  
 Engineer Division, Baltimore District: 30  
 Engle, Clair: 125, 139  
 Englebert, Ernie: 185  
 Environmental Policy Act: 225  
 Environmental Protection Agency: 187, 198, 205, 207, 210, 215  
 Environmental Section: 6 1  
 Environmental Studies Board: 198, 199, 201-204, 206, 209  
 EPA: See Environmental Protection Agency  
 Eppich, Eleanor: 44  
 Executive Order 9384: 63, 102, 103

**-F-**

FAA: See Federal Aviation **Administration**  
 Fairless, Ben: 105, 106  
 Faison, **Haywood**: 95, 96  
 Falcon Dam: 68  
 Federal Advisory Committee Act: 159  
 Federal Aviation Administration: **38**.  
**Federal** Inter-Agency River Basin Commission [FIARBC]: 60, 127, 146, 151  
 Federal Power Commission: 61, 62, 73, 79, **90, 91**, 149, 221  
 Ferris, Muriel: 133  
 Fish and **Wildlife** Service: 60, 67, 69, 71  
 Flood Control Act: v, 60, 64, 78, 79, 84, 87, 103, 116, 124, 157, 158, 160  
 Flood Control Act of 1944: 60, 160  
 Foley, Tom: 171  
 Food for Victory Program: 52, 84  
 FPC: See Federal Power Commission

**-G-**

GAO: See General Accounting Office  
 Gardner, Warner 36, 76  
 Garrison Dam: 101  
 Garrison Diversion: 66  
 Gee, Herb 20, 128, 185  
 General Accounting Office: 113

General Services Administration: 173  
 Geological Survey: 69, 127, 129-131, 143, 144, 162  
**Geyer**, John: 27, 30, 39  
 Glacier View: 70  
 Glen Canyon Dam: 166  
**Glick**, Phil: 178, 179  
**Goldman**, Charlie: 194  
 Grand Canyon National Park: 70, 166  
 Grand **Coulee** Dam: 27, 32, 75-77  
 Grays Harbor: 5 6, 5 8  
**Green** Book: 66, 92-94, 98, 146, 151  
 Green River: 51, 70  
**Green-Puyallup** Project: 5 1, 52  
 Griffith, Ernest: 120, 126  
 GSA: See General Services Administration

**-H-**

Harbor Entrance **Command** Posts: 53  
 Harbor Entrance Defense Posts: 53  
 Harcling Administration: 112  
 Harrell, Reese: 113  
 Hart, Phil: 125, 139, 179, 185  
 Harvard Water Program: 160, 163  
 Hayden, Carl: 128, 129, 167  
 Hells Canyon Dam: 73, 80  
**Hertzler**, Dick: 64, 121, 122  
 Hesse-Darmstadt, **Germany**: 3  
 HEW: See Department of Health, Education, and Welfare  
 Historic American Buildings Survey: 217  
 Hoisington, Gregory: 20  
 Hoover Commission: 70, 71, 87, 88, 90, 106, 108, 109, 120, 149  
 Hoover Dam: 27  
 Hoover, Herbert: 6  
 Hope-Aiken Act: 117  
 Horn, Steve: 172  
 Hoyt, W. G.: 71, 127, 211  
 Hudson River: 6, 141  
**Hufschmidt**, **Maynard**: 16 1  
 Hughes, Roland: 113  
**Hullabaloo**: 26, 30

**-I-**

**ICEWATER** [ICWR]: See Inter-Agency Committee on Water Resources  
**Ickes**, **Harold**: 63

## Water Resources People and Issues

- ICWP: See Interstate Council on Water Policy  
**Idaho** Power Company: 78-82, 86  
 Ingram, Helen: 185  
**Inland** Waterways Commission: 90, 147  
 Inter-Agency Committee on Water Resources: 107, 147, 151  
 International Boundary and Water Commission: 68  
 International Joint Commission: 120  
 Interstate Conference on Water Problems: 148  
 Interstate Council on Water Policy: 138  
 Itchner, Emerson: 107, 108  
 Izaak Walton League: 159
- J-**  
 Jackson, Henry "Scoop": 125, 163, 167, 168, 171, 172, 186, 192  
 Jibrin, Barbara: 127  
 John Day Project: 78, 112  
 Johns Hopkins University: 12, 19, 3 8  
 Joint Committee on Printing: 128, 129, 189, 190
- K-**  
 Katz, Mike: 189  
 Kean, Thomas: 212  
**Kempton**, Murray: 87  
 Kennedy, John F.: 132, 143, 148, 150, 152, 156, 157, 162, 203  
 Kennedy, Robert: 127  
 Kerr, Bob: 91, 97, 114, 115, 122-129, 132-140, 142, 143, 145-147, 151, 152, **155-157**, 166  
 Kestenbaum Commission: 141  
 Ketchum, Bostwick: 194  
 Kilbourne, Capt. : 20, 21, 26  
 Kirpich, Philip: 38  
 Klingelhofer, Mary Jane [daughter]: 216, 218, 222  
**Knowland**, William F.: 64, 82  
 Koelzer, **Vic**: 178, 179, 187, 188, 194  
 Kortez Dam: 45  
 Krug, Julius: 78  
 Krutilla, George: 56  
 Kuchel, Tom: 125, 172
- L-**  
 Land/Water Conservation Fund Act: 158  
 Land, **Wood and Water**: **133, 134**
- Langbein, Walter: 211  
 Layton, **Cleo**: 73  
 Legal and Social Aspects of Engineering: 25  
 Legislative Council: 144, 145  
 Legislative Reference Service: 119, 120, 126, 143, 153, 155, 162, 164, 165, 169, 200, 201, 205  
**Leopold**, Luna: 143, 162, 211  
 Library of Congress: 99, 107, 118-120, 123, 124, 152-154, 162, 172, 186, 195, 200, 204, 208  
 Lichtig, Bert: 35  
 Linsley, Ray: 168, 169, 175, 179, 193  
**Linton**, Ron: 201  
 Little Summit Prairie: 51  
 Lower Colorado River Project: 166, 167  
**Luce**, Charles: 168-172, 174, 181, 182, 184, 193, 195  
 Lucky Peak Project: 78
- M-**  
**Maass**, **Arthur**: **86-88**, 93, 149, 161  
**MacConaghy**, D. C. : 45-47  
**Maddock**, Thomas: 211  
 Magnuson, Warren: 125  
 Malone, Thomas: 209  
**Mansfield**, Mike: 123, 140  
 Marble Canyon Dam: 70, 166  
 Martin, Thomas: 1, 3, 38, 125  
 Massachusetts Institute of Technology: 13, 27  
 Mathias, Charles: 199  
 McBride, Don: 123, 124, 127, 133  
 McBride, Paul: 127  
 McCarthy hearings : 8 1, 82  
 McClellan, John: 115, 120  
 McClellan-Kerr Waterway: 114  
**McDaugh**, **Fred**: 39  
 McFarland, **Sid**: 170  
 McGee, Gail: 125, 139, 140  
**McNary** Project: 78  
 Merriam, Bob: 97, 121, 123  
 Metzler, Doug: 187  
 Metzler, Dwight: 180, 194  
 Military Air Transport Service: 133  
**Milliken-O'Mahoney** Amendment of 1944: 103  
**Minidoka** Project: 77

Theodore M. Schad

Mississippi River & Tributaries Project: 97,  
116

Missouri River Basin Project: 48, 49

Missouri Valley Authority: 90

MIT: See Massachusetts Institute of  
Technology

Modification of Public Law 566: 117

**Morrill Act**: 142, 143

Morse, Wayne: 79

Moss, Frank: 149

Moss, Ted: 125, 139

**MR&T**. See Mississippi River & Tributaries  
Project

**Muddy Waters**: v, 86, 87

Murphy, Francis: 161, 192, 193

Murray, James: 87, 124, 125

Muskie, Edmund: 132, 155, 156, 204

#### **-N-**

NASA: See National Aeronautics and Space  
Administration

National Academy of Sciences: iii, vi, viii, xii,  
143, 187, 194, 198-205, 207, 213

National Aeronautics and Space  
Administration: 170

National Conservation Commission: 90, 147

National Environmental Policy Act: 197, 201,  
208

National Groundwater Policy Forum: 2 10

National Park Service: 70, 158

National Resources Committee: 25-27

National Resources Planning Board: 25, 26,  
103

National Water and Power Alliance: 182, 213

National Water Commission Act: 167, 168,  
174, 176, 196

National Water Commission: 136, 166-170,  
174, 176, 193, 196-198, 201, 202, 204,  
223

National Waterways Commission: 90

National Youth Administration: 14, 23, 24, 27,  
29

Natural Resources Committee: 25

NAWAPA: See National Water and Power  
Alliance

NEPA: See National Environmental Policy Act

**Neustadt**, Richard: 149

New Richmond Hotel: 54

New York State Power Authority: 112

**Newlands Commission**: 90, 91

Nez **Perce**: 80

Nixon, Richard: 177, 183, 192

NRC: See National Resource Committee

NRPB: See National Resources Planning  
Board

NYA: See National Youth Administration

#### **-O-**

Ochoco National Forest: 51

Ohio River Division: 1 10

Oltman, Roy: 130, 143

Organization de Mise et Valeur de la Fleuve,  
Gambia [**OMVG**]: 212, 214

Oriental Despotism: 85

Osborn, **Fairfield**: 159

Outdoor Writers Association: 159

**Overton**, John: 67

#### **-P-**

**PACKRAT**: 106

Page, John: 47, 48, 62, 63

Palisades Project: 77

Panama Canal: vii, 109, 218, 219

Park Service: 60, 61, 69, 70, 130, 158, 160

Park Service Report: 160

Patapsco Falls: 7, 10, 18

Person, Jack: 110

Peterson, Floyd: 96, 98-101, 109, 118, 181

**Philadelphia** District: 99

Pick, Lewis: 105, 107

Pick-Sloan Plan: 48, 49, 91

Pine Flat Dam: 76, 82, 149

Planning Division: 47, 48, 60

Platte River: 43-45

Portland Harbor: 105

Potomac fever: 60

Presidential Advisory Committee on Water  
Resources: 106

Press, Frank: 207-209

Price, Reginald: 69, 93

Price, Truman: 187

Priest Rapids: 78, 1 12

**Prineville Dam**: 49, 50

Public Health Service: 6 1, 13 1, 135, 145

Public Law 313: 170

Public Works **Administration**: 26

Water Resources People and Issues

---

Public Works and Water Resources, Library of  
Congress: 153  
Public Works Committee: 66, 125, 155, 204  
**Puget Sound**: 53  
PWA: See Public Works Administration

**-Q-**

Quadrennial Commission: 171  
Quartermaster Corps: 41

**-R-**

Rampart Dam: 154  
**Ramspeck Act**: 46, 47, 52  
Rappahannock River: 160  
REA: *See* Rural Electrification Association  
Recreation Act: 157 160-169  
Red River Waterway: 67  
**Reid, George**: 135  
**Reistertown, Maryland**: 7, 8, 11-13, 18, 41, 44  
Report 308: 55, 73, 77, 83, 84, 91, 150  
Reserve Officer Training **Corps**: 20  
Resources and Civil Works Division: 99, 109  
Resources for the Future: 118, 130, 131, 176  
Revelle, Roger: 163  
Rifle Gap Dam: 45, 65  
**Riter, Randy**: 47  
River Basin Commission: 90-92, 141, 179  
River Basin Planning: 142, 145, 150, 151, 212, 213  
Rivers and Harbors Act of 1927: 83  
Rivers and Harbors Act of 1945: 60  
Rivers and Harbors and Flood Control Act of 1958: 116, 124  
Rivers and Harbors Reports Section: 56  
Robert S. Kerr Laboratory: 145  
**Ronco Consulting Corporation**: 211  
Roosevelt, Franklin: 70, 87, 90, 102, 119, 163  
Roosevelt, Teddy: 90, 119  
ROTC: *See* Reserve Officer Training Corps  
Rural Electrification Association: 28, 30, 82

**-S-**

Saint Lawrence Seaway Authority: 111  
Saint Lawrence Seaway Development Corporation: 109, 111-113  
Saint Lawrence Seaway Project: 113  
Salem Church Project: 160  
Santa Barbara **County Project**: 101, 103

Schad, Henry J. [grandfather]: 3  
Schad, Kay [wife]: 50, 59, 60, 126, 133, 162, 195, 210, 215, 216, 218, 219, 221, 222, 223  
Schad, Rebecca Christina [daughter]: 218  
Schad, William Henry [father]: 4  
Schaefer, Jack: 184  
Scheicht, Melvin: 131, 135, 145  
**Scheldt, Emma Margaret [mother]**: 5  
Schlesinger, Walter: 87  
Schley, Julian: 62  
Schwartz, Carl: 99, 109  
Scott, Hugh: 125, 132  
**SCS**: See Soil Conservation Service  
Seattle District: 52, 53, 57, 100, 221  
Seattle Mountaineers: 159, 209  
Seaway Development Corporation: 109, 111-113  
Secretary of Agriculture: 65, 104, 149, 152  
Secretary of the Army: 64, 71, 177, 180  
Secretary of Commerce: 135  
Secretary of War: 60, 149  
Section 308: 83  
Senate Document 97: 94, 107, 147, 150-152, 161  
**Senate Interior and Insular Affairs Committee**: 125  
Senate Resolution 48: 123-125, 139, 140  
Senate Resolution 248: 122  
Senate Resolution 281: 122, 140  
Senate Select Committee on Natural Resources: 123  
Senate Select Committee on Water Resources: 123  
Shore Protection Board: 56  
Short, Dewey: 121  
Simplot: 81  
Sixes Bridge: 199  
Sloan, Glenn: 47-49  
Soil Conservation Service: 63, 65, 68, 69, 91, 115, 116, 130, 191  
Spanish-American War: 4, 6  
Specifications Section: 52-54  
Speth, Gus: 208  
Spillway Design Section: 42, 43, 45  
**Staats, Elmer**: 167  
Starr, John T.: 33, 34, 36-39, 61  
Steele, Harry: 151

Stephenson, Malvina: 133, 134  
 Stever, Guy: 209  
 Stong, Ben: 143, 144  
 Strauss, Louis: 60, 62-65, 67, 69, 71-73, 100,  
 135  
 Sturgis, Sam: 107-109, 112  
 Susquehanna River flood control: 33, 35, 36

**-T-**

Taeuber, Conrad: 134, 135  
 Tennessee Valley Authority: 7, 77, 91, 109,  
 113  
**Tensas** Bayou: 97, 116, 121  
 Teton Dam: 79  
 The **Dalles**: 78, 112  
 Thompson, Ben: 158, 160  
 Thompson, Glen: 72  
 Thompson, Truman: 30  
**Tillamook**: 57  
 Tippetts, Abbet, McCarthy, Stratton: 39  
**Toby** Creek Pressure Conduit and Outlet  
 Works Project: 36, 37  
 Tofani, Joe: 101, 107, 108, 110, 121, 122,  
 173, 174  
 Train, Russell: 168, 175, 177  
 Truman Administration: 65, 70, 97, 104, 105,  
 150, 178  
 Tuttle Creek Project: 85  
 TVA: See Tennessee Valley Authority

**-U-**

U.S. Coast Guard: 113, 114, 209  
 U.S. Engineer Department: 35  
 U.S. **Steel**: 105, 105, 212  
**Udall**, Stewart: 150, 163  
 United States Agency for International  
 Development: viii, 211, 212, 214  
 Upper Colorado River Basin Compact: 69  
**USAID**: See United States Agency for  
 International Development

**-V-**

Vale Project: 77  
 Valley Gravity Project: 67, 68  
 Van Ness, Bill: 171, 172, 200  
**Vanport** Flood: 73, 74  
 Vaux, Henry: 189  
 Vawter, **Wally**: 120

**-W-**

Verona Dam: 199  
 War of Northern Aggression: 3  
 Warne, Bill: 70-73, 93  
 Warner, Charlie: 18, 76, 99-101  
**WASHTUB**: 209  
 Water and Power: 71, 93, 99, 149, 182  
 Water Resources Act: 144  
 Water Resources Committee: 25, 26, 63, 71,  
 127  
 Water Resources Council: **145-15** 1, 16 1, 163,  
 164, 168, 174, 178, 196, 197  
 Water Resources Planning Act: 145, 146, 165  
 Water Resources Policy Commission: 88, 91,

**94**

Water Resources Research Act of 1964: 142  
 Water Resources Research Institute: 143, 144,  
 152  
 Water Services and Technology Board: 209,  
 210  
 Water Supply Act of 1958: 119  
 Water Supply and Demand Study: 130  
 Weber, Eugene: 66, 93, 99, 107, 117, 120,  
 122, 152, 174  
 Weicking, Ernie: 64  
 Weisner, Jerry: 163  
 Wenk, Ed: 162, 164  
 Western Maryland Railroad: 33, 34  
 Wheeler, "Specs\*": 62  
 White, Bob: 209  
 White, Gilbert: 94, 100, 127-129, 138, 139,  
 177, 198, 204, 209  
**Wiecking**, Ernie: 2, 69  
**Wild** and Scenic Rivers Act: 158, 160, 168  
**Wilderness** Act: 159  
**Wilderness** Society: 159  
 Wilhelm, Gene: 170  
**Willamette** River: 105  
 Williams, Gordon: 38  
**Wilm**, Harold: 148  
 Wilson, Walter "Weary": 164  
 windshield survey: 65  
 Wirth, Connie: 70  
**Wollman**, Nathaniel: 130, 131, 135, 136, 143  
**Wolman**, Abel: 24, 26, 27, 30, 39, 63, 127,  
 136, 138, 139, 177  
**Woodward**, Doug: 130, 189  
 Woodwell, George: 194

Water Resources **People** and Issues

---

Works Progress Administration: 26

**World War I:** 6, 84

**World War II:** 5 1, 53, 58, 81, 84, 88, 109,  
169, 177, 220, 222

WPA: See Works Progress Administration

Wright, Mike: 168, 175, 183

WSTB: See Water Services and Technology  
Board

**-Y-**

**Yampa River:** 70

Yeager, Emma Augusta [grandmother]: 4

Youghiogeny River: 160

Young, Bob: 176

Young, Milt: 125

Young Men's Christian Association: 28

**-Z-**

**Zahniser, Howard:** 159

**EP 870-1-61**  
**January 1999**

HQ AR000543-HQ AR000544

Steve Austin - Phil  
dat dang thing.

Strategic Plan

Tasks:

a) Review of Visitor/Ranger Safety Review Report & applicable Corps and other Federal/State regulations

- V/R Safety report & recommendations will be reviewed in concert w/ field comments (see c)
- Ensure recommended changes are not inconsistent with State Law
- Review of other State & Federal regulations: Seek OC assistance and legal review of proposed recommended changes
- ▶ Review impacts to Forfeiture Schedule
- Consider impact of Tribal regulations: Seek OC assistance, Consider ASA(CW) review of Cheyenne River Sioux Tribes request to regulation hunting and fishing and impacts of Supreme Court Bourland v South Dakota decision.

b) Assess overall impact of changing regulation

- Review BLM process for proposed regulations - success/failures
- Get input from field
- Include narrative analysis in draft report

c) Obtain field comments & d) Review sections of T36 & e) Evaluate proposed changes &

f) Develop draft of recommended changes & g) Conduct field review of draft & h) Provide final recommendations to HQ

- 23 Jul 97 TF provide draft memo to HQ
- 14 Aug 97 HQ send memo to Field w/ "heads-up" E-mail
- 20 Nov 97 Consolidated field comments returned to CESAS-OP-S, Attn. Parsley
- 05 Dec 97 TF meet to review field input, analyze pros/cons, prepare draft recommendations (See attached matrix)
- 15 Dec 97 Prospect Instructor Review & Input
- 15 Dec 97 IPR via teleconference w/ HQ
- 20 Jan 97 TF provide draft recommendations to HQ
- 01 Feb 97 HQ transmit draft changes to field
- 15 Mar 97 Consolidated field comments of draft recommendations returned to CESAS-OP-S
- 01 Apr 97 TF meet to review field comments of draft
- 15 Apr 97 TF submit final product to steering committee; Briefing by request

I) Assist with actions relative to public review in Federal Register

- ▶ Federal Register Submittal Process will be accomplished by HQ staff with assistance

TOTAL P.03

from HQ as requested

- TBD Dependent on number and type of comments; TF can assist in preparing comments/response for publication in Federal Register
- ▶ Target for Publication in Federal Register 30 Sep 97

j) Assist HQ in development of implementation policy

- TBD: TF assist HQ as requested
- Considerations: Memo to field of changes with Commander Emphasis; Preparation of Revised EP and printing/distribution of EP; Changes to ER 1130-2-550; Prepare T-36 Power Point or Harvard Graphics version for Prospect & field use in training; Prepare poster of T-36 for posting; Coordinate with local magistrates on forfeiture schedule

HQ AR000545-HQ AR000545

ATTACHMENT 2

MFR

SUBJECT: Title 36 Task Force In-Progress-Review Teleconference (15 December 1997)

ATTENDANCE: Lewis, Tabb, Trent, Austin; Parsley, O'Bryan, LaRue

DISCUSSION:

1. The T-36 Task Force met during first week in December to review the 80+ pages of field comments. Mike Ensich and several rangers also attended the meeting.
2. Task Force (TF) is preparing a matrix to help capture the comments, identify the recommendations (w/ pros and cons) along with suggested new language of all proposed changes. TF has identified a number of reasons to modify T-36 (be consistent with other CFR changes, new fees, SOS changes, new fines, etc.). - Public Comment
3. Task Force will get VA Instructor, Reservation/Special Use TF, and HQ input prior to sending the proposed changes (via e-mail) to MSC/districts for final comment. The WEB will not be used. HQ will also prepare info articles in the NRM monthly update, and RecNotes.
4. Task Force will propose an "update" to T-36 which should not require having to go through the Federal Register process. TF will reflag those changes that are "borderline" which could trigger a Fed Register review. (Follow up comment from Wahus: HQ council (not OMB) will determine if we must go thru the Fed Register).
5. Will get "professional" input regarding color/design/graphic treatment of the new brochure (Wahus will provide the T-36 Poster graphic work that Meeker and Associates did in the early 1990's). Printing dollars will have to be identified for FY 98.
6. The following TF Charter milestones are achievable and remain unchanged:
 

|           |   |
|-----------|---|
| 20 Jan 98 | TF provide draft recommendations to HQ w/cover memo |
| 1 Feb 98  | HQ transmit proposed changes to field               |
| 15 Mar 98 | Consolidated field comments due to CESAS-OP-S       |
| 1 Apr 98  | TF meet to review comments                          |
| 15 Apr 98 | TF submit final product to VA Steering Committee    |
7. A follow-up teleconference in early January will be conducted to discuss the controversial issues.
8. Note: Task Force members have done an excellent job to date in meeting the requirement's of their charter.

Steve Austin  
17 Dec 1997

HQ AR000546-HQ AR000583

D  
Kaplan TT

AVSM

**23 JULY 1997 MEETING AGENDA**  
**TITLE 36 TASK FORCE**

- **Welcome**

- **Introductions**

- **Logistics**

- Conference Room # 1225 Wednesday & Thursday
- Conference Room # 7123c Thursday & Friday
- CECW-ON (Room 6223) available for independent work
- Lap Tops, Easel/paper, etc.

- **Agenda**

- Wednesday -- Initial Meeting with HQ
- Wed/Thurs -- Review Charter - Develop Strategy (w/o HQ)
- Friday -- Brief HQ on Strategy / Milestones

- **Title 36 Task Force Charter** **Tab 1**
  - **Background**
    - Visitor & Ranger Safety Review Initiative
    - Visitor & Ranger Safety Review Report (Oct 1995)  
54 recommendations  
"Revise Title 36" (page III 31-33; page V 6.) **Tab 2**
  - Task Force General Requirement  
*Conduct full review and provide recommendation for DCW consideration/action*
  - Specific Tasks (see TF Charter, paragraph 3)  
Recommend changes to ENG 4381 (Warning Citation) **Tab 3**
  - Milestones (see TF Charter, paragraph 4)
  - Product (see TF Charter, paragraph 5)
  - Chair Responsibilities (see TF Charter, paragraph 6)
  - Funding

- **Title 36 Task Force Charter** **Tab 1**
  - Background
    - Visitor & Ranger Safety Review Initiative
    - Visitor & Ranger Safety Review Report (Oct 1995)  
54 recommendations  
"Revise Title 36" (page III 31-33; page V 6.) **Tab 2**
  - Task Force General Requirement
    - Conduct full review and provide recommendation for DCW consideration/action*
  - Specific Tasks (see TF Charter, paragraph 3)
    - Recommend changes to ENG 4381 (Warning Citation) **Tab 3**
  - Milestones (see TF Charter, paragraph 4)
  - Product (see TF Charter, paragraph 5)
  - Chair Responsibilities (see TF Charter, paragraph 6)
  - Funding



- **HQ Instructions / Charge**

- Formidable task
- Last revision - 1986
- Climate has changed - job has change
- Does T-36 need changing to keep up with the times?
- Consider pros and cons of all options - don't change for change sake
- Base it on resource protection in addition to Visitor/Ranger safety
- Consider the risk of going through the Federal Register process

- **Other Sources / Surveys**

- Visitor and Safety Review Report, Appendix I (October 1995) **Tab 4**
- Visitor Assistance Survey (June 1996) **Tab 5**
- Division/District T-36 Comments (1992) **Tab 6**
- Miscellaneous Letters, memos, etc. **Tab 7**  
**and files**
- 1982 & 86 Revision Process **files**

- **Discussion**



From: David Wahus <david.wahus@ios.doi.gov>  
To: CIVIL\_WORKS.GODOT\_POST(TABB,LEWIS),Pulaski.SMTP("s...  
Date: 6/27/97 1:08pm  
Subject: Suggested Comments for Title 36 Task Force

These are a few of the things I would bring to the attention of the task force if I were at their first meeting.

The T-36 task force is to provide a recommendation to the Visitor/Ranger Safety Steering Committee (Darrell is the Chair), not to the Director of Civil Works, not to the Commander.

Take a look at T-36, the new ERs and EPs and obtain input on proposed changes from the field.

ERs and EPs cannot be in conflict with T-36 and visa versa.

Any proposed changes may be categorized in a matrix such as:

Proposed    Cosmetic    Corrects fatal    Safety issue    Local issue change    flaw/error

Changes to T-36 should not be made to correct or take care of local issues.

Remember, T-36 is and must continue to be written to support the rangers and managers, not restrict them unless there is very strong justification to do so.

T-36 should not be used as a substitute for making changes to other regulations that are out dated or need change.

Must evaluate each proposed change to T-36 to determine the pros and cons and to identify what will happen if that change is not made.

We all have personal bias, but you must work above yours. If you do not believe that you can put yours aside and conduct an objective evaluation, say so now.

An essential part of your recommendation(s) must include the exact wording changes that would be made as a result of the adoption of your recommendation. Use of the highlight/strikeout option in WordPerfect or other similar technique should be considered.

One of the strengths of T-36 is that it has not and does not change very often. Therefore, you must resist recommending change for the sake of change. Each and every change must be well justified.

The request for comments from the field must come from HQUSACE. You draft the memo. All comments can be directed to be sent directly to whom ever you suggest. Maybe to Phil.

Before you adjourn this first meeting of the task force, you must develop a schedule and strategy on how you plan to carry out the charter you have been given. And then brief the Visitor/Ranger Safety Steering Committee on your plans before you depart for your respective home duty stations to start the implementation of that plan. The schedule

*Your E-mail to Darrell*

*Field wk:  
Schedule  
Strategy  
Brief Committee  
IPRs  
Final Product  
HQ AR000552*

and strategy should be in some detail. Include when and how you plan to give the steering committee periodic IPRs. These can be done via teleconference if you wish to do so.

If you have any questions about the above, give me a call.

*DirBe TR*

**TITLE 36 REVIEW TASK FORCE CHARTER**

1. **BACKGROUND.** On 4 November 1994, Acting Assistant Secretary of the Army for Civil Works, concurred with a plan to conduct a thorough review of visitor and ranger safety on U.S. Army Corps of Engineers natural resource projects. To facilitate this review, a nine-member task force (Task Force) was assigned the responsibility to perform the following tasks: (1) Identify major safety issues (2) Identify options and solutions to alleviate problems identified (3) Evaluate options and solutions (4) develop recommendations (5) assist in developing policy, and (6) assist in monitoring and adjusting program after implementation of new policy. The Task Force Report (Visitor and Ranger Safety Review) was submitted in October 1995 and contained 54 recommendations including the following:

"Revise Title 36 "

2. **TASK FORCE.** A special task force is being charged to conduct a full review the above statement and to provide a recommendation for CECW consideration/action. The Task Force will be called hereafter "Title 36 Review Task Force."

3. **TASKS.** Task Force members will accomplish the following specific actions:

a. Review the Visitor/Ranger Safety Review Report and existing Corps and other Federal/state regulations and guidance relative to 36 CFR Section III, Chapter 327, Title 36.

b. Assess the overall impact of regulation changes in today's political climate.

c. Obtain field comments to current Title 36 via field survey or other means.

d. Review all sections of the current Title 36 publication, except 327.30, Lakeshore Management and reexamine issues identified in 1991.

1. Examine each section and identify those sections that need addressing in relation to today's climate within the auspices of ranger role in Visitor Assistance.

2. Identify the ranger and visitor safety issues that can be addressed within Title 36 as identified in the Ranger/Visitor Safety Task Force

e. Evaluate all proposed changes, (including no action to change Title 36), documenting the pros and cons of each proposal.

f. Develop draft of recommend changes to the existing publication to CECW-ON, with the exception of 327.30 Lakeshore Management.

g. Conduct a field review and incorporate appropriate field comments regarding suggested revisions.

h. Provide the Visitor and Ranger Safety Steering Committee with final recommendations and a full analysis and any resulting recommendations that address changes within the scope of Ranger and Visitor Safety.

i. Assist with actions relative to a public review in the Federal Register.

j. Assist HQUSACE Natural Resource Branch in the development of implementing policy.

**4. MILESTONES.** The following schedule of tasks, actions, responsibilities, and milestones will be adhered to in the review and development process by the Title 36 Task Force. The Task Force will not deviate from this schedule without prior approval of the Visitor and Ranger Safety Steering Committee.

| <u>TASK</u>                                     | <u>SUSPENSE</u> |
|---|-----------------|
| a. Commence Task Force Work                     | 1 Aug 97        |
| b. Provide <del>ICR</del> to Steering Committee | 1 Nov 97        |
| c. Submit draft changes to all field personnel  | 1 Feb 97        |
| c. Submit Final Product to Steering Committee   | 1 Apr 97        |

IPR

**5. PRODUCT.** The Task Force will produce a final, written report that:

a. Identifies sections that need to be changed, added to, or deleted. Identify new sections if needed.

b. Identifies and evaluates all options and changes.

c. Presents the pros and cons associated with each recommendation.

d. Summarizes the analysis conducted, draws conclusions and makes a specific recommendation (with alternatives, if appropriate) for the consideration of the Steering Committee.

e. Provides final language suitable for public review in the Federal Register.

**6. TASK FORCE CHAIR.** Chairperson will guide Task Force efforts from initial scoping through implementation and monitoring of the final process. Chairperson will:

- Assign tasks, direct and monitor Task Force progress to assure effort is meeting milestones.

- Assure adequate logistical support for Task Force is provided. This includes scheduling of meetings and coordinating of travel arrangements.

- Maintain communications between the Task Force and CECW-ON to assure efforts remain consistent with the concept established by the Steering Committee.

7. **FUNDING.** Salary, travel and per diem costs are the responsibility of the organization of the individual Task Force members. All other costs associated with the Title 36 Review Task Force will be paid by CECW-ON or others.



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers  
WASHINGTON, D.C. 20314-1000

REPLY TO  
ATTENTION OF:

S: 3 Jul 1997

CECW-ON

MEMORANDUM FOR COMMANDER, SOUTH ATLANTIC DIVISION

SUBJECT: Title 36 Review Task Force

1. In order to continue the Visitor/Ranger Safety Review Initiative, as directed by the Assistant Secretary of the Army (Civil Works), I request that Mr. Phil Parsley, CESAS-OP-SR, chair the Title 36 Review Task Force with responsibilities identified in the enclosed charter.
2. Please respond in writing to this request by 25 April 1997. The point of contact for this action in Headquarters, U.S. Army Corps of Engineers is Mr. Steve Austin, CECW-ON, 202-761-1796.

FOR THE COMMANDER:

Encl

RUSSELL L. FUHRMAN  
Major General, USA  
Director of Civil Works

HQ AR000557

CESAD-ET-CO-N (CECW-ON/24 April 1997) (1130-2-320b) 1st End Davis  
404-331-6807

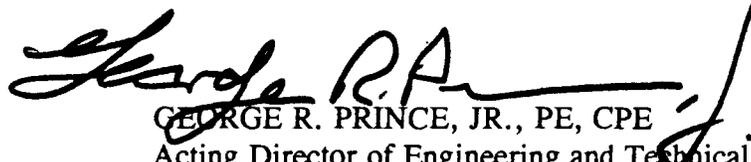
SUBJECT: Title 36 Review Task Force

Commander, South Atlantic Division, U.S. Army Corps of Engineers, Room 322,  
77 Forsyth Street, SW., Atlanta, GA 30303-3490  
7 May 1997

FOR COMMANDER, USACE, ATTN: CECW-ON

1. Mr. Parsley is available to serve as chair of the subject task force, per your request. I fully support his participation in this very important review initiative.
2. The South Atlantic Division point of contact in this matter is Jonathan Davis, CESAD-ET-CO-N, 404-331-6807.

FOR THE COMMANDER:

  
GEORGE R. PRINCE, JR., PE, CPE  
Acting Director of Engineering and Technical Services

CF:  
CESAS-OP



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers  
WASHINGTON, D. C. 20314-1000

REPLY TO  
ATTENTION OF:

S: 10 Jul 1997

CECW-ON

MEMORANDUM FOR COMMANDER, NORTHWESTERN DIVISION

SUBJECT: Title 36 Review Task Force

1. In order to continue the Visitor/Ranger Safety Review Initiative, as directed by the Assistant Secretary of the Army (Civil Works), I request that Ms. Peg O'Bryan, Missouri River Region, be a member of the Title 36 Review Task Force with responsibilities identified in the enclosed charter.
2. Please respond in writing to this request by 10 July 1997. The point of contact for this action in Headquarters, U.S. Army Corps of Engineers is Mr. Steve Austin, CECW-ON, 202-761-1796.

FOR THE COMMANDER:

Encl

RUSSELL L. FUHRMAN  
Major General, USA  
Director of Civil Works

HQ AR000559



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
NORTHWESTERN DIVISION, CORPS OF ENGINEERS  
12565 WEST CENTER ROAD  
OMAHA, NEBRASKA 68144-3869

**16 JUL 1997**

CEMRD-ET-C

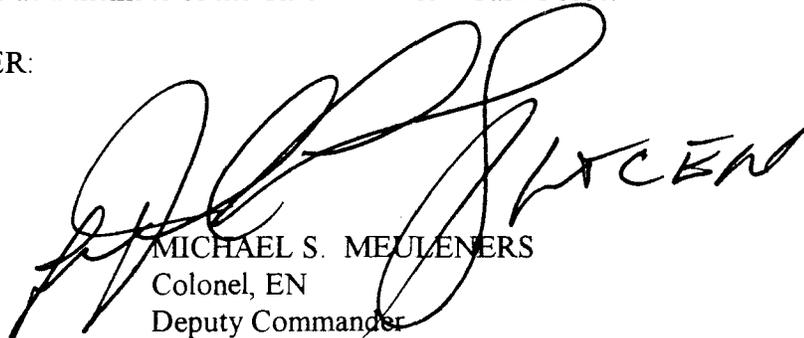
MEMORANDUM FOR CDR USACE, ATTN: CECW-ON, WASH DC 20314-1000

SUBJECT: Title 35 Review Task Force

1. Reference your memorandum, 1 July 1997, SAB (copy enclosed).
2. Peg O'Bryan will serve as a member of the Title 36 Review Task Force.

FOR THE COMMANDER:

Encl  
as

A large, stylized handwritten signature in black ink, appearing to read "MEULENERS".

MICHAEL S. MEULENERS  
Colonel, EN  
Deputy Commander

HQ AR000560



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers  
WASHINGTON, D.C. 20314-1000

REPLY TO  
ATTENTION OF:

S: 10 Jul 1997

CECW-ON

MEMORANDUM FOR COMMANDER, SOUTHWESTERN DIVISION

SUBJECT: Title 36 Review Task Force

1. In order to continue the Visitor/Ranger Safety Review Initiative, as directed by the Assistant Secretary of the Army (Civil Works), I request that Mr. David LaRue, Sam Rayburn Reservoir, be a member of the Title 36 Review Task Force with responsibilities identified in the enclosed charter.

2. Please respond in writing to this request by 10 July 1997. The point of contact for this action in Headquarters, U.S. Army Corps of Engineers is Mr. Steve Austin, CECW-ON, 202-761-1796.

FOR THE COMMANDER:

Encl

RUSSELL L. FUHRMAN  
Major General, USA  
Director of Civil Works

HQ AR000561

- ▶ Develop an agreement with the local magistrate for court ordered restitution with juvenile violators in circumstances where there is reluctance to prosecute juveniles.

Resources:

Costs: There would be an increase in funding requirements for contracting for bench warrants. Average cost per hour for LECA is \$21.50. Time for serving bench warrants would range from 1-2 hours.

FTE: No Change.

## 6. Title 36

Issue Statement: Title 36 needs to be updated to adequately provide for the protection of visitors, rangers and resources.

Discussion: In recent years, there has been interest among Corps field rangers for a revision of Title 36. The last revision of Title 36 was May 1986. Revision goals should include:

- ▶ Increase protection and safety for visitors to water resource projects.
- ▶ Increase protection of private property incidental to recreational visits.
- ▶ Improve ranger safety and provide sufficient authority to execute the Corps enforcement mission.
- ▶ Ensure resource protection.
- ▶ Update sections of the regulation for consistency with state law.

Approximately 75 percent of the participants at the Visitor/Ranger Safety Conference indicated that increased law enforcement authority was needed. None of the participants supported reducing the present authority. Eighty-three percent (83%) of the attendees felt that Title 36 should be consistent with state law. Many expressed concerns over recent changes in various State laws concerning concealed weapons. Drugs and alcohol were listed as one of the top sixteen issues facing Corps rangers. There was considerable discussion and concern that Title 36 did not adequately deal with the increasing use and presence of drugs and alcohol on Corps projects. Strengthening Title 36 would provide rangers with more authority to respond to

various problems routinely encountered.

The NRM Survey showed a great concern for regulation of alcohol. The survey report states, "The use of alcohol and drugs was seen as a major contributor to verbal/physical assaults against both rangers and visitors". Furthermore, over 70% of all respondents agreed that alcohol should be more heavily regulated at Corps projects. Currently alcohol use is not specifically addressed in Title 36. Alcohol restrictions are currently regulated under 327.12a, Restrictions.

As early as 1982, the Summary Report on Visitor Safety and Security at Corps of Engineers Projects (WES Technical Report R-82-1) recognized that the Corps was not meeting minimal visitor protection requirements and recommended that the Corps embark on a multiple-strategy approach to improving this situation. One of the strategies recommended was a revision of Title 36. The report states,

"As the primary intent of the Title 36 focuses on the protection of government property, the Corps should consider broadening the scope of its regulatory authority to include a wider range of visitor protection issues."

Furthermore, the Summary Report indicates that disturbing the peace, theft, and vandalism was listed most frequently as the crime encountered by visitors. In addition, the visitor survey reported 30% of the visitors indicated that the rules should be more strictly enforced; 62% thought that enforcement should remain unchanged; and that only 2% of those surveyed thought the rules should be less strictly enforced.

In 1991, HQUSACE solicited field input for revising Title 36. However, Title 36 was not updated. The Review Committee reviewed some of the comments submitted from the field and other federal land management agency regulations. A list of recommendations for revising Title 36 that would improve ranger safety, as well as visitor and resource protection is found in Appendix I.

Comments from SWD indicate that fines and imprisonment sentences for Title 36 offenses were raised on 6 November 1991. They cite 18 USC, Section 19. This information needs to be researched from Office of Counsel. Preliminary research by the Review Committee on this subject indicates that magistrates can now assess punishment for Federal Petty Offenses of six months imprisonment and/or up to \$5,000. Title 36 CFR Engineering Pamphlet should reflect this change. In addition, Office of

Counsel should coordinate with Department of Justice to adjust forfeiture collateral schedules, accordingly.

Potential Solutions:

- ▶ Revise Title 36 through the normal HQUSACE revision process.
- ▶ HQUSACE task a District to solicit field input and consolidate all proposed changes, work the revisions through the Federal Register process, ensure printing of the Engineering Pamphlet, and develop reproducible plates for sign purposes.
- ▶ Contract to revise Title 36.
- ▶ Task Office of Counsel to coordinate with DOJ for adjustments in forfeiture collateral schedules in accordance with 18 USC, Section 19.

Resources:

Costs: There would be an increase in funding requirements for printing and sign changes.

FTE: There would be no increase in FTE, however, time would be devoted to the update process.

**7. Organization/Structure:** The structure and organization of the Corps of Engineers, in regard to natural resources and recreation management, is such that it is not providing in-house visitor safety and protection services at a level that is provided by other federal and state land managing agencies. There is a perception in the NRM element that senior leaders in the Corps would like to "Get the Corps out of recreation." Approximately fifty percent of the recreation areas on Corps projects is leased to another agency for management. The 1990 Recreation Study looked at avenues of state-wide operation of Corps recreation areas. State agencies have been reluctant to take on this responsibility. The current efforts in the Recreation Partnership Initiative encourages private sector development and operation of new recreation areas. The Corps is continually looking at alternative ways to providing recreation opportunities while reducing the Corps operation and maintenance funding requirements.

Of the top sixteen issues identified at the Visitor/Ranger Safety Conference, the commitment to ranger safety was prioritized as number three and the lack of organizational

Table 5-2

| REVIEW COMMITTEE RECOMMENDATION   | CATEGORY |
|---|----------|
| Revise Title 36.  | 2, 4     |
| Provide a clear vision statement for the Corps role in recreation and develop goals, objectives and policies consistent with this vision.         | 2        |
| Ensure compliance and consistent implementation of policy by providing oversight and quality assurance at all levels.                             | 1        |
| Include visitor and ranger safety performance measurements in the CMR and TAPES.  | 2        |
| Support the establishment of a "Corps Ranger Association".  | 2        |
| Encourage participation in the Park Law Enforcement Association.  | 1        |
| Provide resources for training and exchange of information on design and operations and management techniques.                                    | 1        |
| Establish special funding or modify budget guidance to ensure funding of design changes for public safety.  | 2        |
| Utilize an interdisciplinary team approach with field input to park design.   | 1        |
| Place Command emphasis on design and operations and to track progress via performance measurement systems, peer review and Command inspections.   | 1        |
| Establish area carrying capacities and control access when capacities are reached.  | 1        |
| Close unattended day-use areas at night.  | 1        |
| Mandate project wide assessments to determine the need for alcohol bans.  | 2        |
| Prohibit the possession of alcohol at selected areas where there are visitor and ranger safety problems that can be attributed to alcohol misuse. | 1        |

**SUGGESTION EVALUATION**

For use of this form, see AR 5-17; the proponent agency is OCSA.

TO: (Include ZIP Code)  
CERM-M

FROM: (Include ZIP Code)  
CROWSON

1. SUGGESTION TITLE  
WARNING CITATION

2. SUGGESTION NUMBER  
CEMK970008

3. ACTION TAKEN OR RECOMMENDED

- a. APPROVED FOR ADOPTION  TOTALLY  PARTIALLY OR WITH MODIFICATION (Explain in Item 4.)  
 DATE SUGGESTION WAS OR WILL BE PUT INTO EFFECT:  ALSO RECOMMEND CONSIDERATION FOR WIDER APPLICATION AS INDICATED IN ITEM 4.  
 On or before 1 Jan 98.
- b. ALREADY IN USE OR UNDER CONSIDERATION. (Explain in Item 4, indicating whether this suggestion contributed to the action in any way.)
- c. NOT APPROVED FOR ADOPTION FOR REASONS SHOWN IN ITEM 4.
- d. RECOMMEND ADOPTION, BUT APPROVAL NOT WITHIN JURISDICTION OF THIS OFFICE. (Explain in Item 4.)
- e. OTHER (Specify in Item 4.)

4. REASONS FOR ACTION TAKEN OR RECOMMENDED. Include a statement as to how the suggestion was or will be implemented if it is adopted. (If more space is needed, continue on reverse.)

This suggestion has merit and is partially adopted with modification. The suggested revisions to ENG Form 4381, Warning Citation, meet all current Natural Resources Management System Visitor Assistance data base reporting requirements. The revised form will provide for greater reporting consistency which will improve reliability of the data.

A task force has been chartered to review and recommend changes to 36 CFR, Section III, Chapter 327 (Title 36). Part of the review process will include proposed changes to ENG Form 4381 which is directly related to Title 36. This suggestion will be furnished to the task force for their consideration. It is anticipated that many of the specific recommendations within the suggestion will be adopted.

5. BENEFITS (Complete for all suggestions adopted or recommended for adoption.)

a.  TANGIBLE (Show actual or estimated dollar savings, including the cost of conversion and first year savings.)

| (1) FACTORS           | LABOR             |                  |            | MATERIEL        |               |            | TOTAL COST OF LABOR AND MATERIEL |
|-----------------------|-------------------|------------------|------------|-----------------|---------------|------------|----------------------------------|
|                       | MANHOURS INVOLVED | COST PER MANHOUR | TOTAL COST | NUMBER OF UNITS | COST PER UNIT | TOTAL COST |                                  |
| FORMER METHOD         |                   |                  |            |                 |               |            |                                  |
| NEW METHOD            |                   |                  |            |                 |               |            |                                  |
| TOTAL DOLLAR BENEFITS |                   |                  |            |                 |               |            |                                  |

(2) COST OF CONVERTING TO NEW METHOD:  
 LABOR \$ \_\_\_\_\_  
 MATERIEL \$ \_\_\_\_\_  
 TOTAL \$ \_\_\_\_\_  ACTUAL  ESTIMATED

(3) TOTAL FIRST YEAR NET DOLLAR BENEFITS (Labor and materiel savings less cost of conversion.)  
 \$ \_\_\_\_\_ - \$ \_\_\_\_\_ = \$ \_\_\_\_\_

b.  INTANGIBLE (Describe effect on operations, health, safety, welfare, or morale; and number of people and specific organizations affected. Based on criteria in paragraph 2-8, AR 672-20, indicate the value of the benefit and the extent of application.)

(1) VALUE OF BENEFIT IS:  
 MODERATE  SUBSTANTIAL  HIGH  EXCEPTIONAL

(2) EXTENT OF APPLICATION:  
 LIMITED  BROAD  EXTENDED  GENERAL

(3) EXPLAIN THE FACTORS SELECTED IN (1) AND (2). INDICATE AMOUNT OF AWARD RECOMMENDED FOR INTANGIBLE BENEFITS.  
 \$400 -- with modification, the suggestion has moderate value covering the Corps-wide Visitor Assistance Program.

DATE  
09 MAY 1997

7. NAME, TITLE & TELEPHONE EXTENSION OF EVALUATOR  
 STEPHEN B. AUSTIN/1796  
 Outdoor Recreation Planner

8. SIGNATURE & TITLE OF RESPONSIBLE OFFICIAL  
 CHARLES M. FESS  
 Chief, Operations, Construction & Read. Div.  
 Directorate of Civil Works

11/16/15

**Appendix I**

**Recommended Changes to Title 36**

**September 1995**

**Visitor and Ranger Safety Review Committee**

APPENDIX I

Recommended Changes to Title 36  
Visitor and Ranger Review Committee

Paragraph 327.1(g) - Add statement, "Furthermore, individuals responsible for separate and distinguishable acts prohibited in this regulation may be cited for each act, regardless of its time frame to another like or similar prohibited act.

Paragraph 327.1 - Add section (i) to read, Corps personnel authorized by the District Engineer may stop and/or temporarily detain individuals for the purpose of identifying them, determining their compliance with regulations in this Part 327, and for issuing appropriate warnings, citations, and lawful orders.

Paragraph 327.2(b) - Include words, "skateboards", "roller skates", "roller blades", to the list of items covered under this section.

Paragraph 327.2 - Add section (h) to read, The operation of a vehicle on project lands without the proper and valid Federal, or state licensing is prohibited except as designated by the District Engineers."

Paragraph 327.2(b) and (e) - Remove the word "project" from the sentence and replace with "any/all property", as shown in Vessels Section 327.3(d)

Paragraph 327.3(a) - Add "Authorized Corps enforcement personnel may at any time stop or board vessels, and to inspect such vessels to determine compliance with regulations pertaining to safety equipment and operation".

Paragraph 327.3(a) - Add the word, "personal water craft" after jet skis in sentence.

Paragraph 327.3(e) - Add the sentence, "Vessels found not operating in compliance with this section may be required to remove the vessel immediately from project waters.

Paragraph 327.7(c) - Delete reference to overnight occupancy. Change to read, "The unauthorized placement of camping equipment or other personal items on a campsite and/or personal intermittent appearances at a campsite for the purpose of reserving a designated site is prohibited".

Paragraph 327.9 - Add the following paragraph to simplify enforcement. "For the purpose of this part 327, the owner of any garbage, trash, rubbish, debris, dead animals or litter of any kind shall be presumed to be responsible for proper disposal. Such presumption will be sufficient to issue a citation for violation of applicable regulations."

Paragraph 327.11 (c) Insert the words "wild animals" after the word "allow" in the sentence. This is needed to deter individuals from bringing caged or leashed wild animals into recreation areas.

Paragraph 327.13 - Delete the term "loaded" from "loaded firearms" and "loaded projectile firing devices". This change should make the issue of firearms a bit more clear and will not place the ranger in a situations requiring them to interact with a potentially dangerous individual carrying a gun.

Paragraph 327.13 - Generally this section should be separated into parts to allow for proper forfeiture collateral application based on the severity of the act as follows:

Section (a) - The possession of.....

Section (b) - The discharging of.....

Section (c) - The possession of/use of fireworks and explosives...

Paragraph 327.13 - Add exception to include allowances for concealed weapons in accordance with state laws and permitting processes.

Paragraph 327.14 - Add the terms "paleontological remains" and "wildlife resources" to the list of public property items described.

Paragraph 327.14 - Change wording to "Public and Private Property". Include the following as 327.14(d), "Vandalism, defacement, destruction, or removal without the owners permission of private property within a recreation area is prohibited.

Paragraph 327.15 - Add the wording "Any personal property involved with unauthorized activities as defined in this regulation shall be subject to summary removal and/or impoundment. Personal property involved in unauthorized activities may be impounded for the purpose of guaranteeing public safety, resource protection, and/or providing evidence for prosecuting a citation. Personal property may be returned to owners upon leaving project lands or upon disposition of any citation by the courts".

Paragraph 327.24 - Add the term "date of birth, and "phone number" to the list of items required to be provided by violator.

Paragraph 327.24 - Add Section (c) as follows: It shall be unlawful to interfere with, oppose, or impede the activities or operations of a contractor carrying out official contract responsibilities for the U. S. Army Corps of Engineers.

Establish Section 327.27, "Alcohol Beverages" to include the following:

Section (a) - The possession or use of an alcoholic beverage

is permitted except at any area/project, or portions there of, so designated by the District Engineer. Operators of vehicles and vessels having alcoholic beverages located within them and being operated or parked within a alcohol free area will be presumed to be the owner of the beverage for the purpose of issuing a citation.

Section (b) - The possession or use of an alcoholic beverage by a minor, as established by state law, is prohibited. The sale or gift of an alcoholic beverage to a minor is prohibited on project lands. Adults accompanying minors who are in possession of alcoholic beverages are considered to be responsible for supplying the minor for the purpose of issuing a citation under this section".

|                                  |                                   |
|----------------------------------|-----------------------------------|
| 25.88%; 324 Extremely Important  | 3.75%; 47 Only a little Important |
| 45.21%; 566 Very Important       | 0.40%; 5 Not Important            |
| 24.76%; 310 Moderately Important |                                   |

Statistics: Forms 1267; Mean 2.08; Std Dev 0.83

Q15: Public Relations

Frequencies (Percents; Counts):

|                                 |                                  |
|---------------------------------|----------------------------------|
| 66.08%; 830 Extremely Important | 0.40%; 5 Only a little Important |
| 28.98%; 364 Very Important      | 0.08%; 1 Not Important           |
| 4.46%; 56 Moderately Important  |                                  |

Statistics: Forms 1267; Mean 1.39; Std Dev 0.60

Q16: Defensive Driving

Frequencies (Percents; Counts):

|                                  |                                   |
|----------------------------------|-----------------------------------|
| 33.44%; 420 Extremely Important  | 4.78%; 60 Only a little Important |
| 40.13%; 504 Very Important       | 0.48%; 6 Not Important            |
| 21.18%; 266 Moderately Important |                                   |

Statistics: Forms 1267; Mean 1.99; Std Dev 0.88

Q17: Title 36 Rules and Regulations

Frequencies (Percents; Counts):

|                                 |                                   |
|---------------------------------|-----------------------------------|
| 57.26%; 718 Extremely Important | 0.80%; 10 Only a little Important |
| 33.97%; 426 Very Important      | 0.08%; 1 Not Important            |
| 7.89%; 99 Moderately Important  |                                   |

Statistics: Forms 1267; Mean 1.52; Std Dev 0.68

Q18: Water Safety

Frequencies (Percents; Counts):

|                                 |                                   |
|---------------------------------|-----------------------------------|
| 50.88%; 639 Extremely Important | 1.51%; 19 Only a little Important |
| 37.66%; 473 Very Important      | 0.00%; 0 Not Important            |
| 9.95%; 125 Moderately Important |                                   |

Statistics: Forms 1267; Mean 1.62; Std Dev 0.72

Q19: First Aid

Frequencies (Percents; Counts):

|                                  |                                   |
|----------------------------------|-----------------------------------|
| 46.73%; 585 Extremely Important  | 1.44%; 18 Only a little Important |
| 38.02%; 476 Very Important       | 0.08%; 1 Not Important            |
| 13.74%; 172 Moderately Important |                                   |





DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers  
WASHINGTON, D.C. 20314-1000

12 FEB 1992

REPLY TO  
ATTENTION OF:

S: 09 March 1992

CECW-ON

MEMORANDUM FOR ALL MAJOR SUBORDINATE COMMANDS AND DISTRICT COMMANDS

SUBJECT: Revisions to Title 36 Code of Federal Regulations (CFR),  
Chapter III, Part 327

1. We are considering making revisions to Title 36 CFR, Chapter III, Part 327; (paragraphs 327.0 through 327.26 only), Rules and Regulations Governing Public Use of Water Resource Development Projects Administered by the Chief of Engineers.
2. Paragraphs 327.30, Shoreline Management and 327.31, Shoreline Management Fee Schedule will not be revised under this action.
3. Please review the enclosed 1 Jul 91 edition of above referenced regulation and provide consolidated division comments and proposed revisions to HQUSACE (CECW-ON) by 9 March 1992.

FOR THE DIRECTOR OF CIVIL WORKS:

131

Encl

JOHN P. ELMORE, P.E.  
Chief, Operations, Construction  
and Readiness Division  
Directorate of Civil Works

HQ AR000574

11/16/15

July 22, 1992

REVISIONS TO TITLE 36 CFR  
RECOMMENDATIONS COMPILED ACCORDING TO SECTION

COMMENTS

--AIRCRAFT--reduce to a few sentences.

--UNIFORM COLLATERAL SCHEDULE

--References to other agency regulations (MARKED WITH GREEN) which rangers do not enforce. Remove them or clarify by indicating "authorized Law Enforcement Official". (There are frustrations regarding local LE NOT enforcing applicable regulations.)

--Address Flowage Easement restrictions. Title 36 only covers government owned fee land and is insufficient.

--ALCOHOLIC BEVERAGES

--"The District Engineer may restrict the use of alcohol on a portion of a project, such as a swimming beach, when necessitated by reason of public safety, maintenance, or other reasons in the public interest."

\*\*what is "use"? Avoid "consumption" or any other ridiculous terminology.

\*\*The age of "Bungee" has arrived. Great foresight may entail addressing their use.

327.1 POLICY

(a.)\*\*Define "healthful" recreational activities.

(c.)\*\*this would allow use of Title 36 to enforce certain conditions of easement permits. would probably not apply to removal of habitable structures normally litigated in civil court, but would be helpful in resolving numerous other minor easement encroachments or permit violations.

(d.)\*\*How would the reservation system apply?

(g.)\*\*The issuance of a violation notice or warning citation does not relieve the violator from further compliance with the applicable regulation. (Once cited, many violators assume exemption from receiving another citation or action.)

(h.)--"Presumption of responsibility for unauthorized disposal of household and commercial waste, when evidence is discovered that clearly pinpoints ownership."

HQ AR000576

### 327.2 VEHICLES

\*\*add a child restraint statement, to set a standard for public safety.

\*\*add "The operation of a vehicle on project lands without proper and valid Federal, or state licensing is prohibited except as designated by the District Engineer."

(c.)\*\*too ambiguous too enforce U.S. Magistrate will not rule a violation has occurred unless: one has driven through, around, or beyond a sign or barricade.

(d.)\*\*Helmet laws are rarely enforced by authorized LE. Use of off road vehicles is increasing. (dirt bikes etc.)

### 327.3 VESSELS

\*\*add all people using watercraft must wear a personal flotation device while the craft is in operation. children under 12 who are on any watercraft must wear a PFD at all times. again, stronger than many state laws. But, will set the standard for water safety.

\*\*add "Vessels shall be launched from designated launching ramps only, except as designated by the District Engineer."

(c.)\*\*eliminates the loophole so violators can not claim they were anchored and not "operating"

--change section to read: "All vessels, when in use, shall be in compliance with U.S. Coast Guard boating safety requirements (Coast Guard Pamphlet CG-290) to include, but not limited to, safety equipment, capacity labels, flotation devices, and in compliance with boating safety laws issued and enforced by the state in which the vessel is being operated."

\*\*Coast Guard 46 CFR is generally not available. make this section user friendly! (rangers do not know the reg either)

???Is a tube or mattress a vessel???

(f.)\*\*define habitation. How long may you stay on a vessel before it is considered habitation?

(g.)--Vessels towing water skiers, parasails, ski-kites and similar devices shall have an observer on board in addition to the operator.

\*\*wide angle mirrors?

(h.)\*\*How long does a vessel have to be idle to not be in use? What constitutes actual use?

--The tying of vessels to or otherwise interfering with a buoy, channel marker or other navigational aid, or similar structure is also prohibited.

(j.)\*\*define "noise level" (in excess of 84 decibels)

\*\*add paragraph addressing personal watercraft

(k.)--Personal watercraft shall not be operated between sunset and sunrise. All users are required to wear Coast Guard approved personal flotation devices. Personal watercraft shall not be used to tow waterskiers.

#### 327.4 AIRCRAFT

--The operation of powerless flight devices including, but not limited to, sail planes, gliders, balloons, body kites, and hanggliders is permitted. Powerless flight devices shall not be operated on any part of the dam, roads, bridges, or over beaches or other heavy use areas.

#### 327.5 SWIMMING

\*\*Ally the Corps with the "Feet First" movement.

(b.)--Any person or vessel engaged in underwater activities must display a standard diver's flag in accordance with applicable Federal, state or local laws. If no such law exists, a vessel shall as a minimum display an international

\*\*there is no universally recognized "international diving flag" Inland waters are different. Add the sport divers "diver-down" flag.

\*\*Alcohol use in swimming areas is popular. Local enforcement is lax and inadequately enforced.

#### 327.7 CAMPING.

(c.)At recreation areas where an approved campground reservation system is not in effect, the reserving of designated campsites for future use by self or for others without overnight occupancy, is prohibited. This includes "holding" a site throughout the day by any means, including but not limited to placing camping equipment or other items on the campsite, personal appearance(s) in the area, or paying a fee without overnight occupancy.

\*\*address the number of occupants or units per site

\*\*delete section c. it causes more confusion than it prevents.

327.9 SANITATION

\*\*address recyclables

(b.)--Except as provided in section 327.9 (a.), it is a violation to bring onto project lands or waters, any solid waste, contaminants or hazardous materials for dumping or disposal, without the prior written approval of the District Engineer. These include but are not limited to garbage, trash, debris, pesticides, PCB'S, dead animals or litter of any kind.

(f.)--Use of shower buildings and comfort stations for food preparation, cooking, washing clothes, and cleaning fish or game is prohibited.

327.10 FIRES

\*\*focus on one topic

\*\*separation of toxic materials and campfires eliminates the multiple issue created by lumping them together and provides a separate forfeiture schedule.

(d.)--The District Engineer may post additional restrictions on the use of fires during periods of high or extreme fire danger. It is a violation to start any fire(s) or to use open flame(s) or any other ignition source in violation of those posted restrictions.

(e.)--The burning of materials, chemicals, or any other substance(s) that may produce fumes that are hazardous or toxic is prohibited. These materials include but are not limited to tires, plastics or treated wood products.

327.11 CONTROL OF ANIMALS

\*\*combine third and fourth sentences:

(a.)--All animals and pets, except properly trained animals assisting the handicapped, are prohibited in swimming beaches, sanitary facilities, or other areas so designated by the District Engineer.

or

(a.)--All animals and pets are prohibited in areas where posted, on swimming beaches and in the water within 100 feet of the shoreline of developed recreation areas.

327.12 RESTRICTIONS

(a.)--add "The operation of a boat, float or vehicle, and swimming, wading, or any other such activities within 300 feet upstream or downstream of a water discharge structure is prohibited, except as designated by the District Engineer."

327.13 EXPLOSIVES, FIREARMS, OTHER WEAPONS AND FIREWORKS.

separate the section:

327.\*\* FIREARMS, PROJECTILE FIRING DEVICES, AMMUNITION, AND OTHER WEAPONS.

The possession of firearms, ammunition, projectile firing devices, bows and arrows, and crossbows is prohibited unless:

- (1.) In the possession of a Federal, State or local law enforcement officer in the line of duty;
- (2.) Being used for hunting or fishing as permitted under Section 327.8, with devices being unloaded when transported to, from, or between hunting and fishing sites;
- (3.) Being used at authorized shooting ranges;
- (4.) Being unloaded and stored in a secure compartment of a vehicle and not readily accessible; or
- (5.) Written permission has been received from the District Engineer.

327.15

327.\*\* EXPLOSIVES AND FIREWORKS.

The possession of explosives or explosive devices of and kind, including fireworks, is prohibited unless:

- (1.) In the possession of a Federal, State or local law enforcement officer while in the line of duty, or
- (2.) Written permission has been received from the District Engineer.

-OR-

\*clarifies the firearms issue. Since rangers do not have the authority to seize a firearm to determine if it is loaded.

\*list "other weapons" i.e. "including, but not limited to, brass knuckles, night sticks, billy clubs, paint ball guns, pellet guns, stun guns, throwing stars, etc."

(b.)--rewrite: Being used for hunting or fishing as permitted under Section 327.8, or on project lands/waters for the purpose of hunting or fishing, with devices being unloaded when transported to, from or between hunting and fishing sites.

327.14 PUBLIC PROPERTY

\*\*strengthen to make destruction a more serious violation, providing for restitution of destroyed property.

\*\*metal detectors--"The use of metal detectors is permitted on beaches or other previously disturbed areas that do not contain archaeological, historical or paleontological artifacts. The District Engineer may restrict the use of metal detectors in areas containing known archaeological, historical, or paleontological resources. Identifiable items or items of greater than a nominal value of \$25.00 shall be deposited with

HQ AB000580

the resource manager in accordance with 327.15 and 327.16. Digging shall be limited to hand tools what can be used by one hand only. Hand tools shall be limited to 4 inches wide and 12 inches long."

327.19 PERMITS

(b.)\*second sentence is unclear in its applicability

327.23 RECREATION USE FEES

(c.)\*eliminate sentence, covered under Section 327.25 (a.), or other wise increase the maximum fine to something greater than \$100.

(d.)--add Failure to comply with the conditions of this passport or any use other than that expressly permitted is prohibited. Misused passports subject to forfeiture.

--or--

Use of these permits by anyone other than the permittee is prohibited, and proper identification will be required when using these permits.

327.24 INTERFERENCE WITH GOVERNMENT EMPLOYEES.

(a.)\*magistrates interpretation of this has caused problems, define or delete.

(b.)\*it appears to mean that failure to comply or provide correct information only applies if the employee has citation authority. Non-compliance is acceptable if the requestor is lacking citation authority. i.e. temporary and summer hire rangers.

327.25 VIOLATIONS OF RULES AND REGULATIONS

(a.)\*this changed 6 November 1991 see 18 USC, section 19.

**From:** Elaine W DeVoe  
**To:** Steve E Austin  
**Date:** 3/25/97 9:10pm  
**Subject:** Title 36 Update

Hi Phil,

I understand that you are chairing the Title 36 update task force. Why do you get all of the easy jobs?

I had a couple of things that were brought to my attention that I would like for you to consider during the update.

o 327.25 is a section that basically discusses fine and sentence limits and Title 18 coverage. As far as I can tell it is just policy. According to the NRMS we had 22 citations and written warnings against this section in 1996. Does this section have to be in T36? Can this material be covered in our regulations only? (I can not think of a way to write a citation on this section)

o 327.26 is a section that describes what areas of the law the state and locals cover. It clearly states that these laws are not enforced by us. However, last year we had 17 citations and warnings written against this section. This section is one that I always encounter questions on when I teach it in the PROSPECT course. Many assume that this means they can write citations for these state and local offenses. Some magistrate's districts have set collateral forfeiture for this section further convincing rangers that they can write citations. This section is confusing to the rangers and needs to be either left out of T36 and covered in our regs (my personal favorite) or clarified in some way.

I know that everyone has their own opinion about T36 changes and I'm no different. I would appreciate it if you could make sure that the PROSPECT instructors who teach the policy section get a chance for input.

Thanks  
Elaine DeVoe

**From:** TODD YANN  
**To:** X400.MCX(Parsley-Philip-R-CESAS-OP-S)  
**Date:** 6/10/97 3:23pm  
**Subject:** Title 36 - Maximum Fines

Phil -

Hello from Nashville - long time no see (or hear from).

I understand that you're now the Sultan of Title 36 - congratulations! I called today to discuss a T36 issue with you and learned that you were out of the office.

For the past two years our magistrates in the Middle Judicial District of Tennessee have held that a recent change to Title 18 USC 3571 now gives them the discretion to impose fines of up to \$5000 in T36 cases. The U.S. Attorney here agrees and prosecutes and gets fines up to this amount for our more serious offenses.

Unfortunately, other magistrates across this great land (including the one who hears our cases in the Eastern District of Kentucky) don't follow this and refuse to impose fines over \$500.

It would good if we could get an affirming opinion on this section from Department of Justice and then publish the maximum fines for T36 as being \$5000. This would be a great help in districts where magistrates and attorneys are reluctant to impose or ask for the higher fines. This might also have an influence in increasing collateral forfeiture fine schedules.

Please call me at 615-736-5115 if you have any questions. Thanks!

Todd

CC: X400.MCX(Burger-Charles-CESWF-OD-GR,Devoe-Elaine-W...

HQ AR000584-HQ AR000586

**TASK FORCE CHARTER  
TITLE 36 REVISION**

**1. BACKGROUND.** On 4 November 1994, Acting Assistant Secretary of the Army for Civil Works, concurred with a plan to conduct a thorough review of visitor and ranger safety on Corps of Engineers natural resource projects. To facilitate this review, a nine-member task force (Task Force) was assigned the responsibility to perform the following tasks: (1) Identify major safety issues (2) Identify options and solutions to alleviate problems identified (3) Evaluate options and solutions (4) develop recommendations (5) assist in developing policy, and (6) assist in monitoring and adjusting program after implementation of new policy. The Task Force Report (Visitor and Ranger Safety Review) was submitted in October 1995 and contained 54 recommendations including the following:

*"Revise Title 36 "*

**2. TASK FORCE.** A special task force is being charged to conduct a full review the above statement and to provide a recommendation for CECW consideration/action. The Task Force will be called hereafter "Title 36 Review Task Force."

**3. TASKS.** Task Force members will accomplish the following specific actions:

A. Review the Visitor/Ranger Safety Review Report and existing Corps and other Federal/state regulations and guidance relative to 36 CFR Section III, Chapter 327, Title 36..

B. Assess the overall impact of regulation changes in today's political climate.

C. Obtain field comments to current Title 36 via field survey or other means.

D. Review all sections of the current Title 36 publication, except 327.30, Lakeshore Management and reexamine issues identified in 1991.

1. Examine each section and identify those sections that need addressing in relation to todays climate within the auspices of ranger role in Visitor Assistance.

2. Identify the ranger and visitor safety issues that can be addressed within Title 36 as identified in the Ranger/Visitor Safety Task Force

E. Evaluate all changes, (including no action to change Title 36), documenting the pros and cons of each change.

F. Recommend changes to the existing publication, with the exception of 327.30 Lakeshore Management.

G. Conduct field review of all suggested revisions.

H. Provide the Visitor and Ranger Safety Steering Committee with final recommendations and a full analysis and any resulting recommendations that address changes within the scope of Ranger and Visitor Safety.

I. Assist with actions relative to a public review in the Federal Register.

J. Assist HQUSACE Natural Resource Branch in the development of implementing policy.

**4. MILESTONES.** The following schedule of tasks, actions, responsibilities, and milestones will be adhered to in the review and development process by the Title 36 Task Force. The Task Force will not deviate from this schedule without prior approval of the Visitor and Ranger Safety Steering Committee.

| <u>TASK</u>                                    | <u>SUSPENSE</u> |
|--|-----------------|
| a. Commence Task Force Work                    | 3 Mar 97        |
| b. Provide ICR to Steering Committee           | 1 Jun 97        |
| c. Submit draft changes to all field personnel | 1 Aug 97        |
| c. Submit Final Product to Steering Committee  | 1 Oct 97        |

**5. PRODUCT.** The Task Force will produce a final, written report that:

a. Identifies sections that need to be changed, added to, or deleted. Identify new sections if needed.

b. Identifies and evaluates all options and changes.

c. Presents the pros and cons associated with each recommendation.

d. Summarizes the analysis conducted, draws conclusions and makes a specific recommendation (with alternatives, if appropriate) for the consideration of the Steering Committee.

e. Provides final language suitable for public review in the Federal Register.

**6. TASK FORCE CHAIR.** Chairperson will guide Task Force efforts from initial scoping through implementation and monitoring of the final process. Chairperson will:

- Assign tasks, direct and monitor Task Force progress to assure effort is meeting milestones.

- Assure adequate logistical support for Task Force is provided. This includes scheduling of meetings and coordinating of travel arrangements.

- Maintain communications between the Task Force and CECW-ON to assure efforts remain consistent with the concept established by the Steering Committee.

**7. FUNDING.** Salary, travel and per diem costs are the responsibility of the organization of the individual Task Force members. All other costs associated with the Title 36 Review Task Force will be paid by CECW-ON or others.

HQ AR000587-HQ AR000645

|   |  |   |
|---|--|---|
| <p>CECW-ON<br/><br/>Regulation No.<br/>1130-2-550</p> | <p>Department of the Army<br/>U.S. Army Corps of Engineers<br/>Washington, DC 20314-1000</p>                 | <p>ER 1130-2-550<br/><br/>15 Nov 96</p> |
|   | <p>Project Operations<br/><br/>RECREATION OPERATIONS<br/>AND MAINTENANCE POLICIES</p>                        |   |
|   | <p><b>Distribution Restriction Statement</b><br/>Approved for public release; distribution is unlimited.</p> |   |

DEPARTMENT OF THE ARMY  
U.S. Army Corps of Engineers  
Washington, DC 20314-1000

ER 1130-2-550  
Change 1

CECW-O

Regulation  
No. 1130-2-550

1 October 1999

Project Operations  
RECREATION OPERATIONS AND MAINTENANCE POLICIES

1. This Change 1 to ER 1130-2-550, 15 Nov 96, provides guidance for the administration and management of the USACE Recreation Management Support Program.

2. Substitute the attached pages as shown below:

| Chapter           | Remove page | Insert page   |
|-------------------|-------------|---------------|
| Table of Contents | iii         | iii           |
| 15                |             | 15-1 and 15-2 |

3. File this change sheet in front of the publication for reference purposes.

FOR THE COMMANDER:

  
RUSSELL L. FUHRMAN  
Major General, USA  
Chief of Staff

DEPARTMENT OF THE ARMY  
 U.S. Army Corps of Engineers  
 Washington, D.C. 20314-1000

ER 1130-2-550

CECW-ON

Regulation  
 No. 1130-2-550

15 November 1996

Project Operations  
 RECREATION OPERATIONS AND MAINTENANCE POLICIES

## TABLE OF CONTENTS

|   | Paragraph | Page |
|---|-----------|------|
| CHAPTER 1 - Introduction  |           |      |
| Purpose   | 1-1       | 1-1  |
| Applicability   | 1-2       | 1-1  |
| References  | 1-3       | 1-1  |
| Glossary  | 1-4       | 1-4  |
| CHAPTER 2 - Recreation Management                                 |           |      |
| Purpose   | 2-1       | 2-1  |
| Policy  | 2-2       | 2-1  |
| CHAPTER 3 - Project Master Plans And Operational Management Plans |           |      |
| Purpose   | 3-1       | 3-1  |
| Policy  | 3-2       | 3-1  |
| CHAPTER 4 - Interpretive Services And Outreach Program            |           |      |
| Purpose   | 4-1       | 4-1  |
| Policy  | 4-2       | 4-1  |
| CHAPTER 5 - Visitor Center Program                                |           |      |
| Purpose   | 5-1       | 5-1  |
| Policy  | 5-2       | 5-1  |

---

This regulation supersedes ER 70-2-7, dated 1 April 1981; ER 1130-2-401, dated 15 February 1991; ER 1130-2-404, dated 2 July 1985; ER 1130-2-405, dated 17 January 1974; ER 1130-2-411, dated 15 November 1977; ER 1130-2-414, dated 30 December 1983; ER 1130-2-418, dated 1 February 1984; ER 1130-2-420, dated 1 November 1992; ER 1130-2-428, dated 30 September 1983; ER 1130-2-430, dated 30 August 1984; ER 1130-2-435, dated 30 December 1987; ER 1130-2-442, dated 1 October 1991; and Engineer Circular (EC) 1130-2-204, dated 15 February 1995.

ER 1130-2-550  
 Change 3  
 15 Aug 02

|  | Paragraph | Page |
|--|-----------|------|
| CHAPTER 6 – Visitor Assistance Program   |           |      |
| Purpose  | 6-1       | 6-1  |
| Policy   | 6-2       | 6-1  |
| CHAPTER 7 – Cooperative Agreements for Law Enforcement Services at Civil Works Water Resource Projects |           |      |
| Purpose  | 7-1       | 7-1  |
| Policy   | 7-2       | 7-1  |
| CHAPTER 8 – Uniforms for Natural Resource Management Program Staff                                     |           |      |
| Purpose  | 8-1       | 8-1  |
| Policy   | 8-2       | 8-1  |
| CHAPTER 9 – Recreation Use Fees  |           |      |
| Purpose  | 9-1       | 9-1  |
| Goals  | 9-2       | 9-1  |
| Policy   | 9-3       | 9-1  |
| General Fees   | 9-4       | 9-3  |
| Camping Fees   | 9-5       | 9-3  |
| Day Use Fees   | 9-6       | 9-4  |
| Special Use Fees   | 9-7       | 9-7  |
| Other Equipment, Facilities and Services   | 9-8       | 9-8  |
| Discounts  | 9-9       | 9-9  |
| Accounting   | 9-10      | 9-10 |
| Security Measures  | 9-11      | 9-11 |
| CHAPTER 10 – Use of Off-road Vehicles on Civil Works Projects  |           |      |
| Purpose  | 10-1      | 10-1 |
| Policy   | 10-2      | 10-1 |
| Responsibilities   | 10-3      | 10-1 |
| CHAPTER 11 – Regulation of Seaplane Operations on Civil Works Water Resource Development Projects      |           |      |
| Purpose  | 11-1      | 11-1 |
| Policy   | 11-2      | 11-1 |
| CHAPTER 12 – Natural Resource Management System  |           |      |
| Purpose  | 12-1      | 12-1 |
| Policy   | 12-2      | 12-1 |

ER 1130-2-550  
Change 5  
30 Mar 09

|   | Paragraph | Page |
|---|-----------|------|
| CHAPTER 13 – Recreational Use Surveys   |           |      |
| Purpose   | 13-1      | 13-1 |
| Policy  | 13-2      | 13-2 |
| CHAPTER 14 – Natural Resources Management Maintenance Uniforms                                      |           |      |
| Purpose   | 14-1      | 14-1 |
| Policy  | 14-2      | 14-2 |
| CHAPTER 15 – Recreation Management Support Programs   |           |      |
| Purpose   | 15-1      | 15-1 |
| Policy  | 15-2      | 15-1 |
| CHAPTER 16 – Recreation Development Policy for Outgranted Corps Lands                               |           |      |
| Purpose   | 16-1      | 16-1 |
| Applicability   | 16-2      | 16-1 |
| Policy  | 16-3      | 16-1 |
| Definitions   | 16-4      | 16-2 |
| Evaluation Criteria   | 16-5      | 16-2 |
| Implementation  | 16-6      | 16-3 |
| APPENDIX A – References   |           | A-1  |
| APPENDIX B – Management Considerations for Recreation Areas Relinquished<br>By Non-Federal Interest |           | B-1  |
| APPENDIX C – Market Studies   |           | C-1  |
| APPENDIX D – Feasibility Studies  |           | D-1  |



ER 1130-2-550  
15 Nov 96

## CHAPTER 1 - INTRODUCTION

1-1. Purpose. This regulation establishes the policy for the management of recreation programs and activities, and for the operation and maintenance of U.S. Army Corps of Engineers (USACE) recreation facilities and related structures, at civil works water resource projects.

1-2. Applicability. This regulation applies to all USACE commands having responsibility for civil works functions.

1-3. References. See Appendix A.

1-4. Glossary.

a. Interpretive Services. Communication and education processes provided to internal and external audiences, which support the accomplishment of Corps missions, tell the Corps story, and reveal the meanings of, and relationships between, natural, cultural, and created environments and their features.

b. Outreach Activities. Communication efforts involving programs that reach diverse populations such as students, teachers, organized groups such as Boy Scouts, Girl Scouts, 4-H, and the general public, beyond the physical boundaries of Corps projects and facilities.

## CHAPTER 2 - RECREATION MANAGEMENT

2-1. Purpose. This chapter establishes the policy for the administration and management of USACE recreation programs and facilities at civil works water resource projects.

2-2. Policy. It is the policy of the Corps of Engineers:

a. That programs and activities related to outdoor recreation will have as their design base:

(1) the following mission statement:

"The Army Corps of Engineers is the steward of the lands and waters at Corps water resources projects. Its Natural Resources Management Mission is to manage and conserve those natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations.

In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance and restoration practices.

The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector.

The Corps integrates the management of diverse natural resource components such as fish, wildlife, forests, wetlands, grasslands, soil, air, and water with the provision of public recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life."

(2) and, the following program objectives:

(a) To provide a quality outdoor recreation experience which includes an accessible, safe and healthful environment for a diverse population,

(b) To increase the level of self-sufficiency for the Corps recreation program,

(c) To provide outdoor recreation opportunities on Corps of Engineers administered land and water on a sustained basis, and

(d) To optimize the use of leveraged resources to maintain and provide quality public experiences at Corps water resources projects.

b. To accomplish the program objectives, the Corps manages land and water resources in cooperation with other Federal, state and local agencies, quasi-public organizations and the private sector supplemented by volunteers, contributions and challenge cost sharing programs.

c. Project master plan and operational management plans will be prepared in accordance with Chapter 3 of this regulation.

d. Outdoor Recreation. Public use of project lands and water shall be on a first-come,

ER 1130-2-550  
15 Nov 96

first-served basis. However, reservations may be accepted for the use of public use facilities.

(1) The Corps or another public agency may provide and administer facilities for use by the camping public. Campgrounds may also be provided and/or administered by commercial concessions. Camping shall be permitted only in those areas designated by district commander and such activity shall be in accordance with 36 Code of Federal Regulation (CFR) Part 327.

(2) Camping at one or more Corps operated campsites at any one water resource project for a period longer than 14 days during any 30-consecutive-day period is prohibited without the written permission of the District Commander or his/her designee.

(3) Fees for Corps-owned equipment, property, and facilities shall be in accordance with Chapter 9 of this regulation.

(4) Existing beaches and concentrated swimming areas operated by the Corps shall be maintained in a physically safe and efficient manner in accordance with Engineer Manual (EM) 1110-1-400, including maintaining appropriate gradient, beach nourishment, adequate buoys, proper signing and water quality monitoring.

e. Natural Resources Management Program Staff. A multi-disciplinary resource based approach to project personnel hiring should be used which insures that a wide range of technical expertise is present to effectively manage the full range of natural and human resources found at the project. Personnel having expertise in areas such as forestry, wildlife management, recreation management, fisheries management, parks management, landscape architecture, biology, soil, science, interpretation, visitor assistance and contract administration are often needed. Specific guidance on personnel specifications, training, and development are contained in EP 690-2-2 "Career Development Guide for Natural Resources Management Team Members."

(1) The mobility of natural resource management personnel greatly enhances the experience base of both the organization and the individual. The use of temporary mobility assignments for training and development to other offices, districts, divisions or headquarters should be maximized.

(2) In accordance with PL 98-63, volunteers may also be utilized to supplement project personnel. (See Chapter 10 of ER 1130-2-500, The Corps of Engineers Volunteer Program.)

(3) In-house training, including HQUSACE sponsored courses, shall be conducted on subjects directly related to the Natural Resources Management Program.

f. The enforcement of 36 CFR 327 cannot be contracted but must be conducted by qualified government employees.

g. Alcoholic Beverages.

(1) The sale of alcoholic beverages on Corps projects by lessees is permitted only in accordance with state and local laws. Facilities (e.g., resort type developments) which traditionally provide the sale of alcoholic beverages may do so where they are served in conjunction with other services within the establishment. Facilities with the primary purpose of selling alcoholic beverages are prohibited.

ER 1130-2-550  
15 Nov 96

(2) District Commanders have the authorization under 36 CFR Chapter III, Part 327.13 (Title 36) to prohibit the possession or use of alcohol at selected areas on projects within their jurisdiction. To determine the need for such restrictions, periodic joint natural resource management and security assessments will be conducted at all water resources development projects, with an annual visitation of 20,000 visitor hours or more, regarding the need to ban alcohol consumption/possession on project-administered lands and waters. Commander will insure that initial assessments are completed by 30 May 1997. Additional assessments will be conducted as appropriate.

h. Cigarette Sales to Minors. Public Law 104-52 required the removal of cigarette vending machines accessible by minors from all Federal buildings and lands. This requirement applies to all Corps real estate and includes all property owned, leased or rented. All cigarette vending machines owned or operated by the government, private organizations, other elements of the Army, or their contractors are to be removed.

i. Gambling on Corps Projects. Gambling on all leased premises, including state sponsored lotteries, shall be prohibited. District commanders may permit nonprofit organizations to conduct some games of chance, such as raffles, games or sporting events, under special use permits in conjunction with special events on Corps lands only if permissible by state and local laws and regulations.

j. Public Involvement. Operations element and project personnel shall coordinate activities with the district Public Affairs office in order to maximize the use of all means to keep the public informed of Corps outdoor recreation programs and opportunities for public involvement.

k. Signs. Project signs shall conform to EP 310-1-6a and b, U.S. Army Corps of Engineers Sign Standards Manual.

l. Memorial Plaques. Memorial plaques may be provided at all projects where considered appropriate by the operations project manager.

m. Coordination. The operations element shall seek full coordination with appropriate Corps elements in the planning, design, construction, administration, and management of all projects, including those managed by other agencies. Cooperation and continuous coordination shall be maintained with other governmental agencies having collateral interests in parks, recreation, natural resources, law enforcement, and other matters which are of concern in proper management of the project.

n. Lifeguards. Lifeguard services are not provided at public use areas administered by the Corps. Planning and safety regulations, however, do require proper signing and notification to the public regarding water safety, lack of lifeguards and safety equipment. Lifeguard services may be provided by other agencies at outgranted swimming areas.

o. Safety. During work planning and management, provisions of EM 385-1-1, Safety and Health Requirements Manual, and engineer regulations in the 385 series will be applied to all activities except outgrant activities and disposals of timber.

(1) The Operations Project Manager will appoint a member of the project staff to serve as the project safety officer.

ER 1130-2-550  
15 Nov 96

(2) Project personnel will promote, develop, and maintain public interest in recreation safety through the establishment of water safety councils or by participation in other local water safety educational opportunities.

(3) Commercial telephone for emergency use will be provided in public use areas where feasible.

(4) Adequate security lights will be provided at all Corps managed boat launching ramps when the lights are available at a reasonable cost. In areas where electrical service is not readily available, reflective type sign/markers will be installed and maintained to identify ramp locations. Battery or solar generated lights are also an alternative.

(5) Unattended Corps managed day-use areas will be closed at night, if such a restriction on public access is considered necessary by the responsible Operations Project Manager to provide adequate visitor safety and resource protection. Prior to any such closure, consideration will be given to alternatives that accommodate the continued authorized use of the facilities while providing the necessary levels of safety and protection. Users of those facilities will be fully informed concerning the details of any closure, and wherever appropriate, will be provided opportunities to input into such decisions.

p. Search, Rescue and Recovery. Search, rescue and recovery activities are properly performed by local and state authorities. Corps personnel will assist as funds/personnel permit. Coordination with local authorities is essential.

q. Boundary Surveys and Marking. (See Chapter 2, paragraph 2-2h (1)-(4) of ER 1130-2-540)

r. Outgranting of Lands. (See Chapter 2, paragraph 2-2f of ER 1130-2-540 and ER 405-1-12)

s. Areas Relinquished by Non-Federal Interests. All leased recreation areas returned to the Corps, that do not qualify for the exceptions to policy in Appendix B, will be closed. In situations where recreation areas are returned to the Corps, three basic considerations should be observed: Paramount is that the Corps must honor its obligations and legal commitments; secondly, the Corps must objectively evaluate alternatives based on existing authorities and available resources; and thirdly, good faith and credibility with the public and our non-Federal partners must be maintained.

t. Human Habitation. (See Chapter 2, paragraph 2-2(f)(7) of ER 1130-2-540)

u. Private Exclusive Use. (See Chapter 2, paragraph 2-2(f)(8) of ER 1130-2-540)

v. Fire Protection. As authorized in Title 42, USC, Section 1856a., the Corps may enter into reciprocal agreements with responsible fire organizations for fire protection of Corps properties. Such agreements will include a waiver of all claims for compensation for any losses, damage, personal injury or death resulting from the performance of the agreement. The agreement may also provide for the reimbursement for any or all costs incurred in furnishing fire protection on Corps lands. The authority to approve these agreements is delegated to the district commander.

ER 1130-2-550  
15 Nov 96

w. Control or Access. Roads which are not maintained, outgranted or used by the Corps, or are not dedicated as public roads by a governmental entity, should be closed, obliterated and revegetated to blend with the natural environment.

ER 1130-2-550  
15 Nov 96

## CHAPTER 3 - PROJECT MASTER PLANS AND OPERATIONAL MANAGEMENT PLANS

3-1. Purpose. This chapter establishes the policy for the preparation of master plans and operational management plans for USACE civil works projects.

3-2. Policy. It is the policy of the Corps of Engineers that:

a. Master Plans (MP) and Operational Management Plans (OMP) be developed and implemented for each USACE civil works project and are intended to work in tandem.

b. Master plans shall be developed and kept current for all civil works projects and other fee owned lands for which the Corps has administrative responsibility for management. Preparation of the master plan shall be initiated as soon as possible after approval of the general design memorandum (GDM), so that approved recreation and other feature developments shall become available as the project becomes operational. Lands may be exempted from this requirement with the MSC Commander's approval, where there is no demonstrated need or opportunity to manage them.

c. Master plans and operational management plans should take Tier II, III, and IV performance measures into account when the plans are developed and/or revised.

d. Master plans shall be prepared for projects not managed by the Corps of Engineers, such as local protection projects, at the discretion of the MSC Commander.

e. The master plan shall cover a single project or several projects, depending on what is best for management of the resources involved. For example, it is appropriate to lump a number of navigation projects (i.e., navigational structures), located in a given geographic region into a single master plan to address issues such as outgrants, public use, and appropriate use of fee lands. Each MSC shall coordinate with their respective districts on the scope, content, and organization of each master plan. The master plan shall cover all resources, including but not limited to fish and wildlife, vegetation, cultural, aesthetic, interpretive, recreational, mineral, commercial, and outgranted lands, easements, and water.

f. Interdisciplinary master plan teams, appointed by district team leaders, shall identify information needs and means for obtaining resources, study costs, schedules, tasks, and responsibilities. The interdisciplinary team shall include Corps district and project representatives of various disciplines, depending upon the resources involved.

g. Master plans shall focus on three primary components: (1) regional and ecosystem needs, (2) project resource capabilities and suitabilities, and (3) expressed public interests and desires. See Chapter 3 of EP 1130-2-550 for specific guidance on the format and content of a master plan. The master plan will ensure that environmental mandates and considerations are incorporated. The master plan shall ensure that economy and quality shall be given equal attention in the development of new recreation facilities.

h. District commanders shall be responsible for approving master plans, supplements and updates which meet the criteria listed in Chapter 3 of EP 1130-2-550. District commanders shall be responsible for ensuring that master plans are completed for all projects. Each master plan shall be reviewed on a periodic basis, such as five years, and shall be revised as required.

ER 1130-2-550  
15 Nov 96

i. Based on an approved MP, projects shall develop and implement an OMP to achieve the objectives outlined in the MP. See Chapter 3 of EP 1130-2-550 for specific guidance on the format and content of an OMP.

j. Project personnel shall develop and fully implement project OMP, in accordance with the approved project MP. The OMP will be approved by the District Commander.

(1) Objectives and implementation plans shall be established for each area of emphasis: Natural Resources Management and Park Management. During development and revision of OMPs, emphasis shall be given to achieving environmental mandates and other environmental considerations of a national, regional or ecosystem nature. Emphasis shall also be given to achieving economy in planning, designing, constructing, and managing recreational facilities. Specific guidance on the OMP preparation and implementation processes is provided in Chapter 3 of EP 1130-2-550.

(2) The OMP shall be updated annually at the project level. Costs for annual update of the Project OMP will be included in the project's budget as a baseline item.

## CHAPTER 4 - INTERPRETIVE SERVICES AND OUTREACH PROGRAM

4-1. Purpose. This chapter establishes the policy for the operation of the USACE Interpretive Services and Outreach Program (ISOP) at civil works water resource projects.

4-2. Policy. It is the policy of the Corps of Engineers that:

a. An Interpretive Services and Outreach Program (ISOP) shall be implemented at each Corps-operated project. The type and magnitude of this program shall be determined by the District Commander and shall be commensurate with the type and size of the project, project visitation, funding, and personnel resources. In addition, all ISOP efforts shall provide for universal accessibility where practical. All activities under this program shall be designed to accomplish one or more of the following goals:

- (1) Achieve management objectives using interpretive techniques.
- (2) Provide environmental education to foster voluntary stewardship of natural, cultural, and created resources.
- (3) Incorporate Corps civil works and military missions and accomplishments into interpretive programming.
- (4) Improve visitor and employee safety using interpretive techniques.
- (5) Use outreach to accomplish ISOP goals, including interpreting Corps missions, promoting stewardship, saving lives, and solving management problems. The interpretive process should also encourage interest in math and science, including career interest.
- (6) Enhance the visitors' experience and enjoyment by anticipating their needs and providing interpretive resources to meet those needs.

b. Districts shall be responsible for the administration and management of the Interpretive Services and Outreach Program. Project offices shall be responsible for implementation of the ISOP program. Each MSC and district office shall designate an ISOP coordinator. The district coordinator shall act as a liaison among all district team members involved with interpretation and outreach, and field projects. The primary responsibility of the coordinator shall be to assure that implementation of the ISOP is consistent with this regulation. Additional guidance is located in EP 1130-2-550, and EP 1130-2-434, Volumes 1-5, JS (Job Standards), DI (Database Instructions), FS (Chittenden Award Fact Sheet).

c. Each project shall designate a point of contact (POC) whose function is to implement the ISOP at the local level. Each field project shall develop an interpretive prospectus for inclusion in the Operational Management Plan to be used as a planning document in implementation of the ISOP.

d. Projects are encouraged to use a variety of staffing sources in conducting the ISOP. This includes permanent and temporary rangers, support staff, summer aids, volunteers (see Chapter 10 of ER 1130-2-500), contractors, cooperating associations (see Chapter 9 of ER 1130-2-500), and others. See also Chapter 4 of this regulation for additional guidance on the

ER 1130-2-550  
15 Nov 96

implementation of the ISOP at Corps visitor centers.

e. Projects shall be encouraged to make use of static communication techniques such as interpretive signs, publications, and self-guided tours where personal communication is not possible or practical.

f. Quality training in interpretation shall be made available to rangers, managers, district and division office team members, and others who have job responsibilities related to the interpretive program. All personnel with interpretive duties, including permanent, temporary, and seasonal employees as well as volunteers, should receive appropriate training. Key training and career development issues related to this topic are addressed in EP 690-2-2, Career Development Guide for Civil Works Natural Resources Management Team Members. In addition, eligible personnel shall be encouraged to investigate the applicability of the following methods of training to their individual work requirements:

(1) Formal interpretive services training. This includes Proponent Sponsored Engineers Corps Training (PROSPECT) courses, college courses and other courses as appropriate. Functional training is available through other related PROSPECT courses developed by Public Affairs, Information Management and others.

(2) Training by professional organizations. Professional organizations offer a variety of training opportunities in interpretation and environmental education.

(3) Local training. Local training may be carried out in a variety of ways. It may be implemented by offering periodical refresher courses/training sessions on topics of interest to sharpen skills, exchange and/or update information, or by entering into training partnerships with other agencies. These forms of training are especially recommended when, for reasons of cost-effectiveness, it is not feasible to procure more costly formal training.

g. The efforts of exemplary interpreters shall be recognized through the Chief of Engineers Hiram M. Chittenden Award for Interpretive Excellence.

h. Each project shall evaluate its ISOP on an annual basis to assure consistency with this regulation.

i. Limited upward reporting will be included in the Natural Resource Management System (NRMS).

ER 1130-2-550  
15 Nov 96

## CHAPTER 5 - VISITOR CENTER PROGRAM

5-1. Purpose. This chapter establishes the policy governing planning, development, management, and operation of USACE Visitor Center facilities at civil works water resource projects.

5-2. Policy. It is the policy of the Corps of Engineers to plan, develop, manage and operate Visitor Centers at water resource development projects in accordance with the following criteria:

a. The Corps of Engineers is responsible for providing information to the visiting public at every project it operates through a Type A Regional Visitor Center, a Type B Project Visitor Center, or a Type C Visitor Information Facility.

b. The interpretive objectives of Visitor Centers are to:

(1) Enhance the public's understanding of the multidimensional role of the Army and the Corps and their contributions to the Nation.

(2) Enhance the public's understanding of the purpose and operation of the project, its archeological, historic, man-made, natural, and cultural features.

(3) Develop public appreciation for the proper and safe use of project resources.

(4) Foster the spirit of personal stewardship of public lands.

(5) Orient the visitor to the project and its recreational opportunities.

(6) Aid project personnel in accomplishing management objectives.

(7) Reduce overall project operation and maintenance costs.

c. Visitor facilities must fall into one of the following categories:

(1) Type A Visitor Center. Construction of Type A Regional Visitor Centers is no longer authorized. Specific legislation is the only way a new Type A Visitor Center can be built. However, a Type B Visitor Center can be redesignated as a Type A Visitor Center with authorization by HQUSACE (CECW-ON) provided it meets the existing criteria. A Type A Visitor Center is intended to serve as a regional facility. It provides information encompassing a large geographic area such as a river basin, state, or other designated area of concern. It tells the story of the Corps from the national to the local level and the mission of the local project. It provides information on the socioeconomic development of the area, events of archeological, historical, cultural, and natural importance in the area, and other items of interest. Information shall be made available to visitors concerning rules and regulations, safety, facilities, and other recreation projects in the area. This type of facility is called a "Regional Visitor Center."

(2) Type B Visitor Center. Construction of Type B Project Visitor Centers are limited to those projects where the Corps is committed to construction through legislation, memorandum of understanding or cost sharing agreements. This type of Visitor Center, established by the MSC Commander, presents information on the project area. This can include specifics on Corps

ER 1130-2-550  
15 Nov 96

history, the project, natural and cultural resources, and local history. In addition, information on rules and regulations, safety, facilities and project recreation opportunities should be available to visitors. This type of center is similar to the Type A Visitor Center except that its scope is local in nature. This type of facility is called a "Project Visitor Center."

(3) Type C Visitor Center. Construction of Type C Visitor Information Centers is limited to the placement of exhibits in existing buildings, or in new or rehabilitated administration buildings for which construction has been budgeted. Justification for these buildings shall be based on administrative need. Information facilities of this type are usually incorporated into existing buildings. Type C Visitor Centers shall be staffed during regular office hours, as needed, incidental to other work. They dispense information, publications and maps which assist visitors in understanding, locating, and safely using and enjoying project facilities. Displays and presentations, as space permits, cover such topics as project purpose, visitor safety, history, and natural resources. This type of facility is called a "Visitor Information Center."

(4) Projects Without Visitor Centers. If a project does not have any of these facilities available, an area shall be designated to make Corps project, regulatory, safety, and other informative materials available to the public.

d. Visitor centers and support facilities (access roads, parking, etc.) are restricted to fee lands. Acquisition of additional lands to accommodate Visitor Centers, or their support facilities is not authorized. The Master Plan (MP) or the Supplement (if necessary) shall address visitor center facilities and program requirements in general terms, including information on future construction, rehabilitation, and the interpretive prospectus.

e. Specific operating guidelines for individual visitor centers are left to the discretion of the Operations Project Manager and District staff. In addition to regular paid staff or contract services, Operations Project Managers should make full use of volunteers and cooperating associations.

f. All visitor centers and exhibits shall be reviewed for relevancy, accuracy, timeliness, and safety at least once every five years by a district level review team. The review team shall be interdisciplinary, consisting of one representative from each of the following office elements: public affairs, natural resource management, information management, engineering, safety, security and history (if available).

g. The Operations Project Manager and/or District should foster cooperation with Federal, state and local agencies, non-profit educational, or other interest groups and individuals in order to facilitate the operation of visitor centers. In addition, Visitor Center Managers may consider the development and use of Cooperative Agreements. These Agreements are between nonprofit, tax-exempt corporations established for educational, scientific and/or interpretive purposes and the Corps, acting through the District Commander.

h. Development and funding procedures for renovations, rehabilitations, new equipment, and brochures must follow those established by the District and MSC, and by HQUSACE where applicable (annual budget EC).

i. Operation. It is imperative that Visitor Centers be operational during periods of heaviest visitation and accommodate large groups. All Type A and B Visitor Centers will have

ER 1130-2-550  
15 Nov 96

adequate staff to ensure that they are operational during these periods. Specific operating guidelines for individual visitor Centers are properly left to the discretion of the Project Manager and District staff.

(1) Permanent Personnel. It is the District's responsibility to ensure that adequate FTEs are authorized for proper operation of Regional and Project Visitor Centers. If FTEs are not available, districts should consider the use of contract personnel. Regional Visitor Centers will be staffed at a minimum with one full-time permanent position. This employee will hold the primary responsibility for operation of the facility.

(2) Contract Services. If adequate staffing cannot be maintained through permanent and seasonal personnel, districts are authorized to contract for these services with O&M funds. Control or ownership of Visitor Center facilities or contents will not be conveyed to an operating contractor. Visitor Center design and planning remain a Corps responsibility in contract operated facilities, as do management decisions such as those regarding hours and days of operation, specific operation guidelines, and visitor center objectives. Should the Corps contract for the operation of a Visitor Center, it is the Corps' responsibility to provide adequate training for contract personnel on the Corps history, operational procedures, and interpretive materials in the center.

(3) Volunteer Services. Individual or group volunteers may be used to staff Corps Visitor Centers if adequate Corps staffing is not available. However, the Corps must provide adequate training and supervision to ensure quality service to the visiting public.

j. Public Food Service facilities, including beverage, candy, and cigarette machines will not be provided by the government or be accessible to the public.

## CHAPTER 6

## Visitor Assistance Program

6-1. Purpose. This chapter establishes the policy for providing assistance to visitors at USACE Civil Works water resource projects, under the provisions of Section 234 of the Flood Control Act of 1970, PL 91-611. This Chapter supersedes the 15 Nov 1996 edition of ER 1130-2-550, Chapter 6; EC 1130-2-212, dated 23 Apr 1999; EC 1130-2-213, dated 1 Oct 1999; EC 1130-2-214, dated 22 Apr 2002; and Recreation Policy Letter 97-02, dated 20 May 1997.

6-2. Policy. It is the policy of the U.S. Army Corps of Engineers that:

a. Major Subordinate Commands (MSC) and District Commands are delegated authority to implement the citation authority regulatory provisions at Civil Works installations set forth in PL 91-611. The district commander is responsible for ensuring adequate order, discipline and protection of resources at Corps projects. For the purposes of this regulation, the title park ranger applies to all individuals having visitor assistance responsibilities and/or authorized to have citation authority. The term operations project manager (OPM) includes natural resources manager, lake manager and park manager titles throughout the course of this text for consistency.

b. The protection of facilities or the enforcement of rules shall always be secondary to the safety of Corps personnel, contract employees and visitors. Operations project managers and park rangers shall strive to be visible to the public, primarily to help and assist them, and secondarily, to enforce 36 CFR Chapter III, Part 327 (Title 36). In no case shall this enforcement portray an aggressive law enforcement image.

c. In the acquisition of land at Civil Works installations, the Corps of Engineers obtains proprietary interests only. Individual states and their political subdivisions retain the statutory authority, and inherent responsibility, to enforce state and local laws. State and local agencies establish, regulate and enforce all state and local laws. The role of the park ranger is defined as a regulation enforcer with full citation authority of Title 36. Available enforcement options include visual presence, verbal warnings, written warnings, collateral forfeiture citations and mandatory appearance citations. Available use of force options are limited to verbal persuasion/verbal detention and self defense measures, including unarmed self defense and, where authorized, the use of an approved chemical aerosol spray (Oleoresin Capsicum).

d. The authority of operations project managers and park rangers is limited to the enforcement of rules and regulations as designated in Title 36, and does not extend to arrest authority or the enforcement of state and local laws, including game laws. This authority is applicable to:

- (1) All water areas of any water resource development project administered by the Chief of Engineers, without regard to ownership of underlying land;
- (2) All lands owned in fee by the Federal Government; and
- (3) All facilities of any such water resource development project.

ER 1130-2-550  
30 Aug 08  
(Change 4)

e. Operations project managers and park rangers are employed as natural resource, recreation, environmental, and public relations specialists, and are not law enforcement officers.

(1) They cannot arrest, search or seize individuals or their property in the course of these duties. An operations project manager or park ranger may request visitors to stop but cannot physically detain them.

(2) Corps employees are prohibited from carrying, transporting or using weapons, stun-guns, nightsticks, or other similar equipment normally associated with law enforcement.

(3) Park rangers, and other qualifying employees, may be authorized to carry and use Oleoresin Capsicum (Pepper Spray) for self-defensive purposes as stipulated in Chapter 6 of EP 1130-2-550 and Appendix K. Implementation of this policy is at the option of the Major Subordinate Commander who may delegate this authority to the District Commands.

(4) Corps employees within the Natural Resources Management (NRM) Program may purchase and wear protective body vests at their own discretion and at their own expense, so long as it is discreet, worn inside the clothing, and is in accordance with all uniform guidelines.

(5) The use of light bars, radar guns, speed detectors and chasing vehicles or using hot pursuit techniques against alleged violators, on or off Corps property, is prohibited.

(6) Major Subordinate Commands and District Commands may purchase and authorize the use of tactical utility belts on an optional basis for Corps employees authorized to wear the Natural Resources Management (Park Ranger) uniform. Utility belts must be nylon, black in color and not exceed 2 1/2 inches in width. Any equipment carrying devices placed on the belt must be black, match the style of the utility belt and be approved by the operations project manager. Leather utility belts are not authorized. Utility belts are not furnished under the NRM Uniform Program contract and should be purchased using district or project Operations and Maintenance (O&M) funds.

f. The use of Title 36 citation authority shall be considered one of many tools for use in management of water resource development projects. The lowest level of enforcement shall be used to resolve a problem. Maximum use of oral and written warnings shall be made for minor infractions. Employees with citation authority shall, in order of priority, attempt to resolve the problem by effective communication, verbal warning, written warning, collateral forfeiture citation, and mandatory appearance citation. Normal citation procedures are provided in Chapter 6 of EP 1130-2-550. Alternative management techniques, in addition to the issuance of citations, should be considered in the implementation of the Visitor Assistance Program. A list of alternative management techniques that have proven effective at reducing visitor problems are included in Appendix G of EP 1130-2-550.

g. Natural Resource Management program staff shall receive training in accordance with Chapter 6 of EP 1130-2-550, Appendix E and EP 690-2-2, Career Development Guide for Civil Works Natural Resources Management Team Members. Operations project managers are responsible for ensuring that permanent, seasonal and temporary park rangers with Visitor Assistance responsibilities receive the prescribed training. Temporary employees who perform Visitor Assistance duties and enforce Title 36 must receive the same Visitor Assistance training provided to permanent and seasonal park rangers with similar duties.

h. All personnel with operations project manager, park ranger and/or visitor assistance managerial duties shall normally have citation authority (optional for operations project managers). Authorized personnel will be issued ENG Form 5036-R, Certificate of Authority to Issue Citations, in accordance with Chapter 6 of EP 1130-2-550. A new ENG Form 5036-R and badge must be issued (with a revised date) to employees who transfer to a permanent position in another district to maintain citation authority. Badges are accountable property and must be returned to the appropriate supervisor when the employee leaves the district. A new ENG Form 5036-R and badge are not required for permanent and seasonal employees who transfer within the same district. Districts must revoke ENG Form 5036-R and badge for any employee who leaves employment within the district upon transfer or termination. No individual shall be given authority to issue citations or written warnings without completion of the required training. Corps personnel who violate the policies of this regulation or abuse their authority shall, at a minimum, have their citation authority suspended.

i. It is a federal criminal offense to forcibly assault, resist, oppose, impede, intimidate, interfere with, attempt to kill or kill any civilian official or employee of the Corps of Engineers assigned to perform investigations, inspections, law or regulatory enforcement functions, or field-level real estate functions while in the performance of his/her official duties (18 USC 1114.) Procedures to follow in the event of an assault are identified in Chapter 6 of EP 1130-2-550.

j. Cooperative law enforcement contracts and agreements, as prescribed in Chapter 7 of this regulation, shall be used to the maximum extent practical. Maximum use of local law enforcement services, within resource limitations, shall be made at areas which have a history of excessive violations and during those periods when rangers are not readily available.

k. Corps personnel, while on duty, shall not be deputized by law enforcement agencies. Corps personnel who are deputized or commissioned by any law enforcement agency may not perform the duties of that office on or off Civil Works installations during duty hours or while wearing the Corps uniform. Corps personnel are also prohibited from performing the duties of a deputized or commissioned law enforcement officer on Civil Works installations during their off-duty hours.

l. Personnel performing duties associated with the Visitor Assistance Program will wear the complete uniform as prescribed in Chapter 8 of this regulation including the park ranger badge if citation authority has been granted. A citation authority identification card (ENG Form 4710) or a reduced copy of ENG Form 5036-R, Certificate of Authority to Issue Citations, will be carried while on duty by all persons with designated citation authority. MSC commanders will requisition badges from HQUSACE (CECW-CO-N). Personnel who issue citations while out of uniform will be considered to be working within the scope of their duties, regardless of their on-duty or off-duty status at the time. Any enforcement action taken out of uniform will be reported to the immediate supervisor within 24 hours.

m. Vehicle, radio and equipment requirements shall be in accordance with Chapter 6 of EP 1130-2-550.

n. A public information program, implemented by the operations project manager, shall be maintained to notify and ensure public understanding and support of the Visitor Assistance Program. Title 36 shall be posted on appropriate bulletin boards at Civil Works installations and made available to the public. News releases, interpretive programs, off-site outreach programs and other information systems shall be utilized to inform and educate the public of significant changes in rules and regulations, including project restrictions. As part of the Operational Management Plan (OMP) each project

ER 1130-2-550  
30 Aug 08  
(Change 4)

shall outline a plan of action regarding public relations as a continuation of communications with the public.

o. Preventive vaccination, education and exposure treatment for blood-borne pathogens as governed by EM 385-1-1 and 29 CFR 1910.1030 is highly recommended for park rangers and other personnel with visitor assistance responsibilities, as detailed in Chapter 6 of EP 1130-2-550. Preventive vaccinations, education and exposure treatment will be provided by the Corps at no cost to the employee, and are not a condition of employment.

p. All USACE commands having responsibility for Civil Works functions are authorized to participate in the "Corps Watch" property protection program as stipulated in separate guidance. This program is designed to reduce and deter property damage at Civil Works projects through the use of a national toll-free property protection hotline. Witnesses who provide information leading to the arrest and prosecution of perpetrators may be eligible for a monetary award.

ER 1130-2-550  
15 Nov 96

## CHAPTER 7 - COOPERATIVE AGREEMENTS FOR LAW ENFORCEMENT SERVICES AT CIVIL WORKS WATER RESOURCE PROJECTS

7-1. Purpose. This chapter establishes the policy for the implementation and management of cooperative agreements for increased law enforcement services at USACE civil works water resource projects.

7-2. Policy. In accordance with Section 120, PL 94-587, (90 Stat. 2917), Water Resources Development Act (WRDA) of 1976, as amended by PL 96-536, (94 Stat. 3166), it is the policy of the Corps of Engineers that:

a. District commanders are delegated the authority to contract and/or enter into cooperative agreements with states and their political subdivisions to obtain increased law enforcement services at civil works water resource projects to meet needs during peak visitation periods and to augment the citation authorities granted to the Corps under 36 CFR Chapter III, Part 327 (Title 36). Specific guidance on the establishment of these agreements and the reporting thereof is provided in Chapter 7 of EP 1130-2-550.

b. In addition to the enforcement of state or local laws, Cooperative Agreements for law enforcement services may be used for other related activities such as, but not restricted to, patrols in remote areas, serving bench warrants, fee collection and other services as determined by the Operations Project Manager. The activities included in an agreement depend on what can be negotiated with the law enforcement agency. In no case will agreements include the provision of water safety patrols or the enforcement of state boating laws.

c. Cooperative agreements for increased law enforcement shall be for those projects, or portions of projects, that are operated and maintained by the Corps, and shall be executed in order to supplement Corps staff in performing certain law enforcement activities as defined by the Visitor Assistance Program, per Chapter 6 of this regulation and PL 95-224, (92 Stat. 3), Federal Grant and Cooperative Agreement Act of 1977. Law enforcement services shall not be provided under this program to those outgrant areas operated and maintained by a non-Federal sponsor.

d. In order to provide reimbursement for law enforcement services supplied by a state or local enforcement agency, a cooperative agreement, in conformance with the law enforcement cooperative agreement format specified in Chapter 7 of EP 1130-2-550, shall be executed and approved by the District Commander prior to the provision of such services. Once the agreement is signed, it shall be the Operations Project Manager's responsibility to ensure that the services are administered, managed, and inspected in the same manner and to the same level of quality as any other service-type contract.

e. Cooperative agreements shall be consummated only with those public law enforcement agencies legally empowered to enforce state and local criminal and civil laws on the projects for which increased law enforcement is being sought. Non-Federal law enforcement personnel employed to fulfill the conditions of cooperative agreements for increased law enforcement shall meet all the qualifications, including minimal law enforcement training, required by state and local laws and regulations.

f. The cooperator shall provide personnel, equipment and supplies which are required to

ER 1130-2-550  
15 Nov 96

provide the increased law enforcement services agreed upon with the Corps. The Corps shall not reimburse the cooperator for the purchase of any equipment or supplies desired by the cooperator for use under this program. However, the Corps shall reimburse the cooperator for the reasonable costs incurred in the rental or use of such equipment which is allocated to the work performed under the agreement. Such costs may include: (1) a depreciation or use allowance for such equipment as determined by the service life evaluation system used by the cooperator, and (2) the costs of necessary maintenance and repair of the property which neither adds to its permanent value nor appreciably prolongs its intended life, but keeps it in efficient operating condition.

g. State and local law enforcement agencies generally have the same authorities and law enforcement responsibilities on lands administered by the Corps as they do elsewhere in their respective jurisdictions. Because of this, requests by a District Commander, or authorized representatives of the commander, for emergency or unanticipated law enforcement assistance shall normally be considered nonreimbursable. Corps project management authority in no way diminishes or otherwise limits existing law enforcement responsibilities of the state or local government.

h. Non-Federal law enforcement personnel shall not be given Federal citation authority for enforcement of regulations contained in Title 36. Enforcement of Title 36 regulations shall remain the responsibility of the Corps.

i. Funding requests for law enforcement agreements shall be included as part of the O&M budget submittal for each fiscal year. HQUSACE (CECW-ON) shall issue MSC funding authority ceilings annually. Section 120(b) of PL 94-587, as amended, authorizes a maximum appropriation of \$10,000,000 per fiscal year for cooperative agreements for increased law enforcement.

j. Fiscal year data will be compiled and entered into the Natural Resource Management System (NRMS) as defined in Chapter 12 of EP 1130-2-550.

ER 1130-2-550  
Change 2  
1 Mar 02

## CHAPTER 8 - UNIFORMS FOR NATURAL RESOURCES MANAGEMENT PROGRAM STAFF

8-1. Purpose. This chapter establishes the policy on uniforms for Natural Resources Management (NRM) personnel, and authorizes an initial uniform allowance and replacement allowances for personnel required to wear the uniform. Uniforms for NRM Maintenance Personnel and Lake Contract Maintenance Inspectors are specified in Chapter 14 of this regulation. This Chapter supersedes the 15 November 1996 edition of ER 1130-2-550, Chapter 8 and Appendices J, K and L.

### 8-2. Policy.

a. The following NRM personnel are authorized to wear the uniform and shall wear the prescribed uniform components on a daily basis when performing NRM duties:

- (1) Park Rangers
- (2) Park Aides, visitor center staff and guides.
- (3) Park/Resource/Lake Managers (unless authorized to wear appropriate civilian attire by the Chief, Operations Division).

b. The following NRM personnel are also authorized to wear the uniform:

(1) NRM specialists including but not limited to: foresters, fishery and wildlife biologists, outdoor recreation planners, environmental compliance coordinators and landscape architects working at water resource projects.

(2) District Office NRM staff as determined by the Chief, Operations Division.

(3) Administrative personnel at water resource projects who perform receptionist duties as determined by the Chief, Operations Division.

(4) Operations Managers who have citation authority and are performing NRM duties, as determined by the Chief, Operations Division.

c. Volunteers, contractors or Corps of Engineers personnel assigned to positions not included in the above list are not authorized to wear, and shall be prohibited from wearing all or any portion of the uniform.

d. Temporary personnel shall be provided the class of uniform (B, C, D) that is appropriate for their primary work assignment.

e. Uniform classes shall be designated B, C, and D in accordance with the following descriptions. See EP 1130-2-550, Chapter 8 for complete description of all uniform components and wear requirements for each uniform class. All Corps of Engineers NRM uniform items, badges, insignia, and patches are for official use, and only by persons authorized to wear the uniform. Personnel requiring or wanting a method to identify themselves as Corps of Engineers employees, and who are not authorized to wear the

ER-1130-2-550  
Change 2  
1 Mar 02

uniform may obtain a Corps of Engineers nameplate through the uniform contractor by local purchasing procedures.

(1) Class B - Duty Uniform. The Class B Duty Uniform is the prescribed daily uniform to be worn by authorized NRM personnel as identified in paragraph 8-2a and 2b. The Duty Uniform is divided into the following four categories: Daily Wear, Formal Wear, Ceremonies and Court, Maternity.

(2) Class C - Work Uniform. The Class C Work Uniform may be worn by NRM personnel at field office areas, only during special work situations, which are approved in advance on a case-by-case basis by the Park/Resource/Lake Manager. This uniform shall not be worn when meeting the public is the principal duty assignment. It is not to be considered as the daily uniform.

(3) Class D - Special Use Uniform. The Class D Special Use Uniform may be worn by NRM personnel at field areas only when engaged in the following specific work situations: boat patrol, beach patrol, bicycle patrol, and beach/boat interpretive programs, which are approved in advance on a case-by-case basis by the Park/Resource/Lake Manager.

f. Uniform procurement shall be by means of a centralized uniform distribution contract which provides a single source of uniform supply. The uniform supply contract shall be reviewed annually and updated as necessary by Headquarters, Natural Resource Management Branch (CECW-ON). Detailed guidelines on uniform procurement, accounting and other administrative requirements are contained in EP 1130-2-550, Chapter 8.

g. Uniforms shall be supplied through a credit allowance system managed by the centralized uniform distribution contractor. The allowance may or may not be sufficient to defray all uniform costs. Supervisors may require that personnel procure additional official uniform items from the approved supplier at their own expense. Initial and replacement allowances shall be provided in accordance with the provisions of PL 98-63, as amended.

h. Personnel authorized to wear the NRM uniform under this regulation are prohibited from wearing uniform components from other uniform programs, including the Operations and Maintenance Uniform Program as prescribed in Chapter 14 of this regulation. Outdated NRM uniform items are also prohibited. As uniform items are replaced, personnel will be notified by Headquarters, Natural Resource Management Branch (CECW-ON) when the replaced items are no longer authorized for wear.

i. Certain items of apparel such as shoes and safety equipment are not furnished or covered by uniform allowances. The field office, either through local purchase or District office central procurement, will provide those individuals authorized to wear the uniform with the following approved items or services as needed for the performance of their duties:

(1) Black, plain toe, polished, safety dress shoes or boots (suitable for both office and all weather field applications).

(2) Black, plain toe, all weather safety work boots for wear with Class C uniforms.

(3) Black deck/athletic shoes suitable for wear with Class B, C and D uniforms while on boat, beach, or bicycle patrol.

ER 1130-2-550  
Change 2  
1 Mar 02

- (4) Black or white bicycle helmets for wear during bicycle patrol.
  - (5) High-visibility orange vests (snap-on, tie-on, etc.).
  - (6) U.S. Coast Guard approved flotation coat and/or life vests, high visibility orange color.
  - (7) Belt type key holder.
  - (8) Badge holder.
  - (9) Personal Protective Equipment (hard hats, ear protection, work gloves, etc.)
  - (10) Alterations of uniforms as deemed necessary by the supervisor and only when the employee has been unable to obtain a properly fitted uniform from the uniform supplier.
- j. New personnel who are required to wear the prescribed uniform shall obtain, or be furnished, the necessary uniform items as soon as practical after entering on duty. Applicants who are applying for a uniformed position shall be made aware of the uniform requirements prior to hiring.
- k. Uniformed individuals are responsible for their professional appearance and shall wear the uniform in a manner that commands respect for both themselves and the Corps of Engineers. Supervisory personnel are responsible for the enforcement of appearance standards as prescribed in this regulation and in EP 1130-2-550, Chapter 8. Wearing the uniform in accordance with these standards is a condition of employment, and shall be included as an element in the uniformed employee's Total Army Performance Evaluation System (TAPES) individual performance standards. The supervisor's enforcement responsibilities and personal uniformed appearance shall be included as evaluation elements on his or her TAPES performance standards.
- (1) Exceeding the element can be accomplished by consistently wearing the uniform in compliance with the regulation, and/or going beyond the standard. Examples of exceeding the standard include: regularly ironing and/or starching the uniform, consistently having polished shoes and wearing proper uniform components, and consistently presenting a professional uniformed ranger image.
  - (2) Meeting the element can be accomplished by regularly wearing the uniform in compliance with the regulation. All items are worn correctly and in the appropriate situations. Examples of meeting the standard include: occasionally having unpolished shoes, wrinkled shirts, and/or trousers without creases.
  - (3) Needs Improvement would result when the employee is often out of compliance with the uniform regulation. Examples include: Mixing of the different classes of uniforms (i.e. wearing the baseball cap with the duty uniform when not on boat patrol), failing to wear a tie with the long sleeve shirt when in formal situations and/or often having unpolished shoes, wrinkled or shabby uniforms.
  - (4) Failing the element would result when the employee is regularly out of compliance with the uniform regulation. Examples include: wearing unauthorized items with the uniform, wearing Class C or D uniforms on a daily basis, consistently wearing torn, soiled or shabby uniform components.

ER-1130-2-550

Change 2

1 Mar 02

1. The badge will be centrally procured and transferred from CECW-ON to each Major Subordinate Command/Division (MSC) and Division NRM office. Major Subordinate Commands and District offices shall maintain property records to assure the accountability of all assigned and unassigned badges. Individuals who are transferred to other positions outside of the MSC/District, or no longer have citation authority, shall return their badges to the issuing office. Badges that become unduly tarnished or scratched may, within local procurement procedures, be taken to a local vendor for refinishing. The cost of this service will be charged to the project.

m. The National Uniform Committee of the NRM Program shall function as an advisory committee. The committee shall provide field input and program recommendations to CECW-ON, submit draft regulation changes, and revise contract specifications.

(1) Each CONUS MSC (Continental United States Major Support Command) shall be represented on the committee. A mixture of MSC, District and Project personnel is required. Meetings shall be called on an as-needed basis. The committee members shall serve for a period of time determined by mutual agreement between the chairman and CECW-ON or for a period of six years. Replacement shall be on a rotational basis to avoid a large turnover of membership at any one time. The uniform committee chairman shall forward all nominations to CECW-ON for consideration and approval. The committee chairman shall serve for an indefinite period, with the length of duty to be determined by mutual agreement between the chairman and CECW-ON.

(2) Substitutions or deviations from the uniform specifications prescribed in EP 1130-2-550, Chapter 8 require prior approval of CECW-ON. Natural Resource Management personnel may recommend program changes, regulatory changes, specific substitutions or new uniform items to the District Uniform Coordinator. District Uniform Coordinators shall forward all appropriate comments to the division uniform committee representative for consideration at the next scheduled uniform committee meeting. After proper review, the proposal may be forwarded to CECW-ON for consideration.

## CHAPTER 9 - RECREATION USE FEES

9-1. Purpose. This chapter establishes the Recreation Use Fee Program at civil works water resource projects.

9-2. Goals. The goals of the recreation use fee program are:

- to recover a portion of the cost of administering, operating, maintaining and improving specialized recreation facilities, services, or supplies;
  
- to distribute public use more effectively to preserve resources and reduce overcrowding;
  
- to support the national economy through the provision of quality recreational experiences;
  
- to control facility use to deter incidences of vandalism and other disruptive behavior;
  
- to foster a responsible user ethic among recreation users.

9-3. Policy. It is the policy of the U.S. Army Corps of Engineers that fees shall be charged for the use of specialized recreation sites, facilities and services provided by the Corps.

a. Setting Fees. 16 USC 4601-6a provides that users of specialized sites, facilities, equipment, or services provided at Federal expense shall be assessed fair and equitable fees, with consideration for the following:

- (1) Direct and indirect amount of Federal expenditure.
  
- (2) Benefit to the recipient.
  
- (3) Public policy or interest served.

ER 1130-2-550

Change 3

15 Aug 02

(4) Comparability with recreation fees charged by other Federal and non-Federal public agencies and the private sector within the service area of the management unit at which the fee is charged.

(5) Economic and administrative feasibility of fee collection.

(6) Other pertinent factors such as improved security, reducing vandalism, protection of resources, and improving visitor contact.

b. Signage. All areas designated as recreation use fee areas shall be marked with appropriate signs that provide necessary instructions to users of the area with regard to collection of fees. The official U.S. Fee Area symbol shall be displayed at the entrance to designated "use fee areas."

c. Failure to Pay. Persons failing to pay established fees will be subject to citation under 36 CFR 327.23, Recreation Use Fees.

d. Entrance Fees. Section 210 of the flood Control Act of 1968 (16 USC 460d-3) provides that no fee will be charged for entrance to any Corps operated area. The Corps of Engineers does not sell or accept Golden Eagle Passports, the National Park Pass, or any State or local park passes.

e. Special Recreation Use Fees (SRUF). All recreation use fees collected will be deposited into the special account in the Treasury established for the Corps of Engineers under the Land and Water Conservation Fund Act. Subject to appropriations, funds shall be returned to the water resources development project at which the fees were collected. Funds generated from collecting recreation use fees are returned in O&M, General appropriations for operation, maintenance and improvement of recreation sites and facilities. The construction of new recreation facilities in existing areas or renovation and/or improvement of existing facilities may be accomplished with these funds if the goal of providing quality public recreation experiences with the most cost efficient management of water resource development projects can be met. New recreation areas may not be constructed without a cost share sponsor.

f. Public Relations. District Commanders will notify congressional representatives, as appropriate, of the use fee program in their congressional districts. In the interest of

informing the public of the use fee program, public relations activities will be conducted to disseminate information regarding this program before collection of fees begin.

g. Increasing Campsite Use. It may be appropriate to offer limited free camping at non-reservable campsites. The purpose of offering free camping is as a short-term promotional effort that will provide long-term benefits to both the Corps and the public by increasing the use of Federal facilities. Written documentation should include rationale for providing the free camping and number of coupons distributed. Free camping should be limited so as to avoid any perception that distribution involves a major give-away of Government resources.

#### 9-4. General Fees.

a. Fee Schedules. District recommendations for proposed use fees for the next two years will be submitted to the Major Subordinate Command (MSC) Commander no later than 1 August each year. District commanders shall assess seasonal visitation patterns of individual fee areas to determine the period during which a fee program shall be in effect. It is anticipated that fees shall be charged at some areas throughout the summer months, while at other areas fees shall be collected throughout the year. The MSC Commander will review and approve or disapprove the recommendations.

b. Guidance. Comparability studies will be conducted annually. Fees charged shall be based upon distinguishable differences between Corps facilities and services and those facilities and services provided by other Federal agencies, non-Federal agencies, and the private sector in the same service area. Specific guidance and criteria for researching and evaluating fees at other local recreation sites, for evaluating and determining fees for Corps sites, and for approving, reviewing, and auditing annual district fee schedules is found in Chapter 9, paragraph 9-3.c. of EP 1130-2-550.

c. Volunteers. Volunteers may be provided campsites at projects where their volunteer service occurs and not be required to pay a use fee. Day use fees may be waived for volunteers conducting recognized volunteer service on the day it is performed.

#### 9-5. Camping Fees.

a. Applicability. A fee will be charged and a permit issued for single user unit campsites, group camp areas and specialized facilities in accordance with Appendix M of EP 1130-2-550. Camping fees will be charged on a per-site basis. Each campsite shall be rented to a single user/unit party, which does not exceed the established carrying capacity for

ER 1130-2-550

Change 3

15 Aug 02

persons, vehicles, or camping equipment for that site. These facilities shall be available on a first-come, first-served basis unless they are currently reserved through the NRRS™.

b. Carrying Capacity. Using a comparison of all components necessary, the Operations Manager shall determine the carrying capacity, in numbers of persons, vehicles, and camping equipment, for each campsite under his/her management. Except in unusual circumstances, this carrying capacity shall not be exceeded.

c. Variable Pricing. Variable pricing of fee campsites within a single campground shall be permitted based on documented differences in the quality or desirability of certain sites due to location or campsite amenities. Variable pricing for camping use shall also be permitted based on time differences, such as different days of the week, different seasons, or holidays.

d. Utilities. At sites with utility hookups, a charge for the utilities shall be included in the use fee regardless of whether they are used. No free utility services shall be provided.

e. Visitors. Visitors to registered campers in fee campgrounds may be charged use fees for use of specialized facilities. If charged, the fee shall not exceed 50 percent of the single user unit campsite fee and will also entitle the holder to use any or all day use facilities without paying additional use fees at the same project, on any day for which the permit is valid.

f. Camping Permit. The camping permit entitles the holder to use a designated campsite and related support and recreation facilities within the boundaries of the camp area where the designated campsite is located. It will also entitle the holder to use any or all Corps-operated day use facilities without paying additional use fees at the same project, on any day for which the permit is valid.

#### 9-6. Day Use Fees.

a. Criteria. Day use fees may be collected at developed recreation areas and facilities including swimming beaches and boat ramps but not at areas which include only a boat ramp and courtesy dock. Fees will not be charged for the use or provision of visitor centers, drinking water, wayside exhibits, roads, scenic drives, overlook sites, picnic tables, toilet facilities, surface water areas, undeveloped or lightly developed shoreline, or general visitor information.

(1) Day use fees will be charged where there is reasonable expectation that revenue will exceed costs of collection, to include implementation costs. Managers may choose to assess their fee collections programs, revenue and collection costs on a per project basis rather than a per park basis. The cost to collect includes (a) direct, on-project costs incurred for fee collection and remittance and (b) implementation costs amortized over the design life of the improvements. Cost and revenue estimates should be reviewed periodically by MSC commanders to assist in determining appropriate adjustments to the project fee collection program.

(2) No day use fee will be charged for children 12 years of age or younger.

b. Annual Day Use Passes. An Annual Day Use Pass may be purchased for \$30.00. This pass permits the holder and all accompanying passengers in the vehicle to use any or all boat launch ramps and/or designated, developed swimming beaches at any Corps operated recreation area at any Corps project for that calendar year, except at facilities located within a fee campground and reserved exclusively for the use of campers. The annual pass is a decal, which is affixed to the back of the interior rear view mirror. On vehicles having no interior rear view mirror, the decal may be affixed at an alternate location, such as the left front bumper, the back of the left exterior rear view mirror, or the left front windshield, if permitted by the state Department of Motor Vehicles. Golden Age/Golden Access 50 percent discounts apply to the purchase of Annual Day Use Passes.

(1) Sales of Annual Day Use Passes and Golden Age Passports at outdoor recreation shows, special events, fairs, etc. is encouraged.

(2) The selling of annual passes utilizing agreements, such as Challenge Partnerships with local businesses, cooperative associations or vendors is encouraged. Accounting procedures must be established at the local level to account for all sold and unsold passes as well as fee collections. Vendors are required to sell passes without markup.

(3) Annual Day Use Passes may be sold through the mail. Golden Age/Access discounts may be applied to annual passes purchased by mail, phone or fax if the applicant furnishes a photocopy of their Golden Age/Access Passport. Cash will not be accepted as payment for Annual Passes purchased by mail. Under no circumstances will a customer be asked to provide a credit card number via email.

(4) An additional annual pass may be purchased by the same individual for a reduced fee of \$15.00 for a second vehicle. Only one duplicate pass may be purchased at the \$15.00 fee for each full price Annual Day Use Pass purchased. The duplicate pass may be purchased

ER 1130-2-550

Change 3

15 Aug 02

at the same time as the original pass or at a later date if proof of original purchase is presented and no duplicate has been issued. The duplicate will be identified at the time of purchase by punching a hole or marking an "x" in the box marked "D".

(5) Annual Day Use Passes removed from vehicles that have been sold or destroyed will be replaced at no charge if the original pass is returned. In the absence of a returned pass, the full fee will be charged for a new annual pass. Passes lost due to vehicle theft will be replaced at no cost if proof of theft, such as police report or insurance document is provided.

c. Day Use Fee Alternatives. Fees will be assessed either on a per facility basis or a per recreation area basis at any particular area. Only one alternative will be used within a single area. Fees assessed on a per facility basis allow for more detailed tracking of revenues.

(1) Per Facility - Boat Launching / Swimming.

(a) A day use fee of \$3.00 will be charged to use a boat launch ramp in a Corps operated day use recreation area. The fee will be charged at recreation areas having a boat ramp and one or more of the following facilities: restrooms, picnicking facilities, swimming facilities, or other developed recreation facilities. The boat launch fee will not be charged at boat ramps located in recreation areas which are exclusively campgrounds and reserved exclusively for the use of campers, or in recreation areas which provide only a boat ramp and courtesy dock. Payment of this fee entitles the user to launch a boat at any Corps operated recreation area at any Corps project on that day, except at boat ramps located within a fee campground and reserved exclusively for the use of campers.

(b) A day use fee of \$1.00 per person for each person over the age of 12, whether walk-in or in a vehicle, up to \$4.00 per vehicle, will be charged for the use of a designated, developed swimming beach in a Corps operated day use recreation area. However, if a vehicle has more than eight passengers over the age of 12, there will be a fee of \$1 for each additional individual over the age of 12. The swimming beach fee will be charged at Corps-operated, designated, developed swimming beaches, with the exception of swimming beaches located in recreation areas which are exclusively campgrounds and reserved exclusively for the use of campers. A designated, developed swimming beach is properly signed, buoyed and delineated in accordance with established design and safety requirements and may have one or more of the following attendant facilities: restrooms, change houses, picnicking facilities, or other developed recreation facilities. Payment of this fee entitles the user to use any developed beach at any Corps operated recreation area at any Corps project on that day, with the exception of swimming beaches located within fee campgrounds and reserved exclusively for the use of campers.

(2) Area Fees.

(a) The option of charging a single fee for the use of all day use facilities in an area is simpler to administer and enforce. This option may be utilized where a boat ramp and/or a swimming beach exist in the same fee area. It expedites the fee collection process and reduces customer delays.

(b) The area fee is a facility use fee, not an entrance fee. Golden Age and Golden Access Passports 50 percent discounts apply. Golden Eagle Passports do not apply.

(c) The area fee will not exceed \$4 per vehicle or \$1 per person, if walking into the area.

d. Native American Indian Tribes. The District Commander may waive all day use fees for boat launching or swimming beaches for Federally recognized Native American Indian Tribal members consistent with rights reserved to the Tribes under law or treaties.

9-7. Special Use Fees.

a. Applicability. The charging of a day use fee at a recreation area does not preclude the charging of a fee for the reservation of a specialized facility or for a special event within the area. Neither does the charging of a fee for the reservation of a specialized facility or special event preclude the collecting of the established day use fee for the recreation area. Operations Managers should consider local situations when determining fee applicability.

b. Special Facility Use Fee. A fee may be charged for the use of specialized recreation facilities (e.g., group picnic shelters, multipurpose courts, amphitheaters, athletic complexes, etc.). Since this is a use fee, Golden Age and Golden Access discounts may apply.

c. Special Event Permit Fee. A basic fee of \$50 will be charged for each special event permit issued. Additional fees may be assessed in accordance with EP 1130-2-550, Appendix N. Activities for which special event permits may be required include, but are not limited to, water carnivals, boat regattas, music festivals, fishing tournaments and dramatic presentations. Since this is a permit fee, Golden Age and Golden Access discounts do not apply.

ER 1130-2-550

Change 3

15 Aug 02

(1) Special Event Permits shall include the prohibition relating to discrimination (see Appendix N of EP 1130-2-550 for text). Requests for special events permits citing "special circumstances" for participation requiring gender or age discrimination must be well justified. If the Operations Manager considers the justification adequate, he/she shall forward the request to the District Commander or higher authority for approval.

(2) Specific procedures for issuing Special Event Permits are included in Appendix N of EP 1130-2-550.

d. Special Activity Permit Fee. A Special Activity Permit for recreational activities on Corps land may be issued in accordance with Chapter 9, paragraph 9-6.d. of EP 1130-2-550. A permit fee may be charged to cover the administrative cost of the program. Since this is a permit fee, Golden Age and Golden Access discounts do not apply.

9-8. Other Equipment, Facilities and Services. Fees may be charged for outdoor recreation related equipment and services provided at government expense for visitor use. Examples include firewood, ice, laundry machine use, shower use, dump station use, parking, and equipment rentals, such as rent-a-tent.

a. Discretion should be used in charging fees for other equipment and services to assure visitors aren't charged more than once for the same services. For instance, paying campers using services such as showers and dump stations should not be charged separate fees for these services. In such cases, the availability of these services is appropriately considered when the camping fee is established. Separate shower or dump station fees may be charged for day users or transient visitors not paying camping fees.

b. Parking fees in campgrounds may be charged for users' vehicles parked in designated, improved parking spaces other than the campsite. No separate parking fees may be charged for user vehicles parked on the campsite in accordance with the established vehicle carrying capacity.

c. Fees should be established under this section only when a discrete, separate service is offered to visitors at government expense. This service must be directly and clearly related to the visitor's recreation experience.

d. Care should be taken to avoid a multiplicity of fees, to assure the costs to provide the service and collect the fees are not prohibitive, and to avoid the appearance of excessive fee collection.

9-9. Discounts.

a. Applicability. Golden Age and Golden Access Passports shall be made available to the public at all projects where use fees are charged. Projects without fee areas and districts or division offices may also issue these passports. Both passports are available to Corps offices from the USACE Publications Depot. The Corps does not issue or honor Golden Eagle Passports or National Park Passes.

(1) Lifetime Golden Age Passports are available for a fee of \$10.00 to all United States citizens and permanent residents 62 years of age and older. Applicants must appear in person and sign the Passport upon receipt, in the presence of the fee collector. Deteriorated cards will be replaced free of charge provided the old card is returned in exchange. Replacement of lost cards will require payment of the \$10.00 fee.

(2) Free, lifetime Golden Access Passports are available to United States citizens or permanent residents of the United States who have been medically determined to be blind or permanently disabled and are eligible to receive benefits under Federal law. Applicants must appear in person and sign the Passport upon receipt, in the presence of the fee collector. Complete procedures may be found in Chapter 9 paragraph 9-8.c. of EP 1130-2-550.

(3) A Golden Age or Golden Access Passport shall entitle the permittee and any person accompanying him/her in a single, private, non-commercial vehicle (or alternately, the permittee and his/her spouse, children, and parents where entry to the area is by any means other than a private, non-commercial vehicle) to a rate of 50 percent of the established use fees such as fees for swimming, boat launching, camping, and other equipment, facilities and services as described in paragraph 9-8 above. This 50 percent reduction is also applicable to use fees assessed passport holders who are visitors of registered campers and shower and dump station users. The reduction does not apply to group use fees unless all members of a group have such passports. Golden Age Passport or Golden Access discounts do not apply to Special Event or Special Activity fees. The reduction does not apply to fees charged by leaseholders or concessionaires.

(4) One original and one duplicate annual day use pass decal may be purchased by each Golden Age/Golden Access Passport holder. The decals will be identified at the time of purchase as discount Passport by punching a hole or marking an "x" in the box labeled "G". The duplicate will also be marked with an "x" in the box labeled "D".

ER 1130-2-550

Change 3

15 Aug 02

b. Documentation. Offices that issue Golden Age and Golden Access Passports shall maintain the required documentation.

(1) ENG Form 4468-R, Golden Age Passport Record (shown in Appendix P of EP 1130-2-550), shall be used to record the recipient's name, evidence of eligibility (drivers license, fishing license, disability card, etc.), Golden Age or Golden Access Passport number, the issuing official, and the date of issue. Information recorded on ENG Form 4468-R will serve as a record of accountability for the passports issued and shall be maintained for one year.

(2) In accordance with the Privacy Act of 1974, each individual from whom this information is requested must be provided a Privacy Act statement, ENG Form 4468A (shown in Appendix P of EP 1130-2-550).

(3) ENG Form 4840, Golden Age Passport and Golden Access Passport Eligibility Statement, shall be completed for each passport issued if the applicant fails to provide documentation. Specific guidance on completing these forms is provided in Chapter 9, paragraph 9-8.b. of EP 1130-2-550.

#### 9-10. Accounting.

a. Cost of Remittances. Various options exist to pay for cashier's checks, bank drafts, and money orders to remit fees. Further guidance may be found in Chapter 9, paragraph 9-9.e. of EP 1130-2-550 and in ER 37-2-10.

b. NRRS™ Parks. In parks using NRRS™, fee collections will be transmitted using procedures established in the NRRS™ Operating Procedures Manual.

c. Districts shall provide for the acceptance of credit cards for fee collection whenever feasible.

d. Refunds. Refunds for recreation use fees may be authorized for legitimate reasons at the Operations Manager's discretion. No refunds may be made at the project. No refund will be given for day use fees; fees for other equipment, facilities and services, as described in paragraph 9-8 above; or for annual passes.

(1) Refunds within the NRRS™ are processed according to the current NRRS™ Operating Procedures Manual.

(2) Other refunds may be requested upon presentation, either in person or by mail, of the recreation use fee receipt. If approved, the Operations Manager will forward the request to the servicing finance and accounting office, which will issue the refund. Details on refund request procedures are found in Chapter 9, paragraph 9-9.d.(2) of EP 1130-2-550.

e. Credit Vouchers. Credit vouchers are used to minimize the need to issue refund checks. Vouchers will not be given for day use fees (boat launching or swimming beach). Credit vouchers are not given for fees collected through the NRRS™. Procedures for issuing credit vouchers are covered in Chapter 9, paragraph 9-9.f. of EP 1130-2-550.

9-11. Security Measures. Managers will comply with Engineer regulations governing the security and storage of funds, particularly ER 37-2-10, Accounting and Reporting Civil Works Activities. Options for enhancing the security of personnel handling funds as well as safeguarding funds themselves are found in appendix O and Q and Chapter 9, paragraph 9-10 of EP 1130-2-550.

ER 1130-2-550  
15 Nov 96

## CHAPTER 10 - USE OF OFF-ROAD VEHICLES ON CIVIL WORKS PROJECTS

10-1. Purpose. This chapter establishes the policy for off-road vehicles (ORV) operations on USACE civil works project lands.

10-2. Policy. It is the policy of the Corps of Engineers that:

a. All lands and waters of civil works water resource projects administered by the Chief of Engineers shall be closed to recreational and commercial off-road vehicle use, except those areas and trails specifically designated for such use by the District Commander in accordance with this regulation and EO 11644. "Off-road vehicles" are any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such term excludes (1) any registered motorboat, (2) any military, fire, ambulance or law enforcement vehicle when used for emergency purposes and (3) any vehicle whose use is authorized by the Chief of Engineers, or his properly designated representative, under a permit, lease, license or contract. ORVs operated for "Official Use" by project personnel and/or contractors performing assigned USACE-project related tasks may utilize areas and trails not designated for ORV use by permission of the District Commander.

b. The environmental impacts of such designation for off-road vehicle use shall be assessed, and an environmental assessment or impact statement, as appropriate, shall be prepared in accordance with the National Environmental Policy Act (NEPA).

c. Action regarding persons who abuse the privilege of using designated areas and trails and operating conditions prescribed for the project under these regulations shall be taken under the citation authority program and in accordance with 36 CFR, Chapter III, Part 327. Cooperative agreements with State or local governments for the enforcement of laws and regulations relating to off-road vehicle use shall be entered into where appropriate.

10-3. Responsibilities. District commanders shall:

a. Establish appropriate procedures for evaluating, assessing and designating areas and trails where off-road vehicle use shall, and shall not, be permitted on project lands under their respective jurisdiction. Such designation shall be made utilizing, but not limited to, relevant Corps and other Federal and state guidelines and criteria.

b. Incorporate areas or trails which are designated for off-road use into the project master plans. Supplements to the Master Plan shall be prepared when final designations are made and promptly submitted for approval.

c. Establish procedures to provide the opportunity for full participation by the general public, off-road vehicle user groups, conservation organizations, and other interested public in the selection, designation, and uses of project lands for off-road vehicle use.

d. If necessary, establish additional operating conditions or rules consistent with 36 CFR, Chapter III, specifically for each project, which could include items such as opening and closing dates of areas and trails, daily opening and closing times, and areas which may have unique conditions or hazards.

ER 1130-2-550  
15 Nov 96

## CHAPTER 11 - REGULATION OF SEAPLANE OPERATIONS ON CIVIL WORKS WATER RESOURCE DEVELOPMENT PROJECTS

11-1. Purpose. This chapter establishes the policy for seaplane operations at civil works water resource projects.

11-2. Policy. It is the policy of the Corps of Engineers that:

a. Seaplane operations may be prohibited or restricted at water resource projects, or portions thereof. Prohibiting or restricting seaplane operations in certain portions within a project in no way implies that safety hazards to seaplane operations or to other recreation users may not exist in other portions of such project.

b. The operation of a seaplane at Corps projects is at the risk of the plane's owner, operator, and passenger(s). The responsibility to ascertain whether seaplane operations are permitted, prohibited or restricted at such projects, and portions thereof, is incumbent upon the person(s) contemplating the use of, or using, such waters.

c. The decision to permit operation of a seaplane on any part of a Corps water resource project shall take all safety, environmental, regulatory, and aesthetic aspects into consideration. Consultation with appropriate other Federal, state, and local agencies, including the Federal Aviation Administration (FAA), and local citizens groups shall be conducted during the decision-making process.

d. All operations of the Aircraft while upon the water shall be in accordance with the marine rules of the road for power boats or vessels.

e. No commercial operation of seaplanes from project waters will be allowed without written approval of the District Commander following consultation with and the necessary clearance from the FAA and other appropriate public authorities and affected interests.

f. If seaplane operations are permitted, the Operations Project Manager shall be responsible for ensuring that appropriate procedures are developed in accordance with Chapter 11 of EP 1130-2-550 and implemented at the project. These procedures shall be developed to ensure the safe operations of seaplanes within specific designated project areas.

ER 1130-2-550  
15 Nov 96

## CHAPTER 12 - NATURAL RESOURCE MANAGEMENT SYSTEM

12-1. Purpose. This chapter establishes the policy for the Natural Resource Management System (NRMS), which is a system designed for collecting and analyzing annual USACE recreation facility and natural resource management information.

12-2. Policy. It is the policy of the Corps of Engineers that:

a. An electronic database of project-based natural resource and recreation management data shall be operated and maintained by CECW-ON. This database shall be referred to as the Natural Resource Management System.

b. Each project having an annual visitation of 20,000 visitor hours of use or more shall submit the NRMS data to CECW-ON annually. Specific data descriptions and requirements, as well as guidance on the content, format, and reporting schedules for NRMS data, is provided in Chapter 12 of EP 1130-2-550.

c. The updated NRMS database shall annually be made available to FOAs, and to other official users upon request.

d. Adding new recreation areas, splitting exiting recreation areas into multiple areas, combining multiple recreation areas into one area, deleting a recreation area or changing the name of a recreation area requires MSC-approval with justification prior to incorporating the change into the NRMS. A copy of the MSC approved request and justification will be forwarded to HQUSACE and a second copy forwarded to the national database manager (NDBM) as notification. The district office will assign all new NRMS area numbers.

ER 1130-2-550  
15 Nov 96

## CHAPTER 13 - RECREATION USE SURVEYS

13-1. Purpose. This chapter establishes the policy on the conduct of recreation use surveys at civil works water resource projects.

13-2. Policy. It is the policy of the Corps of Engineers that:

a. Recreation use surveys shall be conducted at water resource projects in order to maintain and report accurate visitation and public use information.

b. Recreation use surveys shall be funded, conducted, and analyzed in accordance with Chapter 13 of EP 1130-2-550.

ER 1130-2-550  
15 Nov 96

## CHAPTER 14 - NATURAL RESOURCE MANAGEMENT MAINTENANCE UNIFORMS

14-1. Purpose. This chapter establishes the policy on uniforms for Natural Resources Management (NRM) Lake Maintenance Personnel and Lake Maintenance Contract Inspectors, and authorizes an initial uniform allowance and subsequent replacement allowances to maintenance personnel required to wear the uniforms.

14-2. Policy. It is the policy of the Corps of Engineers that:

a. Supplying maintenance uniforms is optional at the MSC and district level. However, MSCs and districts that elect to supply maintenance uniforms must furnish the standard uniform identified herein to all projects within a participating district.

b. A standard uniform shall be used for Corps Lake Maintenance Personnel and Lake Maintenance Contract Inspectors working at lake/river projects in the NRM element, Operations Division when on duty under any of the following conditions:

(1) When performing routine or emergency maintenance work.

(2) When ready identification of maintenance personnel will facilitate the performance of their duties.

(3) When required to have frequent contact with the public and identification as a Corps employee is desirable.

(4) Personnel assigned to positions not identified in this paragraph including employees working at the MSC or district levels are prohibited from wearing all or portion of the maintenance uniform.

c. The prescribed uniform is specified in Appendixes T and U (Class B/C Duty/Work Uniforms) and Appendix V (Maternity Uniform) of EP 1130-2-520. Personnel authorized to wear the maintenance uniform under this regulation are prohibited from wearing uniform components from other uniform programs including the Natural Resources Management (Park Manager/Ranger) Uniform, as prescribed in Chapter 8 of this regulation.

d. New maintenance personnel required to wear the prescribed uniform shall obtain, or be furnished, the necessary uniform items as soon as practical after entering on duty. Applicants who are applying for a uniformed position shall be made aware of the uniform requirements prior to hiring. The proper wearing of the uniform shall be a condition of employment and shall be a performance evaluation element for all individuals authorized to wear the uniform. Supervisory personnel shall be responsible for the enforcement of uniform wear standards as prescribed by Chapter 7 of EP 1130-2-520. Individuals shall wear the uniform in a manner that commands respect for both themselves and the Corps of Engineers.

e. Procurement.

(1) Uniforms shall be supplied through a credit allowance system, per Section 164 of Public Law (PL) 98-63. This allowance may or may not be sufficient to defray all uniform-connected costs. District commanders may, at their discretion, require that personnel procure

ER 1130-2-550  
15 Nov 96

additional uniform items from an approved supplier at their own expense. The credit allowance system regulations, current allowance dollar values, and a listing of items covered and not covered by the allowance are documented in Chapter 7 of EP 1130-2-520.

(2) Uniform procurement shall be by means of a centralized uniform distribution contract which provides a single source of uniform supply. The uniform supply contract shall be reviewed annually and updated as necessary by CECW-OD.

(3) Detailed guidelines on uniform procurement and accounting are contained in Chapter 7 of EP 1130-2-520 which includes the prescription of ENG Form 4891 -R, Uniform Allowance, which shall be used to assess and authorize appropriate uniform allowances.

(4) Substitutions or deviations from the uniform specifications prescribed in Chapter 7 of EP 1130-2-520 require prior approval of HQUSACE (CECW-ON) WASH DC 20314-1000. Supervisors and managers may recommend specific substitutions or new uniform items through the district uniform coordinator. After proper review, the proposal may be forwarded to CDR, HQUSACE (CECW-ON) for consideration.

f. MSC Commanders may approve the wearing of uniforms for selected personnel while on duty, and shall have the discretionary authority to:

(1) Determine the specific projects at which personnel will be required to wear the uniform and determine what "class" uniform will be worn by each employee. However, to provide uniformity, all employees in like positions on the same projector site shall be required to wear the same class uniform.

(2) Redelegate this authority to the District Commander.

g. Nothing in this chapter shall be interpreted as overriding applicable Federal, state, and local safety regulations. When there is any question, the safety regulation shall take precedent. Safety shoes, high visibility vests, life jackets, hard hats, and other safety and protective gear are not provided as part of the uniform program. These items are to be provided and worn as stipulated in Engineer Manual (EM) 385-1-1, Safety and Health Requirements Manual, and other applicable regulations.

FOR THE COMMANDER:

2 Appendixes  
See Table of Contents



OTIS WILLIAMS  
Colonel, Corps of Engineers  
Chief of Staff

ER 1130-2-550  
Change 1  
1 Oct 99

## CHAPTER 15 - RECREATION MANAGEMENT SUPPORT PROGRAM

15- 1. Purpose. This chapter establishes policy for the administration and management of the USACE Recreation Management Support Program (RMSP).

15-2. Policy. It is the policy of the Corps of Engineers that:

a. The RMSP shall provide a mechanism for identifying CE national recreation program priorities and address those priorities through valid research, management support, and technical information transfer.

b. The RMSP is designed to provide support for recreation issues or initiatives that have a broad applicability to many Corps Civil Works projects. Reimbursable work is not within the scope of the RMSP. However, issues or initiatives that are limited in applicability can be addressed on a reimbursable basis with funding provided by the local project. The three basic components of the RMSP are:

(1) Management Studies. Management studies are generally long-term activities (greater than or equal to one year) and of regional or national significance.

(2) Management Assistance. Management assistance may be a short-term study (less than one year) or may be on-going assistance in managing a recreation component (e.g., the National Recreation Reservation Service).

(3) Information Exchange. Information exchange includes not only technology transfer but also the distribution of research results to bring about program enhancement.

c. An eighteen member Recreation Leadership Advisory Team (Team) shall be established to provide oversight of the RMSP. Voting members of the Team will consist of representatives from MSC (8), District (4) and Project (4) offices. Two non-voting members will represent HQUSACE and the US Army Engineer Research and Development Center (ERDC). The Team will evaluate all proposals for funding within the RMSP and will recommend funding priorities to HQUSACE (CECW-ON). The Team will meet semi-annually during each fiscal year, preferably during the months of October and April. HQUSACE and ERDC will participate in all team meetings. Specific information on the duties, organizational composition and nomination process is provided in Chapter 15 of EP 1130-2-550.

ER 1130-2-550

Change 1

1 Oct 99

d. The Team will support strategic planning for the CE recreation business program and will serve in an active advisory role to the Chief, Natural Resources Management Branch in HQUSACE.

e. Duties of RMSP Team members will be included as an element in each member's annual performance plan.

f. The RMSP is funded by the O&M General appropriation. HQUSACE will provide conceptual approval (subject to the availability of funds) for all new starts and other program funding adjustments by July of each year. The final approval of the actual work plan will be provided by HQUSACE following the Fall Team Meeting.

g. The ERDC will provide program management support, although studies may be performed by other USACE elements, other agencies, or the private sector.

## CHAPTER 16 – RECREATION DEVELOPMENT POLICY FOR OUTGRANTED CORPS LANDS

16-1. Purpose. This guidance establishes a consistent, nationwide policy that will be applied to evaluate requests for recreation development at Corps water resources development projects and was developed jointly by the Real Estate and Operations Communities of Practice. The Corps intent is to provide public outdoor recreation opportunities that support project purposes and meet the recreation demands created by the project itself while sustaining our natural resources. Depending on specific project legislation, project purposes may also include navigation, hydropower, flood control, and or water supply. Additional statutes can assign missions responsibilities such as fish and wildlife management, and endangered species.

16-2. Applicability. This policy applies to all existing recreation outgrants issued after 6 December 2005 and all new requests for recreation development by Federally recognized Indian Tribes, public (Federal, state and local), private sector and quasi-public entities and individuals at Civil Works water resources development projects. Previously approved development plans for land currently outgranted for recreation development are grandfathered under this policy. When proposed development is not specifically addressed in a previously approved development plan for an existing outgrant instrument, the proposed development will be treated as a new request; however, land availability will not have to be reevaluated. New or existing sublessees that propose recreational development outside the terms and conditions of the current outgrant instrument are considered as a new request. All new requests require a conceptual development plan in sufficient detail to evaluate the proposed recreation development.

### 16-3. Policy.

a. The primary rationale for any future recreation development must be dependent on the project's natural or other resources. This dependency is typically reflected in facilities that accommodate or support water-based activities, overnight use, and day use such as marinas, campgrounds, picnic areas, trails, swimming beaches, boat launching ramps, and comprehensive resort facilities. Examples that do not rely on the project's natural or other resources include theme parks or ride-type attractions, sports or concert stadiums, and stand alone facilities such as restaurants, bars, motels, hotels, non-transient trailers, and golf courses. Normally, the recreation facilities that are dependent on the project's natural or other resources and accommodate or support water-based activities, overnight use, and day are approved first as primary facilities followed by those facilities that support them. Any support facilities (e.g., playgrounds, multi-purpose sports fields, overnight facilities, restaurants, camp stores, bait shops, comfort stations, boat repair facilities) must also enhance the recreation experience, be dependent on the resource-based facilities, be secondary to the original intent of the recreation development and the land base occupied by the outgrant. The Corps will not support private exclusive use of any type of facility.

ER 1130-2-550

30 Mar 09

Change 5

b. Corps policy is to provide outdoor recreation opportunities to the public where there is an unfulfilled demand and a corresponding deficit of those facilities. This shortfall is fulfilled by either the Corps constructing the facilities itself or allowing Federally recognized Indian Tribes, other public (Federal, state and local), private sector, quasi-private entities or individuals to do so on project lands through an outgrant. Accordingly, outgrants that the Corps enters into should not unfairly compete with other established private or public recreational facilities. Existing outgrants with proposed facilities in development plans should be given priority to develop similar facilities within a reasonable timeframe before issuing a new outgrant for like facilities.

#### 16-4. Definitions.

a. Comprehensive Resort – Typically, multi-faceted developments with facilities such as marinas, lodging, conference centers, golf courses, tennis courts, restaurants, and other similar facilities.

b. Conceptual Development Plan – Requestor's or existing lessee's plan for an area of Corps land that shows existing and or proposed facilities, services, and acreage necessary to meet the current and potential public demand and the management and development activities to be undertaken.

c. Master Plan - A conceptual document guiding Corps responsibilities pursuant to Federal laws and regulations to manage the project lands, waters, associated resources, and preserve, conserve, develop, restore and maintain those resources. The primary goals of a Master Plan are to prescribe an overall land and water management plan, resource objectives, land use classifications, and associated design and management concepts. The plan addresses all resources including but not limited to fish and wildlife, vegetation, cultural, aesthetic, interpretive, recreational, mineral, commercial, and outgranted lands, easements and water.

d. Outgrant – Authorizes the right to use Army-controlled real property. It is a written legal document that establishes the timeframe, consideration, conditions and restrictions on the use of Army property. For the purposes of this policy, an outgrant is typically a lease or license authorized by 16 USC 460d, 10 USC 2667 and the general administrative authority of the Secretary of the Army (reference ER 405-1-12, Chapter 8 (Real Property Management) and the forthcoming EC 405-1-80 (Management and Outgrant Programs).

e. Project Level Representative – Person responsible for operations at a project or area level such as lake manager, operations project manager, resource manager, etc.

#### 16-5. Evaluation Criteria.

a. All new requests for recreation development must be in writing and will be reviewed by a district team. At a minimum, the team will consist of a project level representative, Real Estate, Operations, and other district legal/technical elements as appropriate (Engineering, Planning, Regulatory, etc.). Final authority to approve recreation development rests with the District Commander. In the rare circumstance that exceptions to this policy may be warranted,

ER 1130-2-550

30 Mar 09

Change 5

proposals for recreational developments may be forwarded to the Director of Civil Works through the Division Commander for review on a case by case basis.

b. Although these evaluation criteria are integral to any land availability determination, the preparation of the Report of Availability (ROA) will follow the processes established in ER 405-1-12, Chapter 8 (Real Property Management) and the forthcoming EC 405-1-80 (Management and Outgrant Programs), ER 200-2-2 (Procedures for Implementing NEPA) and ER 200-2-3 (Environmental Quality-Environmental Compliance Policies). In addition, the evaluation will be consistent with ER 1130-2-540 (Environmental Stewardship Operations and Maintenance Policies), ER 1130-2-550 (Recreation Operations and Maintenance Policies), and ER 1130-2-406 (Shoreline Management at Civil Works Projects.)

c. The team will evaluate requests for recreation development using the following criteria:

- (1) Consistent with project purposes
- (2) Reasonable connection to the project's natural and other resources
- (3) Consistent with land use classifications and resource management objectives in the Project Master Plan (or supplement thereto)
- (4) In the public interest
- (5) Justified by public demand (market study- See Appendix C)
- (6) Economically viable (feasibility study- See Appendix D)
- (7) Meets the recreation demands created by the project itself while balancing natural resources requirements

d. Routine, minor expansions/requests of previously approved facilities within the lease footprint such as additional campsites at an existing campground, additional marina boat slips, enlargement of a restaurant, additional picnic sites or parking spaces may warrant a streamlined evaluation in accordance with established District procedures.

16-6. Implementation. This policy is effective immediately and supersedes any existing project, district, or MSC policy on evaluating proposed recreation development.



ER 1130-2-550  
15 Nov 96

APPENDIX A  
REFERENCES

- a. PL 88-578, Land and Water Conservation Act of 1965, as amended, (16 USC 4601).
- b. PL 89-72, Federal Water Project Recreation Act of 1965.
- c. PL 91-190, The National Environmental Policy Act (NEPA) of 1969 (42 USC 4321).
- d. PL 91-611, Flood Control Act of 1970, Section 234 (84 Stat. 1833).
- e. PL 94-587, Section 120 (90 Stat. 2917), Water Resources Development Act of 1976, as amended by Public Law 96-536, (94 Stat. 3166).
- f. PL 95-224, (92 Stat. 3), Federal Grant and Cooperative Agreement Act of 1977.
- g. PL 98-63, Section 164 (5 USC 5901), Supplemental Appropriations Act of 1983.
- h. PL 102-580, Water Resources Development Act of 1992, (106 Stat. 4838, 33 USC 2328, Sec. 203 ).
- I. PL 103-66, Omnibus Budget Reconciliation Act of 1993.
- j. EO 11644, "Use of Off-Road Vehicles on the Public Lands," February 8, 1972 (37 FR 2877, February 9, 1973).
- k. 5 CFR, Part 1320.
- l. 36 CFR, Part 71, Recreation Fees.
- m. 36 CFR, Chapter III, Part 327, Rules and Regulations Governing Public Use of Water Resource Development Projects Administered by the Chief of Engineers (38 FR 75520, 23 March 1973).
- n. AR 335-15, Management Information Control System.
- o. Supplement 1 to AR 190-40, Serious Incident Report (SIR), (RCS CSGPA-1340 (R1)).
- p. ER 25-1-90, Visual Information Management.
- q. ER 37-2-10, Accounting and Reporting Civil Works Activities.
- r. ER 190-1-50, Law Enforcement Policy, U.S. Army Corps of Engineers.
- s. ER 360-1-1, Public Affairs.
- t. ER 385-1-1, Safety and Health Requirements Manual.
- u. ER 405-1-12, Real Estate Handbook.

ER 1130-2-550  
15 Nov 96

- v. ER 1110-2-400, Design of Recreation Sites, Areas and Facilities.
- w. ER 1130-2-500, Work Management Policies.
- x. ER 1130-2-520, Navigational Dredging Operations and Maintenance Policies.
- y. ER 1130-2-540, Environmental Stewardship Policies.
- z. ER 1165-2-30, Acceptance and Return of Contributed or Advanced Funds.
- aa EP 310-1-6, Graphics Standards Manual.
- ab. EP 310-1-6a, Corps of Engineers Sign Standards Manual, Vol 1.
- ac. EP 310-1-6b, Corps of Engineers Sign Standards Manual, Vol 2.
- ad. EP 690-2-2, Career Development Guide for Civil Works Natural Resources Management Team Members.
- ae. EP 1130-2-434, Volume 1-5, JS, DI, FS, Interpretive Services and Outreach Program.
- af. EP 1130-2-500, Work Management Procedures.
- ag. EP 1130-2-550, Recreation Operations and Maintenance.
- ah. EM 385-1-1, Safety and Health Requirements Manual.
- ai. EM 1110-1-400, Recreation Planning and Design Criteria.

ER 1130-2-550  
15 Nov 96

## APPENDIX B

### MANAGEMENT CONSIDERATIONS FOR RECREATION AREAS RELINQUISHED BY NON-FEDERAL INTERESTS

B-1. Policy. The policy of the Corps is to close leased recreation areas turned back to the Corps.

B-2. Purpose. The guidelines establish procedures and guidance to follow if a leased recreation area is turned back to the Corps. This policy pertains only to those situations when an area is relinquished other than by breach of contract. Legal means will be pursued in breach of contract instances with HQUSACE guidance provided on a case-by-case basis.

B-3. Exceptions to Policy. An exception to the above stated policy may be considered if each of the following criteria is met:

a. An efficient and feasible management alternative can be effected or implemented by Corps.

b. Total Corps O&M responsibilities including both funds and manpower requirements are reduced or prevented from increasing.

B-4. Selection of Course of Action. The MSC Commander may elect a course of action, other than closure, within the policy constraints stated herein.

B-5. General Guidance. Once it is established that a lessee plans to relinquish a recreation area, an analysis of the impacts likely to result from such action must be made. Once all impacts are known and evaluated from the Corps perspective, the results should be discussed with the lessee, preferably before its contemplated action is formally taken. Following are considerations which should be addressed in the impact analysis:

a. History of use during last five years as compared to design load of area.

b. Analysis of use of the area compared to other project recreation sites.

c. Analysis from both a local and regional perspective of other areas affording visitors similar type of outdoor recreation facilities and experiences within the zone of influence of the project area.

d. The availability of another non-Federal public entity or commercial concessionaire that might assume operation and maintenance under a new lease arrangement.

e. Assuming potential qualified lessees are unattainable, are there alternative actions to complete closure considering available manpower and budget constraints consistent with the above criteria as:

(1) Partial closure.

(2) Reduction of services provided.

ER 1130-2-550  
15 Nov 96

(3) Closure or partial closure of other in deference to direct management of the area by the Corps.

(4) Combination of the above

f. Cost and manpower analysis of:

(1) Permanent closure versus current operational status under management.

(2) Permanent closure versus other viable alternative actions considered.

g. The social, economic or environmental impacts that would result if the area were closed or services reduced.

h. Other factors having a direct bearing on the situation.

#### B-6. Procedures.

a. After having identified and analyzed what impacts will be associated with the various courses of action available, the results should be discussed with the lessee. The value of coordinating with the lessee is to make the lessee aware of what consequential action the Corps is contemplating. The lessee should realize that the Corps has no obligation to keep the relinquished area opened. In fact, the Corps may have to close the area due to manpower and funding restrictions.

b. The reason for relinquishment should be determined. If the reason for relinquishment is short term in nature, the lessee should be apprised that any future lease, if desired, would need to be negotiated under the prevailing conditions. Therefore, modified services or partial closure may offer a more favorable alternative than lease terminations in some situations. Those possibilities should be considered to the fullest extent possible. However, there is no authority for granting funds, manpower or equipment to entice the lessee to continue operation and maintenance of the leased area. Corps assistance in this form is precluded from consideration.

c. Information and insights gained through discussions with the lessee should promote understanding and facilitate cooperation in the final plans for subsequent use of the relinquished area. Possible local assistance includes:

(1) Potential influence to assist in obtaining other qualified non-Federal sponsors to lease the area.

(2) Postpone termination to the end of the current recreation season or through the following recreation year. This would allow additional time to cope with the situation and may favorably effect final disposition action.

(3) Development with the Corps of joint strategies to inform the public about the upcoming reduction of services or closure of the area. The importance of mutually supportive positions in such actions should not be overlooked.

d. The necessary details and arrangements for the actual turn back of the leased area also should be discussed by the lessee. Acceptance by the Corps should be in accordance with the

ER 1130-2-550  
15 Nov 96

appropriate conditions of the specified lease document unless otherwise waived by the District Commander as being in the best interest of the government.

e. A master plan revision is required only if the approved land use designation for the relinquished site needs changing to accommodate a different land use of the area.

f. All of the potential management options will be considered in finalizing recommendations to the MSC Commander. The necessary environmental documentation, as determined appropriate, will be in accordance with ER 200-2-2. The selected course of action should be that alternative which will afford the greatest public service within the constraints of the MSC Commanders' existing personnel and budget allocations. Such considerations should be realistic.

g. A public relations program should be developed and implemented by the MSCs and districts where recreation area closures are scheduled. The public information program should be designed to insure public understanding of the reasons necessitating such action. Information on alternative areas available for public use should be included. A public relations program is also appropriate when major changes in the operation affecting one or more sites is contemplated.

h. Action taken by a lessee, such as a state, may involve relinquishment of areas affecting more than one district or MSC. In the event such concurrent action by a lessee has been initiated, it is essential that coordination between the affected Corps commands be effected. If it is determined that the situation warrants attention at the Washington level HQUSACE will be available for assistance.

**B-7. HQUSACE Monitoring.** All recreation lease termination actions will be monitored by CECW-ON. Each FOA should report telephonically to CECW-ON once it is verified that a lessee is contemplating termination of its lease. After discussions with the lessee have been completed, a narrative report, even if the area is to be closed, should be forwarded to HQUSACE for information. This report should summarize the analysis of the situation including cost and manpower savings based on the course of action selected by the MSC Commander. Coverage of the coordination discussions held with the lessee should be included. If additional manpower or funds are required to implement the selected course of action, a MSC Commander may assume HQUSACE concurrences with his/her selected course of action if he/she has not heard to the contrary within two weeks after forwarding his/her report, and he/she has insured timely receipt through the appropriate assistant director, Civil Works Directorate. (RCS exempt: AR 335-15, paragraph 5-2c (3)).

## **APPENDIX C**

### **Market Studies**

#### **C-1. Market Study.**

a. A market study is contingent upon developing an inventory of the supply of existing types of recreational resources within a given area. The study must also include a recreational demand analysis that provides an indication of what people do, feel and want concerning recreational facilities (e.g., public demand). By comparing the inventory and the demand analysis it is possible to determine the types and amount of additional recreational facilities that are needed now or in the future. At a minimum, proposed recreation development by Federally recognized Indian Tribes, public (Federal, state and local), private sector and quasi-public entities and individuals will demonstrate a demand for the type of facilities proposed and a current or near future need for the type of facility being proposed.

b. Proposed demand studies shall contain data on the regional population and future projections, demographic characteristics and an inventory of similar types of recreational facilities (e.g., campgrounds, picnic areas, marinas, etc.) and their resources (e.g., 125 camping spurs, 150 picnic tables, etc) within a 30-mile radius of the proposed site requested for development. The study should demonstrate that the demand analysis was done through one or a combination of methods. General categories of methods include but are not limited to, public input gathered through surveys and or workshops, using recreational standards (e.g., 1000 camping spurs per 50,000 people), participation levels/rates (e.g., 2.4 million people participate in picnicking, which is 56 percent of the regional population), and trend analysis (e.g., extrapolating historical use statistics for those similar types of facilities over a ten to 20 year period).

c. The availability of information described above for use in the study will vary from region to region. Federally recognized Indian Tribes, public (Federal, state and local), private sector and quasi-public entities and individuals should consult with State Census Bureaus, State Departments of Commerce, State and Federal Recreational Agencies, and travel bureaus for this information and to minimize study cost. Each state has a State Comprehensive Outdoor Recreation Plan that contains analysis criteria referenced above. In addition there are numerous Federal recreational studies such as the National Survey of Recreation and Environment that contain this type of information. Regional universities with outdoor recreational departments may also be a source for information and assistance.

d. All costs associated with a market study, NEPA documents, land surveys, preparation and review of the ultimate lease by the Corps as well as any other administrative costs associated with Corps review and approval of any proposed development are the responsibility of the entity proposing the recreation development.

## **APPENDIX D**

### **Feasibility Studies**

#### **D-1. Feasibility Study.**

a. The intent in requiring a private sector or individual to provide a feasibility study is to demonstrate that the entity can make a reasonable return of profit on a yearly basis for the proposed recreational development and that such development is economically viable. Factors such as the input of capital to develop the facility(s), maintenance cost, insurance, labor, etc. should be addressed. The type and size level of the facility(s) (e.g., 250 camping spurs vs. 100 spurs, 200 marina boat slips vs. 100) should also be addressed to demonstrate a reasonable rate of profit would occur. The numbers of visitors needed and the associated fee for these services should also be addressed. Detailed charts, graphs, and projections are not required; however, enough data must be provided to demonstrate such factors have been considered and that a profit can be generated.

b. Feasibility studies for Federally recognized Indian Tribes, public (Federal, state and local), or quasi-public entities will also be required. However the content of the analysis is limited to the types and size of the facility and evidence that yearly profits of the facility will offset or nearly offset the yearly operational cost of the proposed facility(s). Private sector or individuals working through a public entity for a development request (third party) will be required to furnish a feasibility study that complies with the requirements for a private requestor or individual as referenced above.

c. All costs associated with a market study, NEPA documents, land surveys, preparation and review of the ultimate lease by the Corps as well as any other administrative costs associated with Corps review and approval of any proposed development are the responsibility of the entity proposing the recreation development.

HQ AR000646-HQ AR000779

DEPARTMENT OF THE ARMY  
U.S. Army Corps of Engineers  
Washington, DC 20314-1000

EP 1130-2-550  
Change 1

CECW-O

Pamphlet  
No. 1130-2-550

1 October 1999

*Rated  
9/29/99  
JNL*

Project Operations  
RECREATION OPERATIONS AND MAINTENANCE  
GUIDANCE AND PROCEDURES

1. This Change 1 to EP 1130-2-550, 15 Nov 96, establishes guidance for the administration and management of the USACE Recreation Management Support Program.

2. Substitute the attached pages as shown below:

| Chapter           | Remove pages | Insert pages |
|-------------------|--------------|--------------|
| Table of Contents | iii and iv   | iii and iv   |
| 15                |              | 15-1 – 15-8  |

3. File this change sheet in front of the publication for reference purposes.

FOR THE COMMANDER:

  
 RUSSELL L. FUHRMAN  
 Major General, USA  
 Chief of Staff



DEPARTMENT OF THE ARMY  
U.S. Army Corps of Engineers  
Washington, D.C. 20314-1000

CECW-ON

Pamphlet  
No. 1130-2-550

EP 1130-2-550

15 November 1996

Project Operations  
RECREATION OPERATIONS AND MAINTENANCE  
GUIDANCE AND PROCEDURES

TABLE OF CONTENTS

|   | Paragraph | Page |
|---|-----------|------|
| CHAPTER 1 - Introduction  |           |      |
| Purpose   | 1-1       | 1-1  |
| Applicability   | 1-2       | 1-1  |
| References  | 1-3       | 1-1  |
| Glossary  | 1-4       | 1-4  |
| CHAPTER 2 - Recreation Management                                 |           |      |
| Purpose   | 2-1       | 2-1  |
| Background  | 2-2       | 2-1  |
| Guidance - Operations and Maintenance                             | 2-3       | 2-2  |
| Guidance - General  | 2-4       | 2-3  |
| CHAPTER 3 - Project Master Plans and Operational Management Plans |           |      |
| Purpose   | 3-1       | 3-1  |
| Background  | 3-2       | 3-1  |
| Guidance  | 3-3       | 3-2  |
| Master Planning Procedures and Requirements                       | 3-4       | 3-4  |
| Master Plan Content   | 3-5       | 3-6  |
| Responsibilities  | 3-6       | 3-9  |
| CHAPTER 4 - Interpretive Services and Outreach Program            |           |      |
| Purpose   | 4-1       | 4-1  |
| Guidance  | 4-2       | 4-1  |
| Hiram M. Chittenden Award for<br>Interpretive Excellence          | 4-3       | 4-2  |
| Evaluation  | 4-4       | 4-2  |
| Reporting Requirements  | 4-5       | 4-2  |

EP 1130-2-550  
15 Nov 96

|   | Paragraph | Page |
|---|-----------|------|
| CHAPTER 5 - Visitor Center Program  |           |      |
| Purpose   | 5-1       | 5-1  |
| Program Goals and Objectives  | 5-2       | 5-1  |
| Guidance  | 5-3       | 5-1  |
| Planning Guidelines   | 5-4       | 5-2  |
| Visitor Center Design and<br>Construction/Rehabilitation  | 5-5       | 5-3  |
| Cooperation with Other Agencies   | 5-6       | 5-4  |
| Cooperative Agreements  | 5-7       | 5-4  |
| CHAPTER 6 - Visitor Assistance Program  |           |      |
| Purpose   | 6-1       | 6-1  |
| Accountability  | 6-2       | 6-1  |
| Citation Guidelines/Authorization   | 6-3       | 6-1  |
| Training  | 6-4       | 6-3  |
| Liaison and Coordination  | 6-5       | 6-4  |
| Surveillance  | 6-6       | 6-5  |
| Vehicles and Vessels  | 6-7       | 6-6  |
| Communications  | 6-8       | 6-6  |
| Juveniles   | 6-9       | 6-7  |
| Uncooperative Violators   | 6-10      | 6-7  |
| Appearance Before US Magistrate   | 6-11      | 6-7  |
| Issuance of Citations Off Project Lands   | 6-12      | 6-7  |
| Legal Protection  | 6-13      | 6-8  |
| Assault on Corps of Engineers Civilian Personnel  | 6-14      | 6-8  |
| Reports   | 6-15      | 6-9  |
| Preventative Vaccination  | 6-16      | 6-9  |
| CHAPTER 7 - Cooperative Agreements for Law Enforcement Services at Civil Works Water<br>Resource Projects |           |      |
| Purpose   | 7-1       | 7-1  |
| Background  | 7-2       | 7-1  |
| Guidance  | 7-3       | 7-1  |
| Annual Report   | 7-4       | 7-2  |
| CHAPTER 8 - Uniforms for Natural Resource Management Program Staff  |           |      |
| Purpose   | 8-1       | 8-1  |
| Guidance  | 8-2       | 8-1  |
| CHAPTER 9 - Recreation Use Fees   |           |      |
| Purpose   | 9-1       | 9-1  |
| Background  | 9-2       | 9-1  |
| Fees  | 9-3       | 9-1  |

|  | Paragraph | Page |
|--|-----------|------|
| Controlling Paperwork Burden on the Public   | 9-4       | 9-2  |
| Guidance - Fee Setting and Collection Criteria   | 9-5       | 9-2  |
| Guidance - Methods of Collection   | 9-6       | 9-3  |
| Golden Age and Golden Access Passports   | 9-7       | 9-6  |
| Guidance - Accounting  | 9-8       | 9-7  |
| <br>CHAPTER 10 - Use of Off-road Vehicles on Civil Works Projects  |           |      |
| Purpose  | 10-1      | 10-1 |
| Background   | 10-2      | 10-1 |
| Guidance   | 10-3      | 10-1 |
| Guidelines and Criteria for<br>Evaluating Project Lands for<br>Off-Road Vehicle Use                      | 10-4      | 10-1 |
| Operating Conditions   | 10-5      | 10-3 |
| Public Involvement   | 10-6      | 10-3 |
| Enforcement  | 10-7      | 10-4 |
| Environmental Considerations   | 10-8      | 10-4 |
| <br>CHAPTER 11 - Regulation of Seaplane Operations on Civil Works Water Resource<br>Development Projects |           |      |
| Purpose  | 11-1      | 11-1 |
| Guidance   | 11-2      | 11-1 |
| <br>CHAPTER 12 - Natural Resource Management System  |           |      |
| Purpose  | 12-1      | 12-1 |
| User Manual and Reporting Guidance   | 12-2      | 12-1 |
| Assigning Project Numbers and Area Codes<br>for New Projects and New Areas                               | 12-3      | 12-1 |
| Recreation Areas   | 12-4      | 12-1 |
| <br>CHAPTER 13 - Recreation Use Surveys  |           |      |
| Purpose  | 13-1      | 13-1 |
| Procedure  | 13-2      | 13-1 |
| Data Retention and Archiving   | 13-3      | 13-1 |
| <br>CHAPTER 14 - Natural Resource Management Maintenance Uniforms  |           |      |
| Reserved.  |           |      |
| <br>CHAPTER 15 – Recreation Management Support Program   |           |      |
| Purpose  | 15-1      | 15-1 |
| Background   | 15-2      | 15-1 |
| Mission and Goal   | 15-2      | 15-1 |
| Program Components   | 15-4      | 15-1 |
| Program Meetings   | 15-5      | 15-2 |

EP 1130-2-550  
 Change 1  
 1 Oct 99

|  | Paragraph | Page |
|--|-----------|------|
| Spring Team Meeting  | 15-6      | 15-3 |
| Final Approval of RMSP Funding   | 15-7      | 15-4 |
| Statements of Need, Proponents, and Study Plans  | 15-8      | 15-4 |
| Recreation Leadership Advisory Team  | 15-9      | 15-6 |
| Responsibilities   | 15-10     | 15-6 |
| APPENDIX A - References  |           | A-1  |
| APPENDIX B - Interagency Coordination Requirements   |           | B-1  |
| APPENDIX C - Visitor Center Checklist  |           | C-1  |
| APPENDIX D - ENG Form 5036-R   |           | D-1  |
| APPENDIX E - Temporary Employee Training   |           | E-1  |
| APPENDIX F - ENG Form 5036-1-R   |           | F-1  |
| APPENDIX G - Alternative Management Techniques   |           | G-1  |
| APPENDIX H - Format for Cooperative Agreement  |           | H-1  |
| APPENDIX I - Reporting Requirements for Law Enforcement Cooperative Agreements Through the NRMS    |           | I-1  |
| APPENDIX J - Class a Dress Uniform   |           | J-1  |
| APPENDIX K - Class B/C Duty Uniforms   |           | K-1  |
| APPENDIX L - Uniform Procurement and Accounting Procedures   |           | L-1  |
| APPENDIX M - Use Fee Criteria - Group and Single User Limit Camp Areas                             |           | M-1  |
| APPENDIX N - Special Events  |           | N-1  |
| APPENDIX O - Program Integrity: Honor Vaults   |           | O-1  |
| APPENDIX P - Golden Age and Golden Access Passport Record (ENG Form 4468-R) and (ENG Form 4468A-R) |           | P-1  |
| APPENDIX Q - Direct Transmittal of Recreation Use Funds  |           | Q-1  |
| APPENDIX R - Maintaining Funds Security  |           | R-1  |
| APPENDIX S- Outline of Monitoring Plan for ORV Areas   |           | S-1  |

EP 1130-2-550  
15 Nov 96

## CHAPTER 1 - INTRODUCTION

1-1. Purpose. This chapter establishes guidance for the management of recreation programs and activities, and for the operation and maintenance of U.S. Army Corps of Engineers (USACE) recreation facilities and related structures, at civil works water resource projects and supplements ER 1130-2-550, Recreation Operations and Maintenance Policies.

1-2. Applicability. This guidance applies to all USACE commands having responsibility for civil works functions.

1-3. References. See Appendix A.

1-4. Glossary.

a. General Plan. The plan required, pursuant to the Fish and Wildlife Coordination Act (reference Appendix A, paragraph 5) for lands and waters where the fish and wildlife resources are to be developed and managed by another agency, and for authorized mitigation lands managed by the Corps. Plans will be approved jointly by the Secretary of the Army, the Secretary of the Interior, and the head of the State Fish and Wildlife agency. A General Plan is not necessary when operation and management of the project provides for fish and wildlife incidental to other Corps activities.

b. Interpretive Services. Communication and education processes provided to internal and external audiences, which support the accomplishment of Corps missions, tell the Corps story, and reveal the meanings of, and relationships between, natural, cultural, and created environments and their features.

c. Land Allocation. The identification and documentation of lands at Civil Works projects in accordance with the authorized purposes for which they were or are to be acquired. There are four primary land allocation categories applicable to Corps projects; (1) operations (i.e., flood control, hydropower, etc.), (2) recreation, (3) fish and wildlife, and (4) mitigation.

d. Land Classification. All lands are acquired for authorized project purposes and allocated for these uses. The classification process is a further distribution of project lands by management categories which, based upon resources available and public needs, will provide for full utilization while protecting project resources.

e. Master Plan. The document guiding the use and development of the natural and manmade resources of a given project or group of projects.

f. Official Use. Use by an employee, agent or designated representative of the Federal Government or one of its contractors in the course of his employment, agency, or representation.

g. Off-road Vehicle. Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such term excludes (1) any registered motorboat, (2) any military, fire, ambulance or law enforcement vehicle when used for emergency purposes and (3) any vehicle whose use is authorized by the Commander, HQUSACE, or a properly designated representative, under a permit, lease, license or contract.

EP 1130-2-550  
15 Nov 96

h. Operational Management Plan (OMP). A management action document that describes in detail how resource objectives and concepts prescribed in the master plan will be implemented and achieved. (See ER 1130-2-550, Chapter 3, Project Master Plans and Operational Management Plans).

i. Outreach Activities. Communication efforts involving interpretive programs that reach diverse populations such as students, teachers, organized groups such as Boy Scouts, Girl Scouts, 4-H, and the general public, beyond the physical boundaries of Corps projects and facilities.

j. Project. Water resource development lands and waters for which the Corps of Engineers has administrative responsibility.

k. Project Lands. Lands and waters administered by the Commander, HQUSACE, in connection with a Federal water resource development project.

l. Recreation Research and Demonstration Unit (RRDU). A project or specifically defined portion(s) of a project upon which baseline project, recreation user, and renewable natural resource data files will be established and periodically monitored and updated and upon which recreation resources research and demonstration projects will be conducted.

m. Recreation Use Monitoring Station (RUMS). A specific "Water Resource Development Project," such as a Corps constructed and maintained ocean jetty, a segment of a Corps maintained waterway, a Corps constructed harbor of refuge or a small craft harbor, upon which baseline project and recreation user data files will be established and periodically monitored to obtain valid information to assist Corps recreation related planning, policy, and maintenance activities.

n. Reevaluation. The review of an existing master plan by an interoffice/interdisciplinary team to determine if it requires supplementation or updating.

o. Resource Objectives (RO). Clearly written statements that are specific to a project, or group of projects. They specify the attainable options for resource development and/or management. They must be consistent with authorized project purposes, Federal laws and directives, regional needs, resource capabilities, and expressed public desires.

p. Supplement. An approved change to a master plan.

q. Update. A major revision of a master plan. The term "update" should not be used in the title of the new master plan. It is used in this regulation to distinguish between levels of change.

EP 1130-2-550  
15 Nov 96

## CHAPTER 2 - RECREATION MANAGEMENT

2-1. Purpose. This chapter establishes guidance for the administration and management of USACE recreation programs and facilities at civil works water resource projects.

2-2. Background.

a. Programs and activities related to outdoor recreation have as their design base:

(1) the following mission statement:

" The Army Corps of Engineers is the steward of the lands and waters at Corps water resources projects. Its Natural Resources Management Mission is to manage and conserve those natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations.

In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance and restoration practices.

The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector.

The Corps integrates the management of diverse natural resource components such as fish, wildlife, forests, wetlands, grasslands, soil, air, and water with the provision of public recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life."

(2) and, the following program objectives:

(a) To provide a quality outdoor recreation experience which includes an accessible, safe and healthful environment for a diverse population,

(b) To increase the level of self sufficiency for the Corps recreation program,

(c) To provide outdoor recreation opportunities on Corps of Engineers administered land and water on a sustained basis, and

(d) To optimize the use of leveraged resources to maintain and provide quality public experiences at Corps water resources projects.

EP 1130-2-550  
15 Nov 96

b. To accomplish the program objectives, the Corps manages land and water resources in cooperation with other Federal, state and local agencies, quasi-public organizations and the private sector supplemented by volunteers, contributions and challenge cost sharing programs.

2-3. Guidance - Operations and Maintenance.

a. Master plans and operational management plans will be developed in accordance with the guidance contained in Chapter 3 of ER 1130-2-550, Project Master Plans and Operational Management Plans.

b. Outdoor Recreation.

(1) General. Whenever possible, the Operations Project Manager will employ the following management measures to increase the public's opportunity for a high quality recreation experience:

(a) Based upon social and resource carrying capacity, establish and enforce maximum use limitations to prevent overcrowding or site deterioration.

(b) Reduce or eliminate use conflicts. Public day use activities should be separated from camping areas and Corps managed areas should be separated from outgranted areas.

(c) Establish a project wide cost effective program to rehabilitate recreational facilities whenever feasible to increase visitor satisfaction while reducing O&M costs. Consolidate areas and/or close and discontinue facilities that are under utilized.

(d) Implement other approved management measures to provide for recreational use of the project by all visitors, including persons with disabilities.

(e) Issue Special Events and Use Permits in accordance with Chapter 9 of ER 1130-2-550, Recreation Use Fees.

✓ (f) Consider leasing areas for commercial concession or park and recreation purposes.

(g) Managers should establish a project wide cost effective program to rehabilitate recreational facilities whenever feasible to increase visitor safety and satisfaction while reducing O&M costs. O&M budget Feature Cost Codes 606.1 and 606.3 allow for justified levels of public health and safety at the least cost and Codes 629.1 and 629.9 allow for the insurance of public safety.

(2) Public Campgrounds. Normally the Corps or another public agency will provide and administer facilities for use by the camping public. Campgrounds may also be provided by commercial concessions.

(3) Camping is permitted only in those area designated in the Master Plan and such activity will be in accordance with 36 CFR 327 and Chapter 9 of ER 1130-2-550.

(4) Swimming Beaches. New swimming beaches should be developed and maintained under the guidelines of PL 89-72 and the criteria established in Appendix A of EM 1110-2-400. Existing beaches and concentrated swimming areas operated by the Corps will be maintained in a

EP 1130-2-550  
15 Nov 96

physically safe and efficient manner in accordance with the stated EM. This will include maintaining appropriate gradient, beach nourishment, adequate buoys and proper signing.

(5) The following criteria should be used in the analysis of recreation areas highlighted to be considered for closure consolidation, or transfer to others to operate. Each review should include an analysis of the socioeconomic impact of the area upon the surrounding community. (This criteria was presented before the United States Congress in 1982 by the Commander, HQUSACE.)

- (a) A cost-per-visit analysis.
- (b) Area location and accessibility by a majority of the using public.
- (c) The area's percentage contribution to total project visitation.
- (d) Whether or not the closure of one area would benefit the more efficient use of adjoining areas.
- (e) Visitor, ranger and contractor safety.

c. Service Contracts.

(1) OMB Circular A-76. In accordance with OMB Circular A-76, when it has been determined that a function or service can be contracted, the full cost of contracting will be compared with the in-house cost. When contracting costs are lower than in-house costs by a specified margin, the Government will contract for the product or service.

(2) Operations Project Manager's Role. Operations project managers can serve, if designated by the District Commander, as the Contracting Officer's Representative (COR) when service contracts are found necessary. Other staff members may serve as the COR with proper recommendations and training.

d. Boundary Surveys and Marking. (See Chapter 2, paragraph 2-3.b of EP 1130-2-540)

e. Control or Access. Roads which are not maintained, outgranted or used by the Corps, or are not dedicated as public roads by the governmental entity, should be closed, obliterated and revegetated to blend with the natural environment.

f. Archeological, Historical and Cultural Resources. The protection of these resources is required by PL 86-523, and PL 89-665. Guidance is contained in Chapter 6 of ER 1130-2-540 for protecting these resources at completed projects not covered under ER 1105-2-100.

g. Outgranting of Lands. (See Chapter 2, para 2-3.c. of EP 1130-2-540.)

2-4. Guidance - General.

a. Public Awareness. The following may be used as appropriate to increase public awareness and involvement:

EP 1130-2-550  
15 Nov 96

(1) Submit for comment major plans or programs affecting public use of project lands and waters to the appropriate individual or officer of organizations such as Federal and state wildlife agencies, local conservation groups, sportsmen clubs, and lake associations.

(2) Inform the public of the Corps' natural resources management program through project initiated news releases, regularly published columns or articles, interpretive programs and visitor center activities. Guidance on interpretive services is contained in Chapter 4 of ER 1130-2-550. Visitor center guidance is in Chapter 5 of ER 1130-2-550.

(3) Involve local schools in Corps programs through the provision of speakers and use of project lands and facilities for class assignments.

(4) Project personnel involvement in community activities. Make maximum use of all means to keep the public informed of Corps services and activities.

(5) Establish and maintain working relationships with local private recreation industries, lake associations, conservation organizations, and professional societies and exchange views, speakers, exhibits and publications.

(6) Maintain communication through various means including public meetings or agency coordination meetings at all organizational levels. Keep congressional leaders and state and local government representatives apprised of impending policy changes or actions which may be controversial.

b. Health and Safety.

(1) General. EM 385-1-1, "Safety and Health Requirements Manual" and Engineer Regulations in the 385 series establish the safety program requirements for all Corps of Engineers activities and operations. It does not apply to concessionaires. Resource personnel should become familiar with these instructions to facilitate implementation and enforcement of those provisions applicable to all Corps personnel, contract personnel and the visiting public. Other measures that may be employed to maintain health and safety include, but are not limited to the following:

(a) The project safety officer should develop plans and programs to carry out the provisions of EM 385-1-1 and the Engineer Regulations in the 385 series.

(b) Safety education lectures should be given to government personnel by qualified instructors as required by EM 385-1-1.

(c) Resource management training courses and requirements should comply with Section 1 and 2 of EM 385-1-1.

(d) The project safety plan portion of the OMP should be used in program planning and operation.

(e) Project personnel may participate in and take advantage of programs offered by organizations such as the National Water Safety Congress, National Safe Boating Council, U.S. Coast Guard, Coast Guard Auxiliary, Power Squadrons, the American Red Cross, the National

EP 1130-2-550  
15 Nov 96

Association of State Boating Law Administrator, and state conservation agencies. Guidance and assistance may be obtained from the district safety office.

(f) Safety equipment and materials such as first aid kits, search, rescue and recovery equipment, portable signs and barricades, communications equipment, vehicles, motor launches, and fire fighting equipment should be maintained at each project.

(g) Restricted areas, swimming areas, danger zones, and hazardous areas shall be properly marked with the appropriate buoys, markers, signs, or barricades which conform to the current Uniform State Waterway Marking System EP 310-1-6a&b, and the Manual on Uniform Traffic Control Devices for Streets and Highways (U.S. Dept of Transportation, Federal Highway Commission D6.1, 1978). Such devices will be placed and maintained to insure the public is adequately safeguarded against hazards. ENG LAB 2, For Your Safety (Buoys and Markers), may be used to assist in informing and educating the public about these devices. Tailwater areas and areas immediately above spillways and dams will be properly marked with signs, buoys, booms, or other markers. Signs, buoys, and markers will be installed in connection with powerhouses, fish ladders, locks, and outlet control structures. Project roads and boat launching ramps will be adequately signed, marked, or barricaded for proper use and protection of the visiting public.

(h) All facilities and equipment will comply with applicable Occupational Safety and Health Administration (OSHA) standards.

(3) Search, Rescue and Recovery. Body recovery missions should also be accomplished in coordination with the sheriff's department, state police or other local law enforcement agencies. Safety of personnel must be taken into consideration at all times. Proper equipment must be available at all times and personnel must be trained for this function if these activities are undertaken.

c. Personnel Requirements.

(1) Operations Project Managers. Except for specifically designated facilities such as some locks and powerhouses, the Operations Project Manager will be responsible for all aspects of operations, maintenance, and administration of a water resource development project and its natural and cultural resources. An operations project manager will be assigned to a new project shortly after the initiation of land acquisition. In addition to coordinating with the real estate element, the Operations Project Manager will be actively involved in coordination aspects of planning, design, construction, and other project activities.

(2) Professional Registration and Certification. Natural resources management personnel should be strongly encouraged to become registered in their professional field and actively participate in their state or professional society.

d. Training.

(1) In-house, in-service training, including HQUSACE sponsored courses, shall be conducted on subjects directly related to the Natural Resources Management Program.

(2) Operations Project Manager/Ranger Training Program. Each district should establish and maintain a formal Operations Project Manager/Ranger training program. As a minimum, the

EP 1130-2-550  
15 Nov 96

training program should span 18 months and include assignments to the district office and one lake project.

(3) Conference and Seminars. Judicious management of attendance and participation in various professional conferences, seminars and training schools is necessary to obtain maximum benefits from minimum expenditures. The importance of staying abreast of current information and discussing issues of mutual interest with various local, state, and Federal government, and private sector representatives demands expenditure of some resources.

e. Inter-Agency Coordination. This coordination involves utilizing the expertise of other elements and other governmental agencies having collateral interests in parks, recreation, natural resources, law enforcement, and other matters which are of concern in proper management of the project. Coordination also involves ensuring that the operations view point is considered by other elements and these other agencies, when their actions will affect the operation and management of the projects. Cooperative agreements between the Corps and the Forest Service in accordance with the principles and procedures set forth in the 1964 Memorandum of Agreement between the Secretaries of the Army and Agriculture, will be entered into prior to impoundment to assure an effective management program for the project. Agreements with agencies of the Department of the Interior will be in accordance with the Memorandum of Agreement between the Secretaries of the Army and the Interior, dated 2 February 1973.

f. Signs.

(1) General. Project signs will conform to guidance given in EP 310-1-6a&b, Sign Standards Manual.

(2) Traffic Control. All traffic control signs will conform to the manual on Uniform Traffic Control Devices (D6.1 - 1978).

(3) Symbol Signs. The use of symbol signs should be maximized.

(4) Purchase of Signs. Section 4124 of Title 18 USC requires Federal agencies to purchase, at no more than fair market prices, prison made products when such products are available and meet the requirements of the agency. Therefore, unless the district has its own sign shop, the policy relative to the purchase of project signs is that such signs will be purchased from the Federal Prison Industries (FPI) unless the District Commander is notified by the FPI that it cannot provide the needed signs in a timely manner.

(5) Memorial Plaques. Memorial plaques may be provided at major projects where considered appropriate by the District Commander. A major project is defined for this purpose as one which costs \$10,000,000 or more.

(6) Design. A plaque may be placed in a conspicuous location on a major project structure or other appropriate location where it will be readily visible to the visiting public. Plaques will conform to design guidelines given in EP 310-1-6 and will show in the order listed, the following:

(a) Project name

(b) Engineer castle

EP 1130-2-550  
15 Nov 96

(c) U.S. Army

(d) Corps of Engineers

(e) District office

(f) The following names:

Assistant Secretary of the Army (Civil Works)

Chief of Engineers

MSC Commander at the time of dedication

District Commander who contributed most toward construction

Project engineer in charge during the major portion of construction

(g) Years during which the project was constructed.

(8) Any deviation from the above listing will require approval of HQUSACE (CEIM-IV).



EP 1130-2-550  
15 Nov 96

## CHAPTER 3 - PROJECT MASTER PLANS AND OPERATIONAL MANAGEMENT PLANS

3-1. Purpose. This chapter establishes guidance for the preparation of master plans and operational management plans for USACE Civil Works projects.

3-2. Background.

a. The master plan (MP) is an essential element in fostering an efficient and cost-effective project for natural resources, recreational, and cultural management programs. The MP provides direction for project development and use and as such is a vital tool for the responsible stewardship of project resources for the benefit of present and future generations; and, the MP promotes the protection, conservation and enhancement of natural, cultural, and man-made resources.

b. The MP is the basic document guiding Corps of Engineers responsibilities pursuant to Federal laws (See Appendix B) to preserve, conserve, restore, maintain, manage, and develop the project lands, waters, and associated resources. The MP is a continuing and dynamic document, unlike the feasibility study and the general design memorandum which also plan for the development of resources. The MP is a planning document anticipating what could and should happen and is flexible based upon changing conditions. Design functions are handled in the feature design memorandums and in contract plans and specifications. The MP deals in concepts, not in details of design or administration. Detailed management and administration functions are handled in the operational management plan (OMP), which translates the concepts of the MP into operational terms.

c. Master plans are required for civil works projects and other fee-owned lands for which the Corps of Engineers has administrative responsibility for management of natural and manmade resources. Lands may be exempted from this requirement where there is no demonstrated need or opportunity to manage them. Master plans may be prepared for projects not managed by the Corps of Engineers, such as local protection projects, at the discretion of the MSC Commander.

d. Master Plan Goals. The primary goals of the MP are to prescribe an overall land and water management plan, resource objectives, and associated design and management concepts, which:

- (1) Provide the best possible combination of responses to regional needs, resource capabilities and suitabilities, and expressed public interests and desires consistent with authorized project purposes;
- (2) Contribute towards providing a high degree of recreation diversity within the region;
- (3) Emphasize the particular qualities, characteristics, and potentials of the project;
- (4) Exhibit consistency and compatibility with national objectives and other state and regional goals and programs.

e. Operational Management Plan. Following approval of the MP, preparation of the OMP for natural resources and park management will be initiated by the operations element.

EP 1130-2-550  
15 Nov 96

The OMP shall be prepared as a separate document, and will outline in detail the specific operation and administration requirements for natural resources and park management, consistent with the approved MP.

3-3. Guidance.

a. A current, approved MP is necessary before any action can be taken which may restrict the range of future options. All actions by the Corps of Engineers and outgrantees must be consistent with the MP. Prior to facility construction, renovation, or consolidation, whether to be accomplished with O&M General, Construction General, or SRUF accounts, such activities must be included in an approved MP. These activities will not be included in budget submissions unless they are included in an approved MP. Exceptions for special situations may be granted prior to the approval of a MP following full coordination within the district. The resulting changes will be incorporated into the MP.

b. Scope of The Master Plan. The MP shall cover a single project or several projects depending on what is the best for management of the resources involved. The scope, content, and organization of MPs may vary considerably from project to project depending upon a number of factors including the complexity of the project, whether this is a new or updated MP, the particular needs of management personnel, innovations developed to improve utility, and other factors. The MP shall cover all resources, including but not limited to, fish and wildlife, vegetation, cultural, aesthetic, recreational, mineral, commercial, and outgranted lands, easements, and water.

c. Master Plan Preparation. The interoffice/ interdisciplinary team approach will be used for the development, reevaluation, and supplementation or updating of MPs. Teams should consist of representatives from Operations (including project personnel), Planning, Real Estate and/or other elements as appropriate. The team should also be interdisciplinary, as required by the National Environmental Policy Act, including representatives of various science and design disciplines depending upon the resources involved. Coordination with other agencies and the public shall be an integral part of the master planning process. The process shall be conducted in a manner which maximizes long-term cost effectiveness of the preparation, maintenance, and implementation.

d. Operational Management Plan Preparation. (See chapter <sup>3</sup>~~1~~ Appendix B of ER 1130-2-550 for policy guidance on preparation of OMPs.) If the MP is not scheduled for completion within one year, operations will proceed with development of the OMP. During OMP development or update, emphasis on achieving economy in planning, design, construction, and managing natural resources and recreation facilities should be considered. Economy and quality are to be given equal attention in the development of new recreation facilities.

(1) The following parts of the OMP will be prepared:

(a) Natural Resources Management

(b) Park Management

(2) Management strategies consistent with authorized project purposes, approved resource use objectives and land use designations will be established for each part. The OMP will be used as a working tool and will include funds, staffing and time frame required to

EP 1130-2-550  
15 Nov 96

implement these strategies. As the OMP will be a working tool to be used in the overall management of the project, it should be in loose leaf format and if possible updated every five years. Approval of the OMP and its updates rests with the district commander. Portions of the plan (funding, staffing, and equipment needs) will be updated and submitted for approval to the district commander on a yearly basis. An OMP will be prepared and submitted for all projects. At projects with only small acreages managed by the Corps (i.e., a few hundred acres around the dam), the plan will be prepared in the same general format but on a limited basis commensurate with the degree of management possible. The OMP for outgranted areas will include the outgrantee's management plans for the area and how the management of the outgranted land supports the overall management objectives of the project.

(3) Part I. Natural Resources Management replaces the former Master Plan Appendices B (Forest/Range Management), C (Fire Control), and D (Fish and Wildlife Management). This part will be based on a total ecosystem or compartment approach to management of natural resources. Part I will include (a) compartment descriptions (b) management objectives and (c) implementation plans. When determining management objectives, overall project management objectives (including outgranted areas) should be considered and addressed in the plan. A basic outline to be used is presented as Table 3-1 on the following page.

EP 1130-2-550  
15 Nov 96

---

Table 3-1

I. Natural Resources Management

A. Long Term Objectives of Resource Management

B. Compartment Description

(1) Topography (slope, aspect, general soil type, etc.)

(2) Aquatic Resources (type, temperature, turbidity, etc.)

(3) Vegetation (species, size, density, etc.)

(4) Fish and Wildlife (species)

(5) Special Considerations or Problems (protected or rare/ unique habitat, rare and endangered species, national emphasis programs (e.g., watchable wildlife North American Waterfowl Management Program, and Neotropical Migratory Birds, etc.), pollution, forest fire control)

C. Management Objectives (for each compartment)

D. Implementation Plan (for each compartment)

(1) Management Techniques (to meet objectives)

(2) Five-Year Schedule (of management techniques to be applied)

(3) Annual Staffing and Equipment Needs

(4) Annual Costs

(5) Coordination (with other elements/agencies/the public)

---

(4) Part II. Park Management will replace the former Master Plan Appendices A (Project Resource Management Plan), E (Project Safety Plan), and F (Lakeshore Management Plan). It will be composed of descriptions, management objectives and implementation plans for at least the following, as presented in Table 3-2 below.

---

Table 3-2

II. Park Management

- A. Safety (employee, contractor and visitor)
  - B. Security
  - C. Visitor Assistance
  - D. Shoreline Management
  - E. Private Exclusive Use (existing approved regional plan may be inserted as is)
  - F. Outgrants (availability of lands, compliance inspections, etc.)
  - G. Maintenance
  - H. Recreation Use Fee Program
  - I. Interpretation
  - J. Cultural Resources
  - K. Project Sign Management Plan
  - L. Special Programs
  - M. Cooperation (with other agencies and/or special interest groups)
  - N. Five-Year Program (for park management)
  - O. Priority List (of annual programs with staffing and funding requirement)
- 

e. The above subjects must be included in all OMPs if these activities exist at the project. Specific formats and detailed guidance may be determined by the District Commander.

f. Strong consideration should also be given to holding an annual project meeting or open house as a way of providing the public with an opportunity to express their views on the management of the project. This public input can serve as a partial basis for the annual OMP update.

3-4. Master Planning Procedures and Requirements.

a. **Conceptual Framework.** The master planning process encompasses a series of interrelated and overlapping tasks involving the examination and analysis of past, present, and forecasted future environmental and socioeconomic conditions and trends. Within a generalized conceptual framework, the process focuses on three primary components: (1) regional or ecosystem needs, (2) project resource capabilities and suitabilities, and (3) expressed public

EP 1130-2-550  
15 Nov 96

interests and desires. The MP shall ensure that economy and quality shall be given equal attention in the development of new recreation facilities.

b. Plan of Study. To ensure that a MP will be developed in an efficient and cost-effective manner, a plan of study will be formalized at the outset by the MP study team. As a minimum, the plan shall identify information needs and means for obtaining, study costs, schedules, tasks, district's quality control plan for the development of the master plan and responsibilities.

c. When to Prepare, Supplement, or Update a Master Plan.

(1) New Projects. Preparation of the MP will be initiated as soon as possible after approval of the general design memorandum (GDM) so that approved recreation and other feature developments will become available as the project becomes operational.

(2) Existing Projects.

(a) Reevaluation. Existing project MPs will be periodically reevaluated by an interoffice/interdisciplinary team to assess the extent to which the document serves its intended purpose. The reevaluation team should examine and assess the MP to determine if it is up-to-date, responsive to current and foreseeable regional needs, public interests and desires, communicates direction and intent, and is actually being used and followed by project management personnel.

(b) Supplementation. Master plans in need of only minor revisions and modifications will be supplemented to include corrected drawings as required. Supplements should be prepared as often as necessary to ensure that the MP continues to serve its intended purpose.

(c) Update. Master plans which no longer serve their purpose will be updated as soon as possible.

d. Coordination and Public Involvement.

(1) In-house. Draft MPs, supplements, and updates shall be coordinated with those elements which have responsibility for planning, design, development and/or management of the project.

(2) Interagency. Coordination with some agencies is required by law, executive order, or memoranda of agreement. Some of the common requirements are listed in Appendix C. Early and thorough coordination with other Federal, state, regional, and local agencies is encouraged. Master plans should be coordinated with a committed or most likely local sponsor for recreation or other aspects that require cost-sharing.

(3) Public. Coordination with the general public is required in some circumstances and can be very important in identifying resources and determining public needs and desires. Public involvement and coordination should be included in the plan of study (see para. 3-4.b). Consideration should be given not only to formal public meetings but to informal workshops, mailed brochures, and other techniques to achieve maximum coordination with a reasonable expenditure of time and funds.

EP 1130-2-550  
15 Nov 96

(4) Congressional. Notification of congressional interests is an important part of public coordination and public involvement. They should be given early notification of formal and informal meetings related to the MP as well as the availability of draft and final MPs and other master planning documents.

e. Cost Effectiveness.

(1) The Master Plan. The master planning process will be implemented in a manner which maximizes cost effectiveness in the preparation and maintenance of MPs. Toward this end the MP should be concise and designed for easy preparation, supplementation, and update. Project field personnel, in addition to serving as team members, will be fully utilized for data collection and recommendations. Materials previously assembled for feasibility reports, environmental impact statement, the OMP or other documents will be used to the maximum extent possible to minimize effort and redundancy.

(2) The Master Plan Document. The finished MP will be a usable document. The text should be typewritten on 8 ½ x 11" white paper, when feasible, with all maps, aerial photographs, or plates folded to the 8 ½ x 11" size. The document will be assembled in a looseleaf format with the title on the front cover and the binding. Data, aerial photographs, maps, or other exhibits used in development of the MP should be available for development of the OMP. Pages and plates changed as a result of supplementation shall be marked with the date of the revision and distributed to all holders of the MP.

3-5. Master Plan Content. The following elements, at a minimum, will be included in each MP.

a. Introduction. Short introductory paragraphs or sections shall provide information on project authorization, land allocations, project purposes, purpose and scope of the master planning action, a project description, and a listing of prior and proposed design memorandums. A tabular listing of pertinent project information should be provided to assist in the evaluation of future decisions concerning management of project resources. Items which may be included in the project description, if applicable, are project location, climatological data, drainage area, water storage pools, hydropower facilities, main dam, spillways, outlet works, subimpoundments, lake regulation, project visitation, summary of recreation development, etc. A description of regional influences shall be provided, including a discussion of the relationship of the project to other projects and programs of other agencies.

b. Resource Objectives. Resource objectives are developed to guide future design, development and management of the resource base, natural and manmade, to obtain the greatest possible benefit through meeting the needs of the public and protecting and enhancing environmental quality. Resource objectives shall, at a minimum, consider authorized project purposes, applicable Federal laws and directives, regional needs, resource capabilities and expressed public desires.

c. Resource Analysis. Project resource analysis shall provide a review of natural resource data to determine the suitability of project lands and waters for significant natural resource related management activities. Inventories for development of MPs, through land satellite images or other means, should identify broad categories of natural features. The features will be further defined in the OMP process. The inventories may include forest or vegetative covers, rangelands, water, environmentally sensitive areas or species and cultural, historic or archeological conditions. Only a summary of resource suitability for potential uses will be

EP 1130-2-550  
15 Nov 96

presented. Care should be taken not to violate public disclosure restrictions on archeological resources. The analysis shall provide sufficient detail to serve as the basis for subsequent land classification decisions and the development of resource objectives consistent with resource capabilities. The use of automated geographic information systems is encouraged to perform resource analysis and mapping tasks as a method of increasing efficiency and reducing long term costs.

d. Recreation Program Analysis. The evaluation of recreation on project land should consist of both an analysis of recreation use and an evaluation of the efficiency and effectiveness in which recreation opportunities are or will be provided. It is important that this analysis include both consumptive and non-consumptive use of the resources. The delineation of market area and the projection of future recreation use and facility requirements shall be based on an evaluation of historic and current use at existing projects. Areas of consideration to meet this objective may include consolidating small recreation areas, carrying capacity analysis of project lands and waters, and new technologies.

e. Public Involvement and Coordination. A summary of results from public meetings, workshops and other methods used to solicit input and the impacts on the resource objectives will be included.

f. Land Allocation. All lands will be allocated in accordance with the authorized purposes for which they were or are to be acquired. A project map delineating land according to land allocation will be provided. Land will be allocated into one of the following categories:

(1) Operations. Lands acquired in accordance with the authorizing documents for operation of the project, i.e., flood control, hydropower, navigation, water supply, etc.

(2) Recreation. Separable lands acquired in accordance with authorizing documents for public recreation.

(3) Fish and Wildlife. Separable land acquired in accordance with authorizing documents for fish and wildlife management.

(4) Mitigation. Land acquired or designated in accordance with authorizing documents to offset losses associated with development of the project.

g. Land Classification. Allocated project lands will be further classified to provide for development and resource management consistent with authorized project purposes and the provisions of NEPA and other Federal laws (see Appendix B). The classification process refines the land allocations to fully utilize project lands and must consider public desires, legislative authority, regional and project specific resource requirements and suitability. This allocated use takes precedent over any of the following classification categories. Agricultural or grazing use of project land is not a land classification but may be an interim or corollary use to meet management objectives. Land identified as potentially excess should be identified. Operational impact, environmental assessments and impact, cultural, historic, wetlands, and endangered species review are a part of the determination of excess process. If the property is recommended as excess by the district, a Report of Excess will be forwarded to the MSC commander for submission to HQUSACE for completion of a Determination of Excess, in accordance with ER 405-1-12, so that the area may be deleted from the master plan. A project map delineating land

EP 1130-2-550  
15 Nov 96

according to classification categories shall be provided and supported by narrative. Land shall be classified into one of the following categories:

(1) Project Operations. In many cases the majority of lands (rim lands etc.) on Corps projects will be allocated to project operations. This classification category should include those lands required for the structure, operations center, office, maintenance compound and other areas that are used solely for project operations.

(2) Recreation. Land developed for intensive recreational activities by the visiting public, including developed recreation areas and areas for concession, resort, and quasi-public development. At new projects, recreation areas planned for initial development will be included in this classification. Future areas will be classified as multiple resource management until initiation of the development.

(3) Mitigation. This will only include land acquired or designated specifically for mitigation. Land classified in this category should be evaluated for consideration for lease or license to the Department of the Interior or the state.

(4) Environmental Sensitive Areas. Areas where scientific, ecological, cultural or aesthetic features have been identified. The identification of these areas on the map must be supported by narrative explaining the rationale for the classification. These areas, normally within one of the other classification categories, must be considered by management to ensure the sensitive areas are not adversely impacted. Normally limited or no development of public use is contemplated on land in this classification. No agricultural or grazing uses are permitted on this land.

(5) Multiple Resource Management. Lands managed for one or more of, but not limited to, these activities to the extent that they are compatible with the primary allocation(s). The activities should be fully explained in the narrative portion of the MP.

(a) Recreation - Low Density. Low density recreation activities such as hiking, primitive camping, wildlife observation, hunting, or similar low density recreational activities.

(b) Wildlife Management General. Fish and wildlife management activities. Lands in this sub-category shall be evaluated for consideration for lease or license to the Department of the Interior or the state or shall be designated for direct management by the Corps.

(c) Vegetative Management. Management activities for the protection and development of forest and vegetative cover.

(d) Inactive and/or Future Recreation Areas. Recreation areas planned for the future or that have been temporarily closed. These lands will be classified as multiple resource management in the interim.

(6) Easement lands. All lands for which the Corps holds an easement interest but not fee title. Planned use and management of easement lands will be in strict accordance with the terms and conditions of the easement estate acquired for the project.

h. Resource Plan. A brief description of resource characteristics and the rationale for the resource objectives will be provided for each classification category. In addition, site plans will

EP 1130-2-550  
15 Nov 96

be provided identifying existing development at each area. Facilities proposed for development within five years will be described and a general cost estimate provided. A conceptual diagram identifying the general location of proposed facilities will also be provided. Planning and management problems related to current recreation development and use will be evaluated and recommendations made. A narrative description of future recreation development expected to occur beyond five years will be provided, and bubble diagrams identifying general locations without cost estimates will be included. A section should address alternative means for development of future recreation areas. It should include results of preliminary economic feasibility investigations to determine the appropriateness and potential for success of the alternatives identified.

i. Special Programs. Programs or situations not covered in other parts of the plan such as off-road vehicle use or feasibility studies for future concession developments may be identified and discussed.

### 3-6. Responsibilities.

a. Schedules. District commanders shall be responsible for ensuring that MPs and operational management plans are completed for all projects and for assuring that they are current. Master plans will be completed for all projects which do not have an approved MP or for which the MP is in need of revision within five years of the date of this regulation.

(1) Master plans will be reevaluated on a continuing basis to avoid costly future updates. Each MP shall be reviewed on a periodic basis, such as five years, and shall be revised as required.

(2) District 5-year schedules for MPs, supplements, and updates will be included in the annual update of the Natural Resource Management System which begins 1 December each year (ER 1130-2-550, Chapter 12). Each annual report will include the status of plans scheduled.

(3) Operational Management Plans will be prepared for each project within three years of the date of this regulation (where they do not already exist) and will be updated annually.

b. Approval. District commanders shall be responsible for approving <sup>MP</sup>MPs, supplements, updates and operational management plans. One copy of the approved ~~document~~ will be submitted to both the appropriate division and CDR, USACE (CECW-ON) WASH DC 20314-1000.

EP 1130-2-550  
15 Nov 96

## CHAPTER 4 - INTERPRETIVE SERVICES AND OUTREACH PROGRAM

4-1. Purpose. This chapter, as well as EP 1130-2-434, Volumes 1-5, DI (Database Instructions), FS (Chittenden Award Fact Sheet), and JS (Job Standards), establish guidance for the operation of the USACE Interpretive Services and Outreach Program (ISOP) program at civil works water resource projects.

### 4-2. Guidance.

a. All Corps interpretive and outreach efforts should be based on the Freeman Tilden basic principles of effective interpretation as listed below. They include personal, as well as nonpersonal communication and educational activities in written, oral and audiovisual forms.

I. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.

II. Information, as such, is not Interpretation. Interpretation is revelation based upon information. But they are entirely different things. However, all interpretation includes information.

III. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical or architectural. Any art is in some degree teachable.

IV. The chief aim of interpretation is not instruction, but provocation.

V. Interpretation should aim to present a whole rather than a part, and must address itself to the whole (person) rather than any phase.

VI. Interpretation addressed to children (say, up to the age of twelve) should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program."

b. Interpretive programs should be entertaining but not be provided solely for the purpose of entertainment.

c. Suggested program scope and content guidance may be found in the ISOP Strategy and Goals (EP 1130-2-434, Volume 1) provided to all field elements. The interpretive strategy contains ideas to implement interpretive program goals identified herein.

d. While many programs and events take place on Corps sites, it is appropriate for Corps team members to provide interpretive programs outside the boundaries of Corps projects as part of each project's outreach efforts. Examples of appropriate programs include, but are not limited to, presentations at local schools, participation in fairs, parades, conservation events, and other agency or community-sponsored events.

e. It is appropriate for Corps team members to promote project missions through the ISOP.

EP 1130-2-550  
15 Nov 96

f. Cooperating associations provide an opportunity to expand visitor service and programming experience. (See ER and EP 1130-2-500, Chapter 9).

g. Coordination is essential between operation and public affairs and other functional elements with public communication responsibilities. Coordination is also encouraged between external agencies and concerned public interests.

h. A Corpwide emphasis theme for the Interpretive Services and Outreach Program will be developed periodically by CECW-ON. CECW-ON will periodically solicit theme suggestions from MSCs and will provide guidance to promote the theme throughout the Corps, as well as to visitors, schools and other audiences. CECW-ON will also suggest a list of sources for resource materials that complement and enhance each theme. Projects are encouraged to use these materials and participate fully in supporting the chosen theme as it relates to the Corps goals outlined in ER 1130-2-550, Chapter 4.

4-3. Hiram M. Chittenden Award for Interpretive Excellence. Nominations for the Hiram M. Chittenden Award for Interpretive Excellence will be made according to the criteria and submittal instructions found in an annual memorandum signed by the Director of Civil Works announcing the award.

4-4. Evaluation. Each project should evaluate its ISOP to assure consistency with ER 1130-2-550, Chapter 4. The program should be evaluated on an annual basis. Each district point of contact should ensure that their project programs are complementary and comprehensive.

4-5. Reporting Requirements. Limited upward reporting such as the number of visitors reached on site and through outreach programs will be included in the Natural Resource Management System (NRMS). See ER 1130-2-550, Chapter 12, Natural Resource Management System for additional information.

EP 1130-2-550  
15 Nov 96

## CHAPTER 5 - VISITOR CENTER PROGRAM

5-1. Purpose. This chapter establishes guidance governing planning, development, management, and operation of USACE Visitor Center facilities at civil works water resource projects.

5-2. Program Goals and Objectives. Visitor Center operation is a necessary and integral part of total project management. The primary purpose of the Visitor Center program is to provide interpretive information to the visiting public about the Corps, its mission, the project and its facilities, visitor safety, and the geographic area where the project is located. Visitor Centers provide the information necessary to visitors for safe and enjoyable use of Corps facilities. Exhibits and other interpretive communications should be designed to stimulate interest and convey information. The interpretive objectives of visitor centers are to:

- a. Enhance the public's understanding of the multidimensional role of the Army and the Corps and their contributions to the Nation.
- b. Enhance the public's understanding of the purpose and operation of the project, its archeological, historic, man-made, natural, and cultural features.
- c. Develop public appreciation for the proper and safe use of project resources.
- d. Foster the spirit of personal stewardship of public lands.
- e. Orient the visitor to the project and its recreational opportunities.
- f. Aid project personnel in accomplishing management objectives.
- g. Reduce overall project operation and maintenance costs.

5-3. Guidance.

a. The Corps of Engineers is responsible for providing information to the visiting public at every project it operates through a Type A Regional Visitor Center, a Type B Project Visitor Center, or a Type C Visitor Information Center.

b. Project personnel manage and operate, or oversee contract operations of, Visitor Centers at water resource development projects. Visitor Centers educate and inform the public with regard to the history and mission of the Corps, its role in water resources development, the project, its purpose, benefits and costs. Visitor Centers are further operated to ensure the public is provided with the information necessary for the safe use and enjoyment of Corps projects.

c. Visitor Center Types. Visitor Centers are classified into three types based upon their authorization, size, facilities, and program scope. The basic objective of serving and informing the visiting public is common to all.

d. Maintenance. Corps facilities available to the public are subject to the highest standards of maintenance, both inside structures and on the surrounding grounds. This maintenance function may be performed either in-house or by contract personnel. These services should be scheduled for non-operational hours.

EP 1130-2-550  
15 Nov 96

(1) All equipment used in Visitor Centers should be generic off-the-shelf products, selected for dependability, ease of maintenance, longevity and low operating costs.

(2) A contract or other type agreement should be negotiated for any equipment repairs beyond the skills of the staff. Backup equipment should be available to maintain display operations.

e. Security. Security features should be included in the Visitor Center. Many of these features may be passive in nature such as proper lighting, adequate locking systems and key control, unobstructed views of windows and entrance ways, and alarm systems. At many Visitor Centers, adjacent facilities such as powerhouses, may require restricted access which will be controlled by others. Additional security for these areas may be provided by the Park Ranger staff or contract law enforcement personnel.

f. Audio/Visual Equipment. When old equipment is replaced, or upgraded, and new displays are developed, every effort will be made to purchase generic, highly dependable, off-the-shelf equipment with low maintenance costs, that can be readily repaired or replaced. Audio/visual presentation equipment changes rapidly, making it necessary to purchase equipment that has the capability of being upgraded. New purchases should be coordinated through the District or MSC Information Management Office to ensure uniformity.

g. Development and Distribution of Brochures.

(1) Development and funding procedures must follow those established by the District and Division.

(2) All brochures must meet the guidelines provided in the Graphics Standards Manual (EP 310-1-6). Information that may become quickly outdated, such as hours of operation, special events, etc., should be in the form of inserts, or special handout materials. Each center should conduct a regular review of the effectiveness, accuracy, and relevance of each brochure.

h. Visitor Center and Exhibit Evaluations. The objective of the visitor center evaluation is to insure that exhibits, facilities, and procedures are in good condition and up-to-date. Specific evaluation procedures may be developed by the district.

(1) All Visitor Centers and exhibits will be reviewed at least once every five years by a district level review team. The review team will consist of one representative from each of the following Division office elements: public affairs, natural resources management, information management, engineering, and history (if available).

(2) The purpose of the review is to ensure that all facilities are safe and adequate, equipment is in operating condition, and that audio-visual presentations, photographs, taped messages, and other interpretive materials are accurate and up-to-date. The review team will forward their final inspection report to the District Commander who will determine what changes, if any, will be made. A copy of Regional Visitor Center evaluations will be provided to the MSC. A sample Visitor Center checklist is shown in Appendix C.

5-4. Planning Guidelines. The master plan or the supplement (if necessary) should address visitor center facilities and program requirements in general terms. The planning process for any

EP 1130-2-550  
15 Nov 96

Visitor Center construction, or major rehabilitation of an existing facility will include the following components:

a. When major rehabilitation or construction is approved, the Visitor Center concept will be developed prior to the design memorandum. This will include a project visitation analysis, an analysis to determine the proper type of Visitor Center required, and the identification of the interpretive themes and objectives. The development of the concept stage of the Visitor Center will be accomplished substantially by the project staff with coordination and support of the other District elements. If contractors are used, the Corps will coordinate closely to ensure that the final product meets the objectives in paragraph 5-2. Conversion of existing project buildings to Type C Visitor Centers through the use of an in-house team of subject matter experts and construction experts is not considered to be major rehabilitation.

b. An interpretive prospectus for the Visitor Center will be prepared by either Corps or contract personnel. An interpretive theme(s) will be identified and developed, which describes the importance of specific resources, sites, or programs in relation to the project. These general statements then provide the basic subject matter for the development of interpretive objectives and storyline for the Visitor Center. The interpretive prospectus will include the following: a summary of the decisions reached during the concept process, the basic design criteria for the Visitor Center structure, site selection, site development, structural elements, interior treatment, and traffic flows. The prospectus will show the relationship between the concept decisions and the design.

c. In the case of major rehabilitation of either the Visitor Center building or exhibits, some of the design criteria in the interpretive prospectus may be negated by existing conditions. However, major rehabilitation may include site and/or building modifications, if they are integral to the new visitor center concept.

d. References found in Appendix A, contain additional information for the interpretive prospectus. If the prospectus is prepared by contract, Corps personnel will remain directly involved in the process in an advisory and review capacity. Sections of the prospectus dealing with the history of the Corps should be submitted to the Office of History, HQUSACE (CEHO) for review and authentication. Sections dealing with local and/or state history should be referred to the appropriate state or local agencies.

5-5. Visitor Center Design and Construction/Rehabilitation. A special design memorandum (ER 1110-2-400) will be completed for any new building construction, or major facility rehabilitation. The design memorandum will address site development, design rationale, architectural, electrical and mechanical specifications, and cost analysis.

a. The Visitor Center building design memorandum will be completed after the concept plan and concurrently with the interpretive prospectus to insure compatibility between the structural design and the exhibit design. The building should be designed to support and enhance the interpretive presentation. The design should provide flexibility to allow for future updating and modifications of content. Use of windows should be carefully controlled to permit effective use of lighting, efficient use of floor space and the use of a variety of exhibit techniques. The excessive use of windows will unnecessarily restrict interior development of the building. Energy efficient design principles and criteria will apply.

EP 1130-2-550  
15 Nov 96

b. All Visitor Centers will be physically accessible for individuals with mobility impairments. All interpretive exhibits will be designed to be universally accessible.

c. Where feasible, consideration should be given to utilizing existing and desirable building designs from other projects, instead of initiating new designs. Plans and specifications are to be prepared for the Visitor Center/resource management office building and the interpretive displays. The designers should closely coordinate their work to assure compatibility from utility, spacial, and aesthetic stand points.

5-6. Cooperation with Other Agencies. It is in the best interest of the Corps to foster cooperation with Federal, state and local agencies, non-profit educational, or other interest groups and individuals in order to facilitate the operation of Visitor Centers. Agencies and groups such as the U.S. Coast Guard, U.S. Fish and Wildlife Service, National Park Service, U.S. Forest Service, state environmental agencies, local conservancies, non-profit groups, universities, historical societies, etc., possess experience, expertise, exhibits, time, and interest that may be used by the Visitor Centers to better inform and educate the public.

5-7. Cooperative Agreements.

a. Visitor Center Managers may consider the development and use of Cooperative Agreements. These Agreements are between nonprofit, tax-exempt corporations established for educational, scientific and/or interpretive purposes and the Corps, acting through the District Commander.

b. Cooperative Agreements are in the public interest and provide services, programs, activities, exhibits, or materials that aid the interpretation, historical, scientific, and educational activities of the Corps and the project. Cooperative Agreements provide a wide range of opportunities for community involvement; through memberships, publications, program and special activities resulting in mutual benefits for both the Corps and the non-profit corporation. A variety of Cooperative Agreements may be entered into to provide support for the Corps mission and its natural resource management program.

EP 1130-2-550  
15 Nov 96

## CHAPTER 6 - VISITOR ASSISTANCE PROGRAM

6-1. Purpose. This chapter establishes guidance for assistance to visitors at USACE civil works water resource development projects.

6-2. Accountability.

a. The implementation of a visitor assistance program in accordance with Chapter 6 of ER 1130-2-550, under provision of Section 234 of the Flood Control Act of 1970, PL 91-611 (84 Stat. 1818), and this pamphlet will be a major element in job descriptions and shall be addressed in the performance standards for all district staff, operations project managers and rangers responsible for the direction or implementation of the program. Operations project managers are responsible for the review and, if necessary, the corrective action for the proper implementation of this regulation for each individual with citation authority with the procedures, criteria and guidelines contained in this pamphlet.

b. Each operations project manager shall have frequent, open discussions with park rangers and other team members to foster improved communications that will assist both in understanding this regulation and ensuring consistent local application of its policies.

6-3. Citation Guidelines/Authorization.

a. Personnel authorized to be granted Citation Authority will be issued ENG Form 5036-R, Certificate of Authority to Issue Citations. (See Appendix D.) To delegate civilian personnel of the Corps of Engineers to the authority to issue citations as provided by Section 234 of the Flood Control Act of 1970 (PL 91-611, 84 Stat. 1818), the MSC or District Commander must certify in writing that:

(1) The individual's principal duties relate to recreation or natural resource management, which may include, but not be limited to, duties as a ranger, manager, forester, wildlife or fisheries biologist, or environmental or biological specialist.

(2) The individual needs citation authority to perform official duties in the most efficient manner.

(3) The individual has the aptitude, temperament, personality, experience, and ability to exercise citation authority properly.

(4) The individual has been adequately trained in citation procedures.

c. If, after training, individual readiness to meet this criteria remains questionable, citation authority should be withheld or withdrawn.

d. Citation authority should be revoked when an individual fails to meet the provisions of this regulation. A division or district commander may cancel a certificate of authority whenever he/she considers it appropriate, without recitation of reason. Cancellation will be carried out by using ENG Form 5036-1-R, Cancellation of Certificate of Authority to Issue Citations. (See Appendix F.) The person named on the cancellation certificate shall thereafter have no authority to issue citations.

EP 1130-2-550  
15 Nov 96

e. A record of citation authority will be maintained in the district office. A wallet-size citation authority card (ENG Form 4710) will be issued to, and carried by, the designee.

f. MSCs and districts will make at least a biennial analysis, by project, of citation data from the NRMS report. As a rule, the ratio of written warnings to violation notices should be consistent with the national average of 2/1 or higher. When the ratio is lower than 2/1, an analysis should be done to identify any reasons for variances or problems which may be occurring. A ratio of 3 warnings or more per violation is preferred.

g. Project analysis will include a review of ratios of citations to visitation and citations per ranger. Unjustified deviances should be corrected.

h. Written warnings will be prepared in duplicate on ENG Form 4381. Warning citation. Records of warning citations, either by computer entry or file copy, will be maintained for at least two years.

i. Violation Notices.

(1) Collateral forfeiture citations and mandatory appearance citations will be issued as warranted. DD Form 1805, Violation Notice, will be used for these purposes. Guidance on the use of this form is in AR 190-29.

(2) Liaison will be maintained with the Clerks of District courts and Central Violations Bureaus (CVB) to determine forfeiture schedules and to arrange administrative details to implement the provisions of PL 91-611 (84 Stat. 1818). Divisions and districts will make an effort to provide consistency in collateral forfeiture schedules between magistrate districts, Corps districts and, where possible, states.

(3) Liaison will be maintained with local US Magistrates and US Attorney's offices to make arrangements for court appearances and to handle other administrative details. Any specific procedures or instructions issued by local magistrates will be kept on file at project offices and an information copy forwarded to the district office.

(4) Collateral forfeiture, or payment by alleged violators in lieu of appearance, may be made according to the forfeiture schedule approved by the district court, thus terminating the proceedings against individuals. Corps personnel will not accept or agree to handle such payments. Payments of the scheduled amounts and the related citations are to be sent by the alleged violators in a preaddressed envelope furnished with DD Form 1805 to the appropriate location determined in advance by the CVB. In collateral forfeiture cases, the alleged violator should be advised that the payment must be mailed so as to be received by the appropriate office prior to, and therefore in lieu of, the required appearance date stated on the violation notice.

(5) In cases involving large value losses, such as timber harvesting on government lands or major destruction of government property, the US Attorney should be contacted according to District procedures prior to any action. These cases may be prosecuted as civil or criminal cases in order to recover losses incurred.

(6) Miranda warning is not required in the issuance of Title 36 citations.

EP 1130-2-550  
15 Nov 96

(7) In all but unusual circumstances, personnel designated to issue citations will carry out their duties in uniform. Before taking action out of uniform, all of the following will first be considered:

(a) Personnel should summon the aid of a uniformed ranger or other law enforcement officer if possible.

(b) If information such as license numbers, boat numbers, or other identifying facts can be gathered without personal contact, this should be done. Determination can be made later as to the appropriate action.

(c) If the action to be taken in any way creates a threat to the ranger's safety, no action should be taken.

(d) Any action, including verbal warnings, should be taken only after proper identification has been presented, by displaying the badge, citation authority identification card or other appropriate means.

j. There are many alternative management techniques in addition to the issuance of citations that should be considered in the implementation of the Visitor Assistance program. A list of alternative management techniques is provided at Appendix G. Experience has proven these considerations effective in reducing visitor problems.

#### 6-4. Training.

a. HQUSACE Visitor Assistance, NRM, Course. MSC offices will ensure that all permanent, seasonal, and returning temporary personnel with need for citation authority attend the mandatory HQUSACE sponsored training within two years of hiring. The HQUSACE training is the minimum requirement for the authorization of citation authority. This course will provide the basic instruction necessary to carry out visitor assistance duties and will emphasize the history, philosophy, and techniques used in visitor assistance. During the first two years of employment, personnel will also be provided additional training by MSCs or districts to cover local and regional needs.

b. MSC or District Visitor Assistance Course. For personnel who are waiting to attend HQUSACE training and need citation authority immediately, a minimum of 40 hours of combined on-the-job and approved classroom training will be provided by the district or division before the individual will be allowed to enforce Title 36 (CFR). This training will cover philosophy, techniques, limits of Title 36 authority and specific local and regional needs to enable individuals to perform their duties. As a minimum, the core curricula found in Appendix E, along with on-the-job training which addresses special needs of the project, will be required. All employees who complete the 40-hour district or MSC course may be authorized to have citation authority for a maximum of two years with this training. This authority cannot be extended unless the individual attends the HQUSACE training course. District or MSC refresher courses cannot be substituted in lieu of the HQUSACE course. Districts must obtain formal HQUSACE CECW-ON approval of their curriculum as noted in Appendix E prior to conducting a Visitor Assistance Course. No temporary employee in the first summer of employment will be granted citation authority.

EP 1130-2-550  
15 Nov 96

c. HQUSACE Visitor Assistance (Advance) Course. A HQUSACE sponsored training course for personnel with citation authority and those who manage and direct the Visitor Assistance Program is provided. Permanent personnel will attend the course as needed after attending the initial HQUSACE Visitor Assistance Course. This training provides an update on authority, policy, procedures and changes in the program. It is required for all Natural Resources Management personnel and, in particular, resource managers and district and MSC personnel.

d. MSC or District Refresher Training. Each MSC or district will provide visitor assistance and Title 36 refresher training to all district personnel with citation authority as needed. This training may be accomplished at ranger conferences or by other appropriate means. This training will review basic visitor assistance information, sharpen skills and techniques, or address special needs of the district.

e. Personal Protection Training. All personnel performing visitor assistance duties must receive a minimum of 24 hours of personal protection/unarmed self defense, situation evaluation and tactical communication training within two years of employment. This training can be obtained through HQUSACE-sponsored courses (where available) or locally-sponsored courses. Local courses must strictly adhere to Corps authority and policy and must be approved by HQUSACE prior to implementation. Instructors must be fully knowledgeable and supportive of the philosophy, objectives and authority limitations of the visitor assistance program.

f. Medical Training. Managers and supervisors will assure that individuals who perform Visitor Assistant duties are provided first aid, cardiopulmonary resuscitation, blood-borne pathogen and other appropriate health training, and offered preventative inoculations in order that they be qualified and protected to perform immediate, on-site emergency medical treatment to injured personnel and visitors. Employees shall receive the equivalent of Red Cross "Advance First Aid and Emergency Care" course. Increased first aid training up to Emergency Medical Technician Basic (EMT Basic) is authorized for a minimum number of selected permanent staff members at the discretion of the Operations Project Manager. Refresher medical training may be required to maintain certification.

g. Other Training. To complement visitor assistance training, permanent resource manager and ranger personnel shall receive, at the district or project level, training on defensive driving, cultural resource protection, historic property protection, water safety and boat licensing and operation. Where necessary, training in a second language other than English is highly recommended.

6-5. Liaison and Coordination. The support of the US Magistrate, US Attorney's Office, and local law enforcement agencies is imperative for an effective visitor assistance program.

a. Continuing coordination and liaison will be maintained with Federal, state and local law enforcement, fire and rescue agencies to provide maximum visitor assistance to the public. Annual or biannual coordination meetings, which include visits to projects and participation in training sessions by US Magistrates, US Attorneys and local law enforcement agencies, are encouraged to further enhance interagency cooperation. Liaison with state, county or local authorities should include regularly scheduled strategic planning meetings to develop mutual plans for monitoring visitor use at water resource development projects.

b. Formal and informal contacts will be made with these agencies to apprise them of the limited authority of the Corps and to help ensure protection of Corps personnel, visitors and

EP 1130-2-550  
15 Nov 96

property at water resources projects. It must be emphasized to law enforcement agencies that this program does not relieve them of their statutory authority or their responsibility for enforcement of laws under their jurisdiction. Those agencies can only enforce those portions of Title 36 which are incorporated as part of their local statutes.

c. Maximum use of local law enforcement services will be made at areas which have a history of excessive violations and during those periods when rangers are not readily available. The use of local law enforcement services and cooperative agreements during hours of darkness will reduce the need for patrols by Corps personnel during this period.

d. Cooperative law enforcement agreements, as prescribed in Chapter 7 of ER 1130-2-550, Cooperative Agreements for Law Enforcement Services at Civil Works water resources projects will be used to the maximum extent practical.

e. Corps personnel may ride with, or allow local law enforcement personnel to ride with them, in unique cases to foster interagency cooperation. This will not be normal procedure and will be done only for short term situations and with specific approval of the Operations Project Manager. Each division or district should develop general procedures to promote consistency and establish accountability for these activities.

f. The primary responsibility for daily liaison at the local level rests with the resource manager; however, technical assistance will be available from appropriate district and division elements, i.e., Natural Resources Management, Provost Marshal or Security Manager, Counsel, and Safety.

6-6. Surveillance. The District Commander is responsible for insuring adequate order and discipline at Corps projects.

a. The purpose of surveillance is to observe activities and conditions on project lands and waters in order to assist the visitor and insure the protection of project resources.

b. Various methods of surveillance techniques such as foot, vehicle, fixed wing or helicopter aircraft should be used as appropriate to insure a balanced and complete prevention and early detection process. Adequate surveillance of project lands may require that specialized vehicles be available to the ranger staff including, but not limited to, four-wheel drive, bicycles or all-terrain-vehicles.

c. Personnel involved in surveillance will exercise discretion and attempt to avoid potentially hazardous situations. In potential or historic trouble areas, the use of two individuals per vehicle or dual patrols in close proximity with radio contact should be given maximum consideration. Employee safety will be a primary consideration in the conduct of these activities.

d. The scheduling of ranger personnel for surveillance duties will be consistent with staff, funds, and other resource limitations. Schedules should allow for surveillance during peak visitor use, especially during weekends and/or holidays. Night surveillance by rangers is a district option which may be considered, as necessary, to meet project and Corps objectives and provide adequate visitor security.

e. The use of computer data systems should be encouraged at projects to record citation information and facilitate the availability of information to aid in defining problem areas.

EP 1130-2-550  
15 Nov 96

6-7. Vehicles and Vessels.

a. It is desirable that vehicles used by natural resources management personnel be readily identified by the visiting public. Therefore, as project vehicles are replaced, new vehicles acquired will be a solid light green color that closely matches Federal Color Paint Chip No. 14260. Marking of vehicles and vessels will be in accordance with ER 56-2-1 and EP 310-1-6.

b. Resource manager and ranger vehicles and vessels will be equipped with a fixed spot light on the driver's door. Vehicles may be equipped with a single removable warning light which is acceptable to the states in terms of color and placement. Lights mounted behind the grill, which are inconspicuous to the public when not in use, are authorized. Fixed roof or external grill-mounted warning lights are not authorized. Because the purpose of this equipment is for visitor assistance and not the enforcement of state/local laws, district offices will periodically review the use of these lights.

c. Project managers will equip vehicles with a public address system and warning siren. The equipment will not be visible to the public and will be used with discretion. Exceptions may be made for vessels depending upon the size and design of the hull.

d. All ranger and manager vehicles will be equipped, as a minimum, with first aid kits, fire extinguishers, blood-borne pathogen handling kits, rescue throw bags, binoculars, camera and flash light. All vessels will be equipped with the same equipment except that they will have US Coast Guard and state-required safety equipment, marine-use fire extinguishers and/or pumps. Districts and projects may identify and provide additional equipment for manager and ranger vehicles and vessels.

6-8. Communications.

a. Operations and project managers will provide reliable communication equipment in support of natural resources management activities. Authorized communication equipment may include: cellular phones and multiple frequency programmable scanning radios (fixed and hand held) with local/state law enforcement interface, state wildlife/boating officer interface, appropriate rescue/fire interface, weather channels, and separate frequencies for overlapping projects. Corps base stations may be located off project lands and local law enforcement agency base stations may be placed on Corps property, as necessary, to obtain reliable communications.

b. Operations project managers will determine the most reliable communication system for their project. However, if radios are selected over cellular phones, project managers will ensure that the base station is staffed continuously while personnel are on duty in the field. If continuous staffing is impossible, cellular phones should be provided.

c. Park attendants will be provided with either telephone or radio communication system to enhance both their safety as well as that of visitors. When warranted, park attendants may be issued portable radios.

d. The installation of public telephones at entrance stations, beaches, and other public use areas is encouraged to enhance visitor safety. Where feasible, telephones should permit the caller to contact the operator without depositing coins. A listing of appropriate emergency telephone numbers such as fire, medical, police, rescue, and Corps officials should be placed in recreation areas near the location of public telephones.

EP 1130-2-550  
15 Nov 96

e. District commanders will ensure that surveys are conducted periodically to confirm that reliable communication equipment is available to personnel, is located in vehicles and vessels, and is in serviceable condition.

6-9. Juveniles. Juveniles can be cited for Title 36 violations. Each Magistrate may determine if he/she will hear cases against juveniles. The US Attorney for each district should contact the Magistrate for coordination on this matter. A "juvenile" is defined by 18 USC 5031 as a person who has not attained his/her eighteenth birthday. The US Attorney will be able to furnish the minimum age at which juveniles become accountable for their actions and may be cited for them.

6-10. Uncooperative Violators. If an individual is uncooperative and refuses to accept a citation, the citing official should not press the issue. The citing of violators will in all cases remain secondary to the safety of the public and Corps personnel. In difficult situations, citing officials should request the assistance from local county or state law enforcement agencies. Surveillance procedures (without personal contact) can be used for the purposes of identifying the alleged violator, such as recording the vehicle license plate number and description, taking photographs of the violation, and obtaining statements of witnesses. No magistrate can issue a summon or a warrant for arrest/appearance without sufficient evidence.

6-11. Appearance Before US Magistrate.

a. In addition to the normal citation procedures, the written complaint on the back of DD Form 1805 will be prepared and signed by the citing officer. Such complaints will set out the pertinent details of the offense and names of witnesses, if any.

b. Citing officials will appear before the US Magistrate along with witnesses who agree to appear. The Visitor Assistance course, discussions with the US Attorney and on-the-job training will include the proper procedures to be followed when making an appearance before a magistrate. Personnel will appear in court, dressed in complete uniform, at the preference of the US Attorney or the US Magistrate. Demeanor should be polite and conversation succinct, with fully descriptive answers given to questions.

c. In instances where alleged violators fail to appear as directed, the magistrate may cause a summons or warrant for arrest and appearance to be issued. Service of summons or warrants for arrest and appearance are the responsibility of the US Marshal. If the magistrate requests that a Corps representative serve a summons to a violator, the individual will respectfully decline as being an action outside the scope of his/her authority.

6-12. Issuance of Citations Off Project Lands. One of the following methods will be used when it is necessary to issue a citation off project lands:

a. By certified or registered mail.

b. Presented while in the company of a local law enforcement officer.

c. Delivered by, or in the company of, a Federal law enforcement officer.

d. Personally delivered by the citation official himself/herself. This should be done only when it has been determined that no personal danger exists and after specific approval of the resource manager has been received.

EP 1130-2-550  
15 Nov 96

6-13. Legal Protection.

a. Federal law provides an immunity against lawsuits for employees acting within the scope of their employment. By virtue of this immunity, individuals who, in performing assigned duties, cause unintentional injury/harm to others are not considered personally liable. For this reason, lawsuits against individuals are rare. More frequent are claims filed against the US government as the entity responsible for the actions of subordinates while on duty. Claims against the Government are also seen as more lucrative than claims against individuals. Persons seeking a monetary judgement usually believe that the opportunity for payment is greater if the payee is the US Government.

b. Although lawsuits against individuals are rare, there are exceptions. An individual may be sued personally without the benefit of government mitigation when there is proof that he/she was:

- (1) acting beyond the scope of assigned duties;
- (2) intentionally causing harm to another by assault, battery, slander, etc.; or
- (3) violating another person's constitutional rights by making a false arrest or illegal search and/or a seizure of personal property.

6-14. Assault on Corps of Engineers Civilian Personnel.

a. If an assault occurs, the Corps individual should immediately attempt to remove himself/herself from the situation. If this is impossible, the individual should act to ensure personal safety and stop the assault, if possible. In no case, will Corps personnel go beyond the limits of what is absolutely necessary to establish and maintain control of the situation.

b. When an assault or other crime has occurred, several actions should be simultaneously initiated.

- (1) Seek and secure medical help for the victim(s) as needed.
- (2) Notify local or state law enforcement authorities immediately and request assistance as needed. Release all evidence to law enforcement officials upon their arrival to the incident scene.
- (3) Ensure the incident scene and any evidence are not disturbed until arrival of law enforcement authorities. Protecting the integrity of the scene may involve halting traffic or interrupting other activities through the incident scene.
- (4) Identify as thoroughly as possible all those involved in the incident as well as witnesses. Obtain name, license plate number and description of the assailant(s) and witnesses when possible.
- (5) Notify the supervisor of the victim immediately and request assistance, if appropriate. Victim's supervisor should promptly report the incident to the district Operations Chief who will notify the security and law enforcement office and the district Office of Counsel.

EP 1130-2-550  
15 Nov 96

c. From this point, the action chain and all coordination will be handled by the security and law enforcement office who will contact the United States Army Criminal Investigation Command (USACIDC) and HQUSACE. The USACIDC will call the FBI, if necessary.

d. Office of Counsel will monitor the prosecution of any case.

6-15. Reports. Statistical data on issued citations will be reported in Natural Resource Management System as directed in ER 1130-2-550, Chapter 12. Serious Incident Reports, submitted on DD Form 173/1 for incidents including, but not limited to, death, major fires and natural disasters, should be forwarded through the district and MSC offices to HQUSACE CEPM, with copy furnished to CECW-ON.

6-16. Preventive Vaccination.

a. Permanent and temporary park rangers and other personnel with visitor assistance responsibilities have been determined to be at a reasonable risk of exposure to blood-borne pathogens and other infectious material and must be provided the following as a minimum:

(1) Hepatitis B Vaccination. Hepatitis B vaccination is a condition of employment and must be made evident during the announcement/recruitment process. Since current vaccination protocol for Hepatitis B requires three inoculations over a six month period, it is imperative that new temporary employees (i.e., summer help) receive their first shot as soon as possible following selection.

(2) Personal Protective Equipment. Appropriate personal protective equipment shall be provided at no cost to the employee. Equipment may consist of, but not be limited to, gloves, gowns, laboratory coats, face shields or masks, eye protection, mouthpieces, resuscitation bags, pocket masks or other ventilation devices.

(3) Training. Blood-borne pathogen training of USACE employees will comply with OSHA requirements.

b. Unvaccinated individuals that have rendered aid or otherwise may have possibly been exposed to blood or other potentially infectious materials, must receive Hepatitis B inoculations within 24 hours of possible exposure. Post-exposure Hepatitis B inoculations have been shown to be effective, but the relative efficacy varies with different exposure situations.

c. Appropriate Exposure/Post Exposure Plans shall be developed to address the above requirements. All exposures or potential exposures by either vaccinated or unvaccinated individuals must be reported to the district occupational health office and/or health unit as soon as possible.



EP 1130-2-550  
15 Nov 96

## CHAPTER 7 - COOPERATIVE AGREEMENTS FOR LAW ENFORCEMENT SERVICES AT CIVIL WORKS WATER RESOURCE PROJECTS

7-1. Purpose. This chapter establishes guidance for the management of cooperative agreements for increased law enforcement services at USACE civil works water resource projects.

7-2. Background.

a. It is the policy of the Corps to provide, to the extent of its authorities, a safe and healthful environment for public use of lands and waters at civil works water resource development projects. To implement this policy and to augment the citation authorities granted to the Corps under Title 36 (CFR), Part 327, District Commanders, through the Secretary of the Army, have been delegated the authority to enter into cooperative agreements with states or their political subdivisions to obtain increased law enforcement services at civil works water resource projects to meet needs during peak visitation periods. Peak visitation periods are any periods during the year when visitation is sufficiently high to cause significant increase in risk to visitor welfare.

b. This pamphlet does not diminish or otherwise limit the existing law enforcement responsibilities of the state or local law enforcement agencies. However, non-Federal law enforcement personnel shall not be given Federal citation authority for enforcement of regulations contained in Title 36 (36 CFR 327). Enforcement of Title 36 regulations shall remain the responsibility of the Corps.

7-3. Guidance.

a. The cooperative agreement format in Appendix H must be executed and approved by the District Commander prior to the provision of supplemental law enforcement services.

b. The project manager will analyze the necessity for increased law enforcement. This involves a study of available data such as recreation use patterns, records on stolen or vandalized property, incident reports, reports of survey and local crime data. Empirical judgement of the project manager is important in evaluating the need for increased law enforcement but should not be the sole basis for initiating cooperative agreements. A summary of the analysis of need for increased law enforcement will be placed on file at the project office. When increased enforcement is deemed appropriate, the summary of the analysis will be used in preparing the plan of operation discussed in paragraph 7-3.e.

c. The Cooperator shall provide a copy of the Cooperator's basic daily log for the period during which the law enforcement services were rendered. Copies of these logs shall be compiled by the Cooperator and submitted to the Corps a minimum of once a month throughout the effective period of the current plan of operation.

d. An appropriate orientation program will be given by personnel of the Corps to all law enforcement personnel assigned to projects under cooperative agreements. The purpose of this orientation will be to familiarize the non-Federal law enforcement personnel with the policies and procedures of the Corps, and to familiarize personnel of the Corps with the functions and duties of the state or local law enforcement agency. The Corps shall reimburse the cooperator for the cost per man hour as set out in paragraph 7-3.e(3) for attending the orientation program.

EP 1130-2-550  
15 Nov 96

e. A cooperative agreement shall include, as an attachment, a plan of operation for the provision of law enforcement services. The plan of operation shall be prepared jointly by the District Commander, or an authorized representative of the Commander and the Cooperator, and shall contain but not necessarily be limited to, the following information:

(1) Name and location of the project or projects and specific areas (recreation and others) that require increased law enforcement services.

(2) Description of the increased law enforcement services to be provided by the cooperator under the cooperative agreement. Identify the time-of-day, number of hours-per-day, number of days-per-week, number of patrols, officers per patrol, and effective starting and ending dates.

(3) Cost-per-man-hour for the provision of reimbursable law enforcement services, and the costs for operation and maintenance of such equipment as allocated for use under the cooperative agreement.

(4) Names of specific individuals within the Corps and the cooperating agency designated to serve as contacts during execution of the agreed to services.

(5) Description of the billing procedures to be used for the increased law enforcement services. The Cooperator shall provide, at a minimum, the total charges, the number of hours involved, and the starting and ending dates of the billing period.

(6) A limit on payments for law enforcement services that may be claimed by the Cooperator in each fiscal year.

f. The project manager will monitor the Cooperator's performance to assure compliance with the terms of the cooperative agreement, including the plan of operation. If appropriate and necessary, the project manager may use techniques such as radio contact or personal contact with the Cooperator and/or a watchman's clock to assure that the Cooperator fulfills patrol requirements specified in the agreement. Deficiencies in the Cooperator's performance will be documented and reported to the district commander or the designated representative of the commander.

7-4. Annual Report. Fiscal year data will be compiled and entered into the Natural Resource Management System (NRMS). The data will include the information defined in Appendix I. RCS: CECW-O-39(R2) applies.

EP 1130-2-550  
15 Nov 96

## CHAPTER 8 - UNIFORMS FOR NATURAL RESOURCES MANAGEMENT TEAM MEMBERS

8-1. Purpose. This chapter establishes guidance for providing uniforms for Natural Resources Management Team Members and to authorize an initial uniform allowance and subsequent replacement allowances to personnel required to wear the uniforms.

8-2. Guidance. Uniformed individuals are primarily responsible for their appearance. Supervisory personnel are responsible for the enforcement of appearance standards as prescribed by this pamphlet. Individuals must wear the uniform in a manner that commands respect for both themselves and the Corps of Engineers. This requirement will be written into the job description as a condition of employment.

a. Uniforms will be worn in their entirety, i.e., by wearing all prescribed-items, including the badge if citation authority has been granted. Prescribed uniforms are listed in Appendixes J and K. Unprescribed articles of clothing will not be added to uniform apparel. (NOTE: Among the prescribed items, some articles of clothing, such as the blazer, duty jacket, overshell or windbreaker, may be omitted during mild climatic conditions.) Substitutions or deviations from the uniform specifications prescribed in this regulation require prior approval of HQUSACE (CECW-ON) WASH DC 20314-1000.

b. Uniforms will be kept clean, wrinkle-free and neat. Ill fitting, faded or shabby uniform items will not be worn. If "T-shirts" are worn, white T-shirts only are permissible. All shirt buttons will be fastened except the collar button on the summer uniform. Pockets will be buttoned and free of bulging objects. Trousers will be pressed with sharp creases.

c. Personnel authorized to wear the uniform will obtain all items required for their assigned position. When a change in uniform specification occurs, personnel may continue to utilize the previously prescribed items until replacement is necessary unless directed otherwise.

d. Uniform procurement and accounting procedures are detailed in Appendix L.

e. The District Chief, Natural Resources Management Branch or his/her authorized representative will establish specific dates for the switchover of seasonal uniforms. The switchover will be accomplished in an orderly manner.



EP 1130-2-550  
15 Nov 96

## CHAPTER 9 - RECREATION USE FEES

9-1. Purpose. This chapter establishes guidance for a Recreation Use Fee Program at civil works water resource projects.

### 9-2. Background.

a. PL 88-578, Land and Water Conservation Act of 1965, as amended, 16 USC 4601, provides that users of specialized sites facilities, equipment or services provided at Federal expense will be assessed fair and equitable fees. Fee schedules will be based upon distinguishable differences among the facilities of the Corps and those provided by other Federal agencies, non-Federal public agencies, and the private sector in the same service area.

b. PL 103-66, the Omnibus Budget Reconciliation Act of 1993, authorized the Corps to expand its recreation user fee program. The act authorizes the charging of user fees for day use facilities. There is no authority for charging entrance fees at Corps operated recreation areas.

9-3. Fees. Fees will be charged for specialized recreation sites facilities and services provided by the Corps of Engineers, as follows:

a. Campground Use Fees. A fee will be charged for single user unit campsites and group camp areas in accordance with the criteria shown in Appendix M.

b. Day Use Fees. A fee will be charged for the use of Corps operated day use facilities meeting the criteria in ER 1130-2-550, Chapter 9.

#### c. Special Facility Permit Fees.

(1) A fee may be charged for reserved group use of social recreation facilities (i.e., group picnic shelters, multipurpose courts, amphitheaters, athletic complexes, etc.)

(2) Fees proposed for the reserved use of special recreation facilities should be comparable to fees charged by other Federal or non-Federal public agencies or the private sector within the service area of the management unit.

#### d. Special Event Permit Fee.

(1) Special Event Permits shall include the HQUSACE prohibition relating to discrimination (see Appendix N for text). Requests for special events permits citing "special circumstances" for participation requiring gender or age discrimination must be accompanied by an exceedingly persuasive justification. When considered appropriate by the Project Manager, determinations on these permit requests shall be made by the District Commander or higher authority.

(2) Procedures for issuing special event permits are given in Appendix N.

EP 1130-2-550  
15 Nov 96

9-4. Controlling Paperwork Burden on the Public. The guidance in 5 CFR 1320 establishes the framework for the paperwork control process. Generally this CFR provides that an agency shall not engage in a collection of information (from the public) without obtaining Office of Management and Budget approval. There are no procedures contained in this pamphlet that should be interpreted to require the public to provide information other than data for receipt purposes.

9-5. Guidance - Fee Setting and Collection Criteria.

a. Supporting data should be developed which details fees and facilities for other Federal and non-Federal public agencies, as well as private entities in the service areas, so that an accurate comparison may be made. Where Corps facilities are of higher quality than similar competing state, local, or private facilities, a higher fee should be charged commensurate with the higher quality experience offered. It is recognized that the fee structure resulting from this evaluation may not permit recovery of the total cost to operate and maintain the facilities or the recreation area. The District Commander will consider the following in developing an appropriate use fee structure:

- (1) the construction cost of the facility;
- (2) the cost of O&M at that facility;
- (3) the comparability of this facility and its amenities to other facilities within a reasonable distance (30-60 miles can be considered reasonable);
- (4) the proximity of the facility to the water;
- (5) paved vs. unpaved roads;
- (6) availability of showers;
- (7) level of security; and
- (8) other factors, such as those described in ER 1130-2-550, Chapter 9, Recreation Use Fees, paragraph 9-2.

b. The District Commander will provide the established schedule of use fees to the MSC Commander NLT 30 December each year. In order to assure consistency and sound business practices, the MSC Commander will establish a procedure for periodic review/audit of the districts' establishment of fee schedules. The MSC Commander will approve or disapprove the recommendations. Information on approved use fee areas and charges will be submitted through the Natural Resource Management System (NRMS) as outlined in ER 1130-2-550, Chapter 12. Special Facility Permits and Special Events Permits will be reported as a separate category. RCS DAEN-CWO-39 (R2) applies.

c. Engineer districts whose boundaries coincide within a single state will coordinate fee proposals on projects within that state, to assure comparable fees for comparable facilities and services. To attain comparability between Federal and non-Federal fee schedules and the private sector, the District Commander may recommend fees below the minimum in Appendix M. Such recommendations will contain full justification for deviation from the proposed minimum fees.

EP 1130-2-550  
15 Nov 96

d. Normally, recreation use fees will be collected only at those areas where revenue exceeds the cost of collection. As a general rule, the fee program for an area will be terminated if the sum of direct and indirect costs of collection exceeds revenue for two consecutive years. This policy does not preclude the control of access with manned gates at non-fee areas.

e. In some unusual cases, it may be in the best interest of the public and the government to charge recreation use fees at areas where cost of collection has historically exceeded revenue collected. Should such areas be recommended for inclusion in the fee program, a written justification for such action will be submitted by the District Commander to the MSC Commander. The justification will explain:

(1) The management alternatives considered which could result in more economical fee collection and the impact of each alternative;

(2) The cost to operate and maintain the camp area if there is no fee collection; and

(3) If it is in the best interest of the Government or public to continue charging a use fee, close the camp area, or operate the camp area as a non-fee camp area.

f. **Effective Dates for Fee Collection.** District commanders will assess seasonal visitation patterns of individual fee areas to determine the period during which a fee program will be in effect. It is anticipated that fees will be charged at some areas throughout the summer months, while at other areas fees will be collected throughout the year.

g. **Public Relations.** In the interest of informing the public of the fee collection program, public relations activities will be conducted to disseminate information regarding this program at least two months before the collection of fees begins.

(1) District commanders will notify Congressional representatives, as appropriate, of the fee collection program in their Congressional districts.

(2) All areas designated as recreation use fee areas will be marked with appropriate signs that provide necessary instructions to users of the area within regard to collection of fees. Fee Area symbol will be displayed at the entrance to designated use fee areas. The U.S. Fee Area symbol will be installed prior to collection of fees in the area. U.S. Fee Area symbol decals are available from UNICOR, Federal Prison Industries Inc., Data Graphics Division, 311 First Street NW, Washington, D.C. 20534. Telephone: (202) 508-8462.

9-6. **Guidance - Methods of Collection.** ENG Form 4457 (User Permit) will be used as a permit and the official record for receipt of fees paid for use of campsites, other special sites, facilities, equipment, services and special events. The cardboard copy will be issued to the user; the white copy will be forwarded to the district office together with the collected fees; and the yellow copy will be retained for at least one year. ENG Form 4457 is available from the USACE Publications Depot. The Automated User Permit System (AUPS) may also be used to collect fees and issue permits.

a. **Campground Use Fees.** A maximum of 14 days in user fee charges may be collected for a single user unit campsite or group camp area in advance. Circumstances requiring a refund for unused portions of camping permits issued in this manner will be handled according to

EP 1130-2-550  
15 Nov 96

paragraph 9-10d. Fees for the use of camping areas will be collected by one of the following methods:

(1) Corps Personnel. Fees may be collected by uniformed Corps personnel at the entrance to the area.

(2) Contract Gate Attendants/Volunteers. Fees may be collected by contract gate attendants as part of their overall responsibility of providing control, information, or custodial services. Contractors will be properly identified to preclude unauthorized personnel from collecting fees. Operations Project Managers will arrange for frequent collections of use fees from the contractor or frequent deposits by attendants to preclude a large buildup of cash at the gatehouse. Collection of use fees by contract gate attendants is the preferred method of collection. Volunteers may perform these duties as described for the contract gate attendant, in accordance with Chapter 10, ER 1130-2-500.

(3) Multi-Area Fee Collection Stations. A multi-area fee collection station may be used where several recreation areas are grouped in the same general location. Such stations must have easy public access and must be easy for the public to identify. Multi-area fee collection stations could include project offices, visitor centers, a collection station at one of the areas being served or a station located on an access road common to all areas served. Where multi-area collection stations are used, it is especially important that there be good informational and directional signs to alert the public to the requirement for fees and to explain the location of the fee collection station.

(4) Roving Ranger. Fees may be collected by ranger personnel while on routine patrols through a fee camp area.

(5) Self Deposit Vault System. Where small and/or remote camp areas are included in the fee collection system, the Self Deposit Vault System may be used to reduce the cost of collection. The self deposit vault system will be implemented as follows:

(a) ENG Form 4839 (Self Deposit Permit), a sealable envelope with a detachable stub will be used to pay fees. The stub will be retained by the camper as his/her receipt and site identification. These forms will be procured locally as needed to meet program requirements.

(b) Located at the entrance of the camp area, a registration point will be provided which has:

(1) A sign instructing the user on the self deposit system, stating the fee for the area, and indicating a 50 percent reduction of fees for bearers of Golden Age or Golden Access Passports.

(2) A secure honor vault (program integrity guidance is provided at Appendix O).

(3) Supply of ENG Form 4839 (Self Deposit Permit).

© In camp areas administered in this manner, each campsite should be equipped with a holder for displaying the permit stub. The sign at the fee collection point should provide instructions for display of the permit stub.

EP 1130-2-550  
15 Nov 96

(d) Revenues will be collected from the deposit vault on a regular basis. While in the area, personnel will check to insure occupied campsites have appropriate permits displayed and the correct fees have been deposited.

b. Special Facility Permit Fees, Reserved Group Camp Area Fees and Special Event Permit Fees.

(1) Special facility fees, reserved group camp area fees and special event permit fees will be collected in person or by mail by the project manager, or his/her designated representative.

(2) Special event permit fees must be paid 15 days in advance of the scheduled special event.

(3) Reservations for the use of special facilities or for areas affected by special events will be effective only after full payment for the required permits has been received at the appropriate project office.

c. Day Use Fees. Fees for day use will be collected by one of the following methods:

(1) Control stations. Day use fees may be collected by either contract, volunteer or uniformed Corps personnel. Contractors and volunteers will be properly identified to preclude unauthorized personnel from collecting fees.

(a) A cash register may be used in the fee collection process to issue receipts to users. The cash registers will provide a minimum of two receipts; one receipt to be given to the visitor and the second to stay at the project for audit purposes. The receipts need to list the date, identify the recreation area, identify the individual making the transaction, and print "void" as needed. Visitors will be instructed to display the cash register receipt on the left side of the vehicle dashboard.

(b) AUPS may also be used to collect day use fees.

(2) Self Deposit Vault System. Where and when appropriate, the self deposit vault system may be used to reduce the cost of collection. The self deposit vault system will be implemented as follows:

(a) ENG Form 4839A, (Self Deposit Day User Permit) a sealable envelope with detachable stub, will be used to pay fees. The stub will be retained by the user as his/her receipt for display on the left side of the vehicle dashboard. These forms will be procured locally as needed to meet program requirements.

(b) The self deposit vault will be located at the entrance of the day use area. A registration point will be provided which has:

(1) A sign instructing the user on the self deposit system, stating the fee for the area, and indicating a 50 percent reduction of fees for bearers of Golden Age or Golden Access Passports.

(2) A secure honor vault (program integrity guidance is provided at Appendix O).

(3) Supply of ENG Form 4839A (Self Deposit User Fee Permit).

EP 1130-2-550  
15 Nov 96

(c) In day use areas administered in this manner, a sign at the fee collection point should provide instructions for display of the permit stub.

(d) Revenues will be collected from the deposit vault on a regular basis. While in the area, personnel will check to insure that appropriate permits are displayed and correct fees have been deposited.

(3) Automated Fee Collection. The use of automated fee collection systems is encouraged when cost effective. Commercial bill and coin counters may be useful in counting large amounts of small denomination currency.

(4) Mail Purchases. Annual passes may be sold through the mail, if payment is received in advance. Annual passes, however, may not be sold through the mail if a Golden Age/Golden Access Passport discount is requested.

(5) Other Methods. Fees may be collected by authorized Corps and contractor employees at project offices, visitor centers or on visits through a fee area. These collections may be made using a cash register, AUPS or ENG Form 4457.

#### 9-7. Golden Age and Golden Access Passports.

a. Golden Age or Golden Access Passport shall entitle the permittee and any person accompanying him/her in a single, private, non-commercial vehicle (or alternately, the permittee and his/her spouse, children, and parents where entry to the area is by any means other than a private, non-commercial vehicle) to use single user unit campsites at a rate of 50 percent of the established use fee, including the charge for electrical hookups. This 50 percent reduction is also applicable to use fees assessed visitors of registered campers. The reduction does not apply to group use fees unless all members of a group have such passports. The passports also entitle the holder and all accompanying passengers in a single, private, non-commercial vehicle to a 50 percent discount of the daily or annual day user fee.

b. Golden Age and Golden Access Passport Record (shown in Appendix P), will be used to record appropriate data and will serve as a record of accountability for the passports issued. Information recorded on ENG Form 4468-R should be maintained for one year and then may be discarded. In accordance with the Privacy Act of 1974, each individual from whom this information is requested, must be provided a Privacy Act statement, ENG Form 4468A (shown in Appendix P).

c. ENG Form 4840, Golden Age Passport and Golden Access Passport Eligibility Statement, must be completed for each passport issued. The recipient will sign the statement of eligibility and the issuing official will complete remaining entries on the form. The recipient should be provided a copy of this form on request. The purpose of this form is to provide for a statement of eligibility signed by the recipient. These forms are available from the USACE Publications Depot. Completed affidavits should be kept for one year and then be discarded.

d. Individuals eligible to receive the Golden Access Passport shall be any person who has a permanent physical, mental or sensory impairment that substantially limits one or more major life activities, such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning or working. Acceptable documentation for issuance of the passport will be any of the following:

EP 1130-2-550  
15 Nov 96

(1) A document issued by an office of a Federal agency providing Federal benefits, which attests to the fact that the individual has been medically determined to be eligible to receive Federal benefits as a result of blindness or permanent disability.

(2) A statement signed by a licensed physician attesting to the fact that the individual does have a permanent physical, mental, or sensory impairment that severely limits one or more major life activities and stating the nature of the permanent disability.

(3) An official identification card or certification issue by a state government identifying the individual as being a permanently disabled person.

(4) An identification card issued by a national or state organization of, by or for disabled persons identifying the individual as a permanently disabled person. (i.e., American Foundation for the Blind; Paralyzed Veterans of America).

(5) If the individual does not have any of the above documentation in his/her possession, show them the Statement of Eligibility (ENG Form 4840). Any individual willing to sign the statement should be given the passport.

9-8. Guidance - Accounting.

a. Revenue collected from the users of facilities at recreation areas managed by the Corps will be deposited in a special account in the U.S. Treasury.

(1) Recreation use fees may be directly transmitted to servicing finance and accounting (F&A) offices (or servicing Federal Reserve Bank, if this is an approved District practice) by contract gate attendants or volunteers, if adequate control and protection of funds is provided and contracts reflect this procedure. Appendices Q and R provide guidance and procedures for the direct transmittal of recreational use fees and for maintaining funds security.

(2) These funds will be made available for use in the furtherance of Corps of Engineers recreation program. PL 92-347 provides that a report shall be submitted annually, not later than 31 March, to the Congress on the number and location of fee collection areas, number and location of potential collection areas, capacity and visitation information, the fees collected, and other pertinent data. Reporting requirements are outlined in ER 37-2-10 and ER 1130-2-550, Chapter 12, Natural Resource Management System. RCS DAEN-CWO-39 (R2) applies.

b. The annual report on recreation use fees will show the cost of administering the program itemized by direct cost and indirect cost per area. Direct costs of collection are those costs resulting solely from fee collection activities. Direct costs will include the time Corps personnel or contract gate attendants are directly involved in fee collection. Personnel costs for duties other than fee collection will not be charged to this account. The portion of the gate attendant contract to be charged to direct costs will depend on the language of the contract which delegates duties and responsibilities. Indirect costs of collection are efforts of project office and District office personnel associated with the program and chargeable under the "one-hour rule." Also, indirect costs should include district overhead distribution to the program.

c. All income derived from fee collection will be deposited into Special Receipt Account 96-145005.4 and reported in accordance with ER 37-2-10 and ER 1130-2-550, Chapter 12, Natural Resource Management System. Additionally, records on income will be maintained by

EP 1130-2-550  
15 Nov 96

fee collection area for the purpose of reporting to Congress the efficiency of the program. The income and the cost of collecting fees for special facility use and special events permits will be reported by project.

d. Refunds. No refunds for recreation use fees may be made at the project. Refunds may be made by check at the appropriate office serving the district upon presentation, either in person or by mail, of the recreation use fee receipt which has been appropriately marked as eligible for a refund by the operations project manager/ranger. The operations project manager/ranger must certify that an emergency condition existed which in his/her opinion justifies the issuance of a refund.

9-9. Security Measures.

a. As a minimum, managers will consider the following options to enhance the security of personnel handling funds as well as safeguarding the funds themselves:

- (1) Collect and deposit funds frequently to reduce the amount stored on-hand.
- (2) Vary the times of collection and deposit to avoid developing patterns and becoming a target.
- (3) Vary the routes to and from collection and deposit, if possible, to avoid patterns.
- (4) Maximize the use of credit cards to reduce the cash stored on hand.
- (5) Contract for private security to collect and deposit funds.
- (6) Include collection and deposit of funds in cooperative law enforcement agreements.
- (7) Ensure personnel collecting and storing funds work in pairs and have reliable communication equipment (radios or cellular phones) available at all times.

b. District security managers will assist operations project managers in assessing the criminal threat to their operation and recommending protective measures.

c. District security managers will review the security of personnel and funds during biennial physical security inspections.

EP 1130-2-550  
15 Nov 96

## CHAPTER 10 - USE OF OFF-ROAD VEHICLES ON CIVIL WORKS PROJECTS

10-1. Purpose. This chapter establishes guidance for off-road vehicles (ORV) operations on USACE civil works project lands.

10-2 Background. It is the policy of the Secretary of the Army, acting through the Commander, HQUSACE, to provide the public with safe and healthful recreational opportunities within all water resource development projects administered by the Commander, HQUSACE. The implementation of this policy requires the utilization of sound and comprehensive management practices and plans for all resources on project lands and waters including protection and enhancement of environmental quality, conservation of renewable and non-renewable resources, prevention of loss or damage to resources, protection from accidental injury, and opportunities for outdoor recreation.

10-3. Guidance.

- a. Ensure that adequate opportunity for participation by the general public, user groups, and conservation organizations is afforded in the process of selection and designation of the specific areas and trails and the uses to be permitted on those areas and trails.
- b. Where appropriate, establish additional regulations, consistent with Chapter III, Title 36 (CFR), to those contained in paragraph 1-1 of this pamphlet, prescribing operating conditions for off-road vehicles as they may be required for specific projects.
- c. Ensure adequate notification to potential users, including distribution of information maps, indicating areas and trails where off-road vehicular use is and is not permitted. Appropriate signs designating areas and operating conditions of vehicle use will be posted at areas and trails designating such use. Areas where off-road vehicle use is permitted and prohibited will be displayed on maps available at the project office and the District Commander's office.
- d. Provide proper administration, enforcement, and monitoring of trails and areas to insure that conditions of use are met on a continuing basis.
- e. Establish appropriate procedures to monitor the effects of the use of off-road vehicles. This monitoring may be the basis for changes to the regulation on use of off-road vehicles or the project master plan to insure adequate control of off-road vehicle use and amendment of area and trail designations to protect the environment, insure the public safety, and minimize conflicts among users. An outline of a monitoring plan appears in Appendix S.
- f. Insure that out-granted lands are not included in such designation for off-road vehicle use unless concurrence is obtained from the agency or lessee operating the outgranted lands.
- g. Ensure that project lands are adequately identified and marked where off-road vehicles are designated.

10-4. Guidelines and Criteria for Evaluating Project Lands for Off-Road Vehicle Use. Project resources, while composed of a variety of physical conditions, may contain areas which would

EP 1130-2-550  
15 Nov 96

allow use of certain areas and trails by off-road vehicles. Borrow areas and unused contractor work areas are examples where compatible off-road vehicle use could be designated and allowed.

a. Designation. Project lands which are found to satisfy the requirements for off-road vehicle use will be zoned for areas and trails in accordance with paragraph 10-4b below.

(1) Areas. The very nature of off-road vehicles dictates that the majority of use will occur over areas which have not been developed for specific vehicular use. Off-road vehicles are manufactured, advertised, sold and purchased within the concept that the purpose and sport of operating these vehicles lies in operation over rugged, undeveloped terrain. To invite users of off-road vehicles to areas which are designated for that purpose, the designated area must contain topography suitable to the vehicles that will be used and have ready access by the public.

(2) Trails. Where it practicable to designate existing or proposed trails for use by off-road vehicles without conflict with other public uses or without loss of natural characteristics of the areas resulting in environmental despoilment, degrading local safety or accident prevention programs, such designation should be accomplished.

(3) Types of Use. Off-road vehicles are of many types resulting in different design, space, and terrain characteristics for areas of use. Provision should be made in the designation of areas and trails to accommodate as many types as feasible and still be practical, consistent with environmental, resource, and safety considerations. These would include, for instance, mini-bike, beginners, motor-cross, cross country, snowmobile, 4 Wheel Drive (4WD), etc. areas and trails. As these uses may not be compatible within the same area or on the same trail, care must be exercised to insure adequate separation to increase public and user safety and compatibility.

b. Criteria. The following criteria will be used in evaluating project lands for possible off-road vehicle use designation.

(1) Areas which are not restricted for security, safety or accident prevention purposes.

(2) Areas which do not contain soil conditions, flora or fauna or other natural characteristics of a fragile or unique nature, or areas scheduled for reforestation plantings which would be subject to excessive damage by use of off-road vehicles.

(3) Areas which are not managed for wildlife habitat purposes, and areas managed for wildlife habitat if approved by the fish and game agency.

(4) Areas which do not contain archeological, historical, or paleontological resources; or which do not constitute de facto wilderness or scenic areas; or in which noise would not adversely affect other users or wildlife resources.

(5) Areas and trails shall be located to minimize damage to soil, watershed, vegetation or other resources of the public lands.

(6) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitat.

(7) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreation uses of the same or neighboring public and private

EP 1130-2-550  
15 Nov 96

lands, and to insure the compatibility of such uses with existing conditions in populated areas, taking into account noise, safety, accident prevention and other factors.

10-5. Operating Conditions.

a. Off-road vehicles shall not be operated:

(1) In a reckless, careless or negligent manner;  
(2) In excess of prudent and safe speed limits; and  
(3) In a manner likely to cause excessive damage or disturbance of the land, wildlife, or vegetative resources.

b. All off-road vehicles will conform to applicable state laws and registration requirements for such vehicles and those powered by internal combustion engines shall be equipped with operating brakes and a properly installed muffler in working condition certified as not exceeding 90 decibels at a distance of 50 feet.

c. Where appropriate and necessary internal combustion engine off-road vehicles, operating off established road and parking areas, shall be equipped with a properly installed spark arrester that meets and is qualified to either the U. S. Department of Agriculture - Forest Service Standard 5100-lb (available from USDA Forest Service, San Dimas Technology and Development Center, 444 East Bonita Avenue, San Dimas, California 91773) or the 80 percent efficiency level when determined by the appropriate Society of Automotive Engineers (SAE) Recommended Practices J 335 or J 350. The U.S. Department of Agriculture - Forest Service performs these spark arrester qualification tests under cooperative agreements wherein the spark arrester manufacturer agrees to pay an established fee commensurate with the actual cost of testing. Such areas, designating spark arrester use, will be appropriately signed and marked on maps available in the Project and District offices.

d. Adequate information will be provided to off-road vehicle operators and passengers on the advisability of using safety helmets conforming to standards established by the American National Standards Institute, as in their standard, Number Z90.1(1971). If state or local laws require the use of safety helmets for off-road use, this fact will be noted in the project operating conditions.

e. District commanders may establish additional operating conditions or rules consistent with Chapter III, Title 36 (CFR), specifically for each project, which could include items such as, opening and closing dates of areas and trails, daily opening and closing times, and areas which may have unique conditions or hazards.

10-6. Public Involvement. The key to successful implementation off-road vehicle use of project lands involves the opportunity for full participation by the general public, off-road vehicle user groups, conservation organizations, and other interested public in the selection, designation, and uses of Project lands for off-road vehicle use. Accordingly, district commanders will establish procedures to:

a. Identify such individuals and groups and solicit their participation and views in the process.

EP 1130-2-550  
15 Nov 96

b. Hold appropriate public meetings or workshops; one at the initiation of consideration of off-road vehicle use for a project and a second, prior to informal designation of areas and trails and operating conditions. When necessary, additional public meetings or workshops may be held to obtain public reaction to various proposals under consideration. Under no circumstances will area and trail designation be made or operating conditions established without such public participation.

10-7. Enforcement. Action regarding persons who abuse the privilege of using designated areas and trails and operating conditions prescribed for the project under these regulations will be taken under the citation authority program and in accordance with Title 36 (CFR) Part 327.

10-8. Environmental Considerations. Prior to designation of areas or trails for use by off-road vehicles, district commanders will insure that full and careful assessment and consideration is given to the possible impacts and effects on the environment of the area. Where this environmental assessment indicates significant environmental impacts will be associated with off-road vehicle use, an environmental impact statement will be prepared and processed. Such assessment shall not be limited to the proposed designated areas or trails, but shall also encompass adjacent areas which may be affected.

a. Air. Air quality which could be affected by dust from the use of off-road vehicles and internal combustion engines will be considered.

b. Water. Siltation and water quality of streams or other bodies of water due to soil erosion created by off-road vehicles will be considered.

c. Soils. Soil erodability and compaction as well as desirability for proposed use by off-road vehicles will be considered.

d. Vegetation. The protection of native and other desirable species of vegetation will be considered.

e. Fish and Wildlife. Protection of breeding grounds, drumming grounds, winter feeding and yarding grounds, migration routes and nesting areas is essential. Spawning, migration and feeding habits of fish and other aquatic organisms will be considered where off-road vehicles will be used in streams or other bodies of water. Particular attention will be given to off-road vehicle use which could have adverse effects on rare or endangered species of animals and unique plant communities in the immediate area or in adjacent areas. This matter requires coordination with the U.S. Fish and Wildlife Service per the Endangered Species Act when there is potential impact to federally listed species. Site selection for ORV use will strive to minimize adverse impacts on fish and wildlife resources.

f. Noise, Safety, and Accident Prevention. Excessive noise as it affects humans and wildlife as well as accidental injury, damage or loss to project resources will be considered.

g. Aesthetics. Potential despoilment of visual characteristics will be considered.

EP 1130-2-550  
15 Nov 96

## CHAPTER 11 - SEAPLANE OPERATIONS ON CIVIL WORKS WATER RESOURCES DEVELOPMENT PROJECTS

11-1. Purpose. This chapter establishes guidance for seaplane operations at civil works water resource projects in order to protect project resources, the integrity of all authorized uses of Corps projects, and the safety of all users of the lake projects.

### 11-2. Guidance.

a. The operation of seaplanes is allowable in accordance with ER 1130-2-550. In determining sites for potential seaplane operations, the District Commander shall:

(1) Examine and investigate each Corps project within his/her district which a seaplane operator could conceivably attempt to use for seaplane operations, and determine those projects, or portions thereof, in which seaplane operations should be prohibited. Seaplane operations at water resource development projects administered by the Commander, HQUSACE may involve hazards including, but not limited to, conflicting recreational activities, floating debris, and underwater hazards, which may be accentuated by the normal fluctuations of water levels.

(2) Establish such restrictions on seaplane operations as he deems necessary or desirable in accordance with this chapter and ER 1130-2-550. Seaplane takeoff and landing maneuvers within specified distances of the shoreline, bridges, causeways, water utility crossings, dams, and similar structures should be prohibited.

(3) Prior to concluding any such examination and investigation, consult with the FAA, appropriate state aeronautical agency, lessee or licensee of outgranted lands, the Coast Guard, state boating law administrators, aeronautical associations, and use his best efforts to consult with other interested or affected public authorities and private interests for their guidance, particularly for those projects which are regularly used by the public for recreational purposes or are located in the vicinity of actively used airports, air fields, or densely populated areas. News releases, public notices, and congressional liaison should be used. Public hearings are encouraged.

(4) In making his investigation, examination, and determination, consider environmental factors in accordance with the National Environmental Policy Act of 1969 (NEPA), Public Law 91-190. The impact that seaplane operations may have on the safety at the project, aquatic, fish and wildlife, noise levels, recreation, and air and water quality must be considered. Prior to concluding any such investigation and examination, he shall prepare an environmental impact assessment (EIA) and, if necessary, an environmental impact statement (EIS) assessing the environmental impacts of permitting seaplanes to operate at the projects, or portions thereof, in his district.

(5) Notify the FAA by letter of projects, or portions thereof, where seaplane operations are prohibited or restricted. The letter should use the words seaplane operations prohibited, or seaplane operations restricted to describe the geographical location of such areas as precisely as possible, describe any restrictions, include a telephone number for FAA to contact the District, and be sent to: Federal Aviation Administration, Area Traffic Service, Flight Services Division (AAT-432), 800 Independence Avenue, SW, Washington, D.C. 20591.

EP 1130-2-550  
15 Nov 96

(6) After completion of an examination, investigation, determination and notification of the FAA of projects, or portions thereof where seaplane operations will be prohibited or restricted, the District Commander should periodically reevaluate the determination as additional operational data becomes available. The District Commander may modify, delete, or add projects, or portions thereof, where seaplane operations are prohibited or restricted. Except where immediate action is required, he should consult with appropriate public authorities and private interests for their guidance with regard to such actions. Notification of these actions shall be forwarded to the FAA as indicated in the above paragraph.

b. Seaplanes may not be operated at Corps projects between sunset and sunrise unless adequate lighting and supervision are available.

c. Appropriate signs in accordance with Chapter 6 of ER 1130-2-500, should be employed to inform users of projects, or portions thereof, where seaplane operations are permitted. Local seaplane operation information should be included in applicable Corps maps and brochures to adequately apprise the public and interested agencies of projects, or portions thereof, where seaplane operations are prohibited or restricted. Each map, brochure, or other notice should clearly indicate that operation of a seaplane at Corps projects is at the risk of the plane's owner, operator and/or passenger(s).

d. Seaplanes on project waters and lands in excess of 24 hours shall be securely moored at mooring facilities and at locations permitted by the District Commander. Seaplanes may be temporarily moored on project waters and lands, except in areas prohibited by the District Commander, for periods less than 24 hours providing that (1) the mooring is safe, secure, and accomplished so as not to damage the rights of the government or members of the public and (2) the operator remains in the vicinity of the seaplane and reasonably available to relocate the seaplane if necessary.

e. No commercial operation of seaplanes from project waters will be allowed without written approval of the District Commander following consultation with and the necessary clearance from the Federal Aviation Administration (FAA) and other appropriate public authorities and affected interests. Requests for public commercial facilities in support of seaplanes will be handled under normal concession policies.

f. Permits for floating and non-floating structures of any kind, in, on, or affecting project waters, under the management of the Operational Project Manager, including waters under lease, license or other outgrant agreement, shall be handled in accordance with the lakeshore management plan or policy statement for the project involved, Part 327.19 of Title 36 (CFR) and, where required by statute or regulation, Section 10 of the River and Harbor Act (approved 3 March 1899) and Section 404 of the Federal Water Pollution Control Act of 1972 (PL 92-500).

g. Nothing in the preceding provisions bestows authority to deviate from rules and regulations or prescribed standards of the State Aeronautical Agency, Federal Aviation Administration, Coast Guard, or other appropriate federal, state, or local authority.

EP 1130-2-550  
15 Nov 96

## CHAPTER 12 - NATURAL RESOURCE MANAGEMENT SYSTEM

12-1 Purpose. This chapter establishes guidance for the Natural Resources Management System (NRMS), which is a system designed for collecting and analyzing annual USACE recreation facility and natural resource management information

12-2 User Manual and Reporting Guidance. The NRMS User Manual will be provided by HQUSACE to the field and updated periodically. The NRMS Users Manual provides specific data descriptions, content and format for the system. The reporting period for the NRMS will cover the calendar year 1 January through 31 December with the exception of funding data which will pertain to the previous fiscal year.

12-3 Assigning Project Numbers and Area Codes for New Projects and New Areas. The five-digit project number assigned by HQUSACE will be used for new projects added to the system, area codes are assigned at the District level. When the name or area code of a recreation area is changed or added to the NRMS, the district will notify HQUSACE through appropriate division office. This notification of area name and code changes and additions will be accompanied by an explanation of why and when the change or addition took place. Changes will be reported by letter within 90 days following the official change.

12-4 Recreation Areas. For the purposes of the NRMS, a recreation area is a single block of land developed and utilized for outdoor recreation purposes or covered under a long-term license or lease agreement to a public agency for recreation purposes. A recreation area which may be entered into the NRMS is an area which may be identified as separate management unit. For example, a state may have a single lease agreement with the Corps, but may operate and maintain three separate parks or recreation areas; all should be entered separately. Quasi-public areas are considered to be separate recreation areas.



EP 1130-2-550  
15 Nov 96

## CHAPTER 13 - RECREATION USE SURVEYS

13-1. Purpose. This chapter provides guidance on conducting recreation use surveys on Corps water resource development projects. The goal of conducting recreation use surveys is to develop visitation estimates which are consistent, reliable, and credible for all Corps projects.

### 13-2. Procedure.

a. The Office of Management and Budget (OMB) approval to conduct recreation use surveys has been granted to the U.S. Army Corps of Engineers through 30 September 1998. The OMB Control Number is 0710-0002. Survey hours are limited. Requests for survey hours will be submitted by the MSC Commander to HQUSACE (CECW-ON) by 1 October of each year. This request will include, (1) the number of areas to be surveyed, (2) and the number of survey hours needed. When requests exceed the total hours available from OMB, HQUSACE (CECW-ON) will prorate the total hours to the MSC commanders.

b. The Visitor Estimating and Reporting System (VERS) is the official and only authorized reporting procedure that is used for computing visitation at Natural Resource Management System (NRMS) projects. VERS is comprised of four microcomputer based programs designed to estimate and report recreation use on Corps projects.

c. The estimates used by VERS to compute visitation are based on recreation use surveys conducted at recreation areas where car counters are used to monitor vehicular traffic. VERS processes data collected through the Direct Data Entry System (DDES).

d. VERS training is mandatory prior to collecting survey data and is provided through Proponent Sponsored Engineer Corps Training (PROSPECT) courses and workshops through the Waterways Experiment Station (WES).

e. FOAs are responsible for budgeting time and funds to implement recreation user surveys. Priority consideration should be given to surveying recreation areas that are representative of other areas within the project or district.

f. Visitation information is reported annually through the NRMS update.

13-3. Data Retention and Archiving. The WES is the repository of VERS information. Upon completion of surveys, FOAs should contact CEWES-EN-R and provide the necessary data files. Survey data collected through VERS and archived at WES is of significant utility in national studies requiring characterizations of project visitors and their use of Corps projects.



EP 1130-2-550  
15 Nov 96

CHAPTER 14 - NATURAL RESOURCE MANAGEMENT MAINTENANCE UNIFORMS

Reserved.

FOR THE COMMANDER:

19 APPENDIXES  
See Table of Contents

A handwritten signature in black ink, appearing to read "Otis Williams". The signature is written in a cursive, flowing style.

OTIS WILLIAMS  
Colonel, Corps of Engineers  
Chief of Staff



## CHAPTER 15 – RECREATION MANAGEMENT SUPPORT PROGRAM

15-1. Purpose. This chapter establishes guidance for the administration and management of the USACE Recreation Management Support Program (RMSP).

15-2. Background. The Recreation Management Support Program (RMSP) was initiated in FY 1999. The RMSP is funded by the O&M General appropriation and encompasses activities previously conducted through the Recreation Research Program (RRP) and the Natural Resources Technical Support (NRTS) program. A Recreation Leadership Advisory Team (Team) provides oversight of the RMSP. The Team evaluates all proposals for funding within the RMSP and recommends funding priorities to HQUSACE (CECW-ON). The US Army Engineer Research and Development Center (ERDC) provides program management support for execution of approved RMSP activities. The Team also supports the strategic planning for the Corps recreation business program and serves in an active advisory role to the Chief, Natural Resources Management Branch in HQUSACE.

15-3. Mission and Goal.

a. The RMSP will have as its cornerstone policy the Natural Resources Stewardship Mission Statement as included in ER 1130-2-540 dated 15 November 1996.

b. The goal of the RMSP is to provide a mechanism for identifying national recreation program priorities and addressing those priorities through valid research, management support, and technical information transfer.

15-4. Program Components.

a. The RMSP is designed to provide support for recreation issues or initiatives that have a broad applicability to many Corps Civil Works projects. Reimbursable work is not within the scope of the RMSP. However, issues or initiatives that are limited in applicability can be addressed on a reimbursable basis with funding provided by the local project. The three basic components of the RMSP are:

b. Management Studies. Management studies are generally long-term activities (greater than or equal to one year) and of a regional or national significance. The ERDC will provide program management support, although studies may be performed by other USACE elements, other agencies, or the private sector.

EP 1130-2-550  
Change 1  
1 Oct 99

c. Management Assistance. Management assistance may be a short-term study (less than one year) or may be on going assistance in managing a recreation component (e.g., National Recreation Reservation Service). Management assistance may not always have a broad national or regional application, but must be considered to be a national priority. The appropriate method for obtaining management assistance will be determined for each funded effort. For example, management assistance might be provided by a district in support of the Visitor Assistance Program, or it might be obtained from ERDC in support of annual economic impact analysis reports.

d. Information Exchange. Information exchange includes not only technology transfer but also the distribution of research results to bring about program enhancement. The appropriate method for developing and maintaining ongoing information exchange will also be determined for each funded effort.

15-5. Program Meetings.

a. A Recreation Leadership Advisory Team will be established and will meet semi-annually during each fiscal year, preferably during the months of October and April. HQUSACE and ERDC will participate in all Team meetings.

b. Fall Team Meeting. The fall meeting each year will serve primarily as a strategic planning session for the purpose of identifying high priority issues and establishing RMSP priorities. The Team will utilize new information as well as the existing "Issue Areas" and "Research Focus Areas" contained in the Natural Resources Research Program Strategy Task Force Final Report dated September 1994. The following input will be available to the Team during the fall meeting:

(1) Annual Trends Report prepared by ERDC. This report will capture trends as well as emerging issues that may impact the Corps Recreation business program. The report will include a summary of trends/emerging issues identified by other federal, state, and private sector recreation providers.

(2) Annual Program Report provided by HQUSACE. This report will capture emerging recreation issues from a national policy perspective to include a discussion of new legal requirements and initiatives. It will also include HQUSACE priorities for management studies, management support, and information exchange.

(3) Issues From Regional Team Members. Each Team member will be responsible for obtaining input from their division office, district offices, project offices, and recreation stakeholders (as appropriate). Team members will present both policy issues as well as RMSP proposals for management studies, management assistance, and information exchange.

(4) Status of Ongoing RMSP Activities. HQUSACE, ERDC, or others responsible for ongoing RMSP activities will provide a status report on each RMSP funded activity.

(5) Status of Overall RMSP Program. The HQUSACE and ERDC Team members will provide an overview of the total RMSP program funding status for the previous and upcoming fiscal years so that funding adjustments can be considered.

c. The fall Team meeting will result in the following products:

(1) The identification of high priority policy issues to be addressed by HQUSACE.

(2) The identification of high priority RMSP needs to be further developed for consideration during the spring Team meeting.

(3) The recommendation of a "Proponent" for each high priority RMSP need who will be tasked with developing a written "Statement of Need" to better define the customer's expectations.

(4) The tasking of ERDC to work with each "Proponent" in the development of a "Proposed Study Plan" for consideration during the spring Team meeting.

(5) Recommendations to HQUSACE for minor adjustments to the current fiscal year work plan and long range work plan.

#### 15-6. Spring Team Meeting.

a. The primary purpose of the Spring Team Meeting will be to review "Statements of Need/Proposed Study Plans" and to develop recommendations for new starts for the upcoming fiscal year. The following input will be available to the Team during the spring meeting:

EP 1130-2-550

Change 1

1 Oct 99

(1) Statement of Need/Proposed Study Plan Presentations. The “Proponent” and the ERDC Principal Investigator will jointly present proposals for consideration by the Team for those high priority needs identified during the fall Team meeting.

(2) New High Priority Funding Issues from Team Members. Each Team member will have the opportunity to submit new high priority issues that were not identified during the fall Team meeting. Only those issues considered to be extremely urgent will be considered for funding during the spring Team meeting.

(3) Status of Overall RMSP Program. The HQUSACE and ERDC Team members will again provide an overview of the total RMSP program funding status for the current and upcoming fiscal years so that funding adjustments can be considered.

b. The spring Team meeting will result in the following outputs:

(1) Recommendations to HQUSACE for new starts for the upcoming fiscal year.

(2) Recommendations to HQUSACE for minor adjustments to the current fiscal year work plan and long range work plan.

15-7. Final Approval of RMSP Funding. HQUSACE will provide conceptual approval (subject to the availability of funds) for all new starts and other program funding adjustments by July of each year. The final approval of the actual work plan will be provided by HQUSACE following the Fall Team Meeting. Following final approval from HQUSACE, the “Proponent” will be empowered to act on behalf of HQUSACE and the Team to provide field input into the implementation of the approved work plan. The Recreation Leadership Advisory Team will continuously monitor the progress of all approved work during both the annual and mid-year Team meetings.

15-8. Statements of Need, Proponents, and Study Plans.

a. Statements of Need. A clearly defined “Statement of Need” is the first step (and most critical) in developing an approach to a management study. A Statement of Need should be concise (three to five pages) and provide the following information:

(1) Description of current situation.

EP 1130-2-550  
Change 1  
1 Oct 99

- (2) Statement of why the current situation is a problem.
- (3) Identification of the extent, frequency, and impact of the problem.
- (4) Statement of the capability required to solve the problem.
- (5) Statement of the future desired situation after implementation of the solution.
- (6) Other relevant information required to develop an effective study approach.

b. Proponent. A Proponent will be recommended by the Team to develop each high priority issue into a "Statement of Need". If a proponent is not a Team member, a request will be coordinated with HQUSACE prior to asking the "Proponent" to serve in this capacity. The "Proponent" will then be assigned the responsibility for fully developing the "Statement of Need" and working with the ERDC Principal Investigator to ensure the "Proposed Study Plan" is responsive to the "Statement of Need".

c. Proposed Study Plans. A "Proposed Study Plan" will be developed by ERDC working in conjunction with a "proponent", in response to a Statement of Need. The study plan is a critical document that provides the Team with detailed information on the scope, approach, resources required, and potential payoff of conducting a management study. A study plan will usually be between 15 to 25 pages in length that provides the following information:

- (1) Statement of the problem from a research perspective.
- (2) Review of related studies, activities and programs with potential for leveraging and partnerships.
- (3) Recommendation on whether a study is feasible or needed to meet the requirement of the Statement of Need.

d. If a study is determined by the principal investigator to be feasible, the Study Plan will also include the following items:

- (4) Study objective.
- (5) Study approach and procedures.

EP 1130-2-550  
Change 1  
1 Oct 99

- (6) Study products and target audiences.
- (7) Technology transition.
- (8) Cost estimate.
- (9) Schedule of deliverables.

15-9. Recreation Leadership Advisory Team.

a. The Recreation Management Support Program (RMSP) will be headed by a Recreation Leadership Advisory Team (Team) consisting of eighteen members. Each MSC/Regional Office will be represented on the Team. In addition four district offices will be represented and four project offices will be represented. The Team will have 16 voting members, two from each Major Subordinate Command (MSC). Two additional non-voting members of the Team will include a HQUSACE representative and a ERDC representative. Every two years one member of the Team will be selected to serve as chairperson. The chairperson will facilitate the Team meetings, participate in the annual Headquarters briefings associated with the RMSP as necessary, and oversee the voting associated with the Team decision making process.

b. Voting members of the Team will normally serve four-year terms. Terms for the initial members of the Team will be staggered with some serving two, three, four and five years respectively in order to establish a continuous rotational membership. Beginning in FY 2001, two new members will rotate onto the Team. Nominations for Team membership will be submitted annually to CECW-ON. Each MSC can nominate one division level person, one district level person and one field level manager annually for selection into the Team. CECW-ON will consult with the Team and select the new members from the list of nominations. On any and all issues requiring a vote by the Team, a simple majority vote is necessary to carry a decision. In case of a tie vote, the HQUSACE Team Member will cast the deciding vote.

15-10. Responsibilities.

a. Recreation Leadership Advisory Team. The Team activities and functions include the following:

(1) Provides input and makes recommendations to the strategic planning vision for the Corps overall recreation program.

(2) Provides recommendations on national priorities for the Corps recreation program.

(3) Identifies management support needs to address national priorities.

(4) Reviews and recommends annual and long range work plans to include funding.

(5) Assigns proponents for approved work.

(6) Monitors on-going work.

(7) Serves as regional POC for RMSP.

(8) Team Chair participates in annual HQUSACE briefings on RMSP as necessary.

(9) Serves as an ad hoc advisory body to HQUSACE on issues of national significance.

b. The HQUSACE representative on the Team is responsible for the following:

(1) Serves as a non-voting member on the Team

(2) Schedules Team meetings.

(3) Facilitates communications between Team, ERDC, and HQUSACE.

(4) Prepares annual recreation program report for presentation at the fall Team meeting.

(4) Provides funds management and program approvals for HQUSACE.

(5) Participates in annual HQUSACE briefings.

c. ERDC. The ERDC Program Manager is responsible for overall execution of the RMSP program as approved by HQUSACE. ERDC activities include the following:

(1) Serves as a non-voting member on the Team.

EP 1130-2-550  
Change 1  
1 Oct 99

- (2) Prepares annual trends report.
- (3) Works with the proponent to develop proposed study plans.
- (4) Presents study plans to the Team.
- (5) Prepares annual and long-range work plans.
- (6) Manages and executes assigned programs.
- (7) Participates in annual HQUSACE Briefing.

d. Proponent. The proponent is responsible for the following:

- (1) Develops Statements of Need.
- (2) Works with ERDC during the development of the study plan.
- (3) Presents the Statement of Need to the Team and supports ERDC in presenting the study plan.
- (4) Interacts with ERDC throughout the implementation of the work plan.

EP 1130-2-550  
15 Nov 96

APPENDIX A

REFERENCES

- a. 5 USC 5901, Section 164, Supplemental Appropriations Act of 1983 (PL 98-63).
- b. 16 USC 460d, Sec. 4, Flood Control Act of December 22, 1944 (58 Stat. 889), as amended.
- c. 16 USC 469 et seq., Archeological and Historic Preservation Act, as amended ("Reservoir Salvage Act").
- d. 16 USC 470 aa-11, Archeological Resources Protection Act of 1979.
- e. 16 USC 580m and n (PL 86-717).
- f. 16 USC 661 et seq., Fish and Wildlife Coordination Act, as amended.
- g. 16 USC 1531 and 1536, Endangered Species Act, as amended.
- h. 16 USC 4601-4. Land and Water Conservation Fund Act of 1965. (78 Stat. 897; PL 88-578).
- i. 16 USC 4601-12 et seq., Federal Water Project Recreation Act, as amended (PL 89-72).
- j. 18 USC 111, Assaulting, Resisting, or Impeding Certain Officers or Employees.
- k. 18 USC 1114, Protection of Officers and Employees of the United States.
- l. 28 USC 1346, Federal Torts Claims Act (FTCA).
- m. 33 USC 2328, Water Resources Development Act of 1992, (106 Stat. 4838, Sec. 203; PL 102-580).
- n. 42 USC 470 et seq., National Historic Preservation Act, as amended.
- o. 42 USC 1962 et seq., Water Resources Planning Act, as amended.
- p. 42 USC 4321, The National Environmental Policy Act (NEPA) of 1969 (PL 91-190).
- q. PL 78-534, Flood Control Act of 1944 (58 Stat. 887).
- r. PL 85-624, Fish and Wildlife Coordination Act (72 Stat. 563).
- s. PL 86-717, Forest Conservation (74 Stat. 817).
- t. PL 89-72, Federal Water Project Recreation Act of 1965.
- u. PL 90-578, (82 Stat. 1107), Federal Magistrates Act.
- v. PL 91-611, (84 Stat. 1818), Flood Control Act of 1970.

EP 1130-2-550  
15 Nov 96

- w. PL 91-611, Flood Control Act of 1970, Section 234 (84 Stat. 1833).
- x. PL 92-500, Federal Water Pollution Control Act, as amended (86 Stat. 816).
- y. PL 92-516, Federal Insecticide, Fungicide and Rodenticide Act, as amended. (92 Stat. 819).
- z. PL 93-112, Section 504, 29 USC 706, Rehabilitation Act of 1973.
- aa. PL 93-303, Land and Water Conservation Fund Act (88, Stat. 192).
- ab. PL 93-415, Juvenile Justice and Delinquency Prevention Act of 1974.
- ac. PL 93-523, Operating and Testing Potable Water Systems in Compliance with the "Safe Drinking Water Act".
- ad. PL 94-587, Section 120 (90 Stat. 2917), Water Resources Development Act of 1976, as amended by PL 96-536, (94 Stat. 3166).
- ae. PL 95-224, (92 Stat. 3), Federal Grant and Cooperative Agreement Act of 1977.
- af. PL 98-63, Supplemental Appropriations Act of 1983.
- ag. PL 103-66, Omnibus Budget Reconciliation Act of 1993.
- ah. EO 11644, "Use of Off-Road Vehicles on the Public Lands," February 8, 1972 (37 F.R. 2877, February 9, 1973. (Appendix A)).
- ai. EO 12512, Federal Real Property Management.
- aj. 5 CFR, Part 1320, Controlling Paperwork Burdens on the Public.
- ak. 36 CFR, Part 71, Recreation Fees.
- al. 36 CFR, Chapter III, Part 327, Rules and Regulations Governing Public Use of Water Resource Development Projects Administered by the Chief of Engineers (38 FR 75520, 23 March 1973).
- am. 45 CFR, Chapter XX, Part 2010, Constitution Bicentennial Education Grant Program.
- an. AR 190-29, Misdemeanors and Uniform Violation Notices Referred to US Magistrate or District Courts and USACE Suppl. 1.
- ao. USACE Suppl. 1 to AR 385-40, Mishap Reporting and Records.
- ap. USACE Suppl. 1 to AR 640-3, Personnel Identification Cards, Tags and Badges.
- aq. ER 25-1-90, Visual Information Management.
- ar. ER 37-2-10, Accounting and Reporting Civil Works Activities.

EP 1130-2-550  
15 Nov 96

- as. ER 56-2-1, Administrative Vehicles Management - Civil Works.
- at. ER 70-1-5, Corps of Engineers Research and Development Program.
- au. ER 190-1-50, Law Enforcement Policy, U.S. Army Corps of Engineers.
- av. ER 200-2-2, Policy and Procedures for Implementing NEPA.
- aw. ER 310-1-6, Graphic Standards Manual.
- ax. ER 360-1-1, Public Affairs.
- ay. ER 405-1-12, Real Estate Handbook
- az. ER 870-1-1, Field Operating Activities Historical Programs.
- ba. ER 1105-2-100, Guidance for Conducting Civil Works Planning Studies.
- bb. ER 1110-2-400, Design of Recreation Sites, Areas and Facilities.
- bc. ER 1110-2-1150, Engineering After Feasibility Studies
- bd. ER 1130-2-500, Partners in Support (Work Management Policies).
- be. ER 1130-2-520, Navigation and Dredging Operations and Maintenance Policies.
- bf. ER 1130-2-540, Environmental Stewardship Operations and Maintenance Policies.
- bg. ER 1130-2-550, Recreation Operations and Maintenance Policies.
- bh. ER 1165-2-30, Acceptance and Return of Required, Contributed or Advanced Funds for Construction or Operation.
- bi. ER 1165-2-400, Recreation Planning, Development, and Management Policies.
- bj. EP 310-1-6, Graphics Standards Manual.
- bk. EP 310-1-6a, Corps of Engineers Sign Standards Manual, Vol 1.
- bl. EP 310-1-6b, Corps of Engineers Sign Standards Manual, Vol 2.
- bm. EP 690-1-11, Command-wide Recruitment and Outreach Materials.
- bn. EP 690-2-2, Career Development Guide for Civil Works Natural Resources Management Team Members.
- bo. EM 385-1-1, Safety and Health Requirements Manual.
- bp. EM 1110-1-400, Recreation Planning and Design Criteria.

EP 1130-2-550  
15 Nov 96

- bq. EM 1110-2-38, Environmental Quality in Design of Civil Projects.
- br. EM 1110-2-400, Recreation Planning and Design Criteria.
- bs. EP 1130-2-434, Volume 1-5, JS, DI, FS, Interpretive Services and Outreach Program.
- bt. Waterways Experiment Station Instruction Report R-81-1, " A Guide to Cultural and Environmental Interpretation in the U.S. Army Corps of Engineers" and "Supplements," National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161.
- bu. Interagency Agreement of Operations and Guidelines Between Federal Prison Industries, U.S. Bureau of Prisons and U.S. Army Corps of Engineers, October 27, 1992.
- bv. Interpreting Our Heritage, Tilden, Freeman; the University of North Carolina Press, 1967.
- bw. Interpreter's Handbook Series, Contact: Dr. Michael Gross, College of Natural Resources, University of Wisconsin - Stevens Point, Stevens Point, WI, 54481.
- bx. The Great Outdoors Funbook, U.S. Army Corps of Engineers, 1993.
- by. Environmental Review Guide for Operations (ERGO) Compliance Assessment Manual.

EP 1130-2-550  
15 Nov 96

## APPENDIX B

## INTERAGENCY COORDINATION REQUIREMENTS

The following table shows some of the common legal requirements for interagency coordination which may be applicable in the preparation, approval, and implementation of a MP. It should be noted that this is not a complete list, as there are numerous other requirements which might apply in particular situations or to particular projects. Also, this list defines only minimum requirements and should not be construed to limit coordination.

Table B-1

| <u>SITUATION WHICH TRIGGERS THE NEED FOR COORDINATION</u>  | <u>AGENCY OR AGENCIES INVOLVED</u>                                 | <u>REFERENCES/ DISCUSSION</u>  |
|--|--|--|
| 1. Environmental Impact Statement or supplement is prepared.   | Federal, state and local government agencies.                      | National Environmental Policy Act (para 6); ER 200-2-2.  |
| 2. Significant changes are proposed to recreation.   | National Park Service  | Under the Federal Water Project Recreation Act (Appendix A, para. 3), the views of Interior are incorporated into project planning. If there is a subsequent change it should be reCOORDINATED.                |
| 3. Significant changes are proposed to fish and wildlife.  | Fish and Wildlife Service and State Fish Wildlife                  | Same as above under the Federal Water Project Recreation Act. Also, under the Fish and Wildlife Coordination Act (Appendix A, para. 5), coordination with FWS and the state agency is required. ER 1105-2-100. |
| 4. An endangered, Threatened, or proposed species or designated critical habitat may be affected by a proposed action. | Fish and Wildlife Service and/or National Marine Fisheries Service | Endangered Species Act (Appendix A, para. 6); ER 1105-2-100.   |
| 5. An action is proposed which will result in flooding of archeological data.  | National Park Service  | Archeological and Historic Preservation Act (Appendix A, para. 8); ER 1105-2-100.  |
| 6. An activity may cause loss or destruction of important scientific, historical, or archeological data.               | National Park Service  | Same as above.   |

EP 1130-2-550  
 15 Nov 96

| SITUATION WHICH TRIGGERS THE NEED FOR COORDINATION  | AGENCY OR AGENCIES INVOLVED   | REFERENCES/<br>DISCUSSION  |
|---|---|--|
| 7. An action that may effect any district, site, building, structure, or object that is on or is eligible for the National Register of Historic Places. | Advisory Council on Historic Preservation and State Historic Preservation Officer | National Historic Preservation Act (Appendix A, para. 8); ER 1105-2-100. |

EP 1130-2-550  
15 Nov 96

APPENDIX C  
VISITOR CENTER CHECKLIST

(SCALE is based on 1 = poor to 5 = very good)

C-1. Visitor Reception

- a. Is the approach to the facilities inviting?.....1 2 3 4 5
  - (1) Are sign directions clear and concise?.....1 2 3 4 5
  - (2) Are there negatively worded signs?.....Y N
  - (3) Is parking easy and convenient?.....1 2 3 4 5
  - (4) Is parking provided for persons with disabilities?.....Y N
  - (5) Are there barriers to handicapped?.....Y N
  
- b. Does the visitor center establish a friendly and welcome mood?.....1 2 3 4 5
  - (1) Are the surroundings warm and friendly?.....1 2 3 4 5
  - (2) Is there a personal welcome message?.....1 2 3 4 5
  - (3) Is there an orientation map of the building?.....Y N
  - (4) Is there an orientation map of the project?.....Y N
  - (5) Do the exhibits invite participation or involvement?.....1 2 3 4 5
  - (6) Are any exhibits directed toward children?.....Y N
  - (7) Can all exhibits be viewed by children?.....Y N
  - (8) Are exhibits of the appropriate size and proportion to the space available?.....Y N
  - (9) Are the messages on exhibits of appropriate size for easy reading, including the visually impaired?.....Y N
  - (10) Are the exhibits done in a color scheme that is warm and inviting?.....Y N
  - (11) Are there interior architectural barriers for persons with disabilities?.....Y N
  - (12) Is there a good traffic flow through the exhibit and display area?.....Y N
  
- c. Is there a central theme to interpretive material?.....1 2 3 4 5
  - (1) Does any one subject dominate the others?.....Y N



EP 1130-2-550  
15 Nov 96

C-2. Information Brochures and Folders

- a. Do they include information we wish to convey to the public as well as information the public would like to receive?.....1 2 3 4 5
- b. Are brochures available at visitor facilities?.....Y N
- c. Are they displayed attractively?.....1 2 3 4 5
- d. Is it obvious that these are free to the public?.....Y N

C-3. Operations

- a. Is the staffing (Corps or contractor) adequate?.....1 2 3 4 5
  - (1) Are self-guided tours used?.....Y N
  - (2) Do they stand on their own?.....Y N
  - (3) Can the visitor use the center without additional information from the staff?.....Y N
  - (4) Is the staff readily accessible to the public?.....Y N
  - (5) Is there a reception area near the entrance?.....Y N
  - (6) Is the reception desk manned?.....Y N
  - (7) Is the staff knowledgeable about the displays and the Corps?.....Y N
  - (8) How many people work directly in the center?.....\_\_\_\_\_
  - (9) Is reduced staffing an option?.....Y N
- b. Does the visitor center receive adequate use by the public?.....1 2 3 4 5
  - (1) What is the annual visitation?.....\_\_\_\_\_
  - (2) What is the peak month for visitation?.....\_\_\_\_\_
  - (3) Is the facility visitation appropriate for its location and market area? If no, explain in Section 6, Comments.....Y N
  - (4) Is the facility visitation appropriate for its size? If no, explain in Section 6, Comments.....Y N
  - (5) Is the visitation primarily local, repeat or transient?.....\_\_\_\_\_
  - (6) Is the center made available to school and community groups?.....Y N
  - (7) Does the staff contact schools and groups and invite them to the center?.....Y N
  - (8) Do these groups regularly visit?.....Y N



EP 1130-2-550  
15 Nov 96

- i. If there is a main audiovisual presentation, what percentage of the time is it operational?.....\_\_\_\_\_%
- j. Is there an adequate supply of all types of backup equipment, e.g., projectors, tape players, etc.?.....1 2 3 4 5
- k. Are funds adequate for operation of the center?.....Y N
- l. Are there interpretive facilities outside of the visitor center?.....Y N
  - (1) Are they integrated into the total program?.....Y N
  - (2) Are they effective?.....Y N
  - (3) Do they make maximum use of the natural assets of the site?.....Y N
    - (a) nature trail.....1 2 3 4 5
    - (b) overlook.....1 2 3 4 5
    - (c) physical feature.....1 2 3 4 5
    - (d) nature features.....1 2 3 4 5
    - (e) historical archeological.....1 2 3 4 5
- Overall Rating for the Visitor Center.....1 2 3 4 5

C-4. Comments

\_\_\_\_\_  
Evaluator Title Phone



EP 1130-2-550  
15 Nov 96

APPENDIX D

FOR ILLUSTRATION PURPOSES ONLY  
(Local reproduction authorized - blank  
masters available from local FMO)

CERTIFICATE OF AUTHORITY  
TO ISSUE CITATIONS

BADGE NUMBER: \_\_\_\_\_

\_\_\_\_\_ DATE

By authority of Section 234, Flood Control Act of 1970 (Title II, PL 91-611), I hereby certify that \_\_\_\_\_ is authorized to issue citations for violations of Title 36, CFR Chapter III, for the purpose of executing the provisions of said law.

This authority is derived from the "Designation of Persons Authorized to Issue Citations" made by the Chief of Engineers pursuant to said Section 234, and from my certification as to this employee in accordance with said "Designation":

- (a) The employee's principal duties relate to recreation or natural resources management (which may include, but are not limited to, duties as a ranger or resources manager).
- (b) The employee needs citation authority in order to perform his/her duties in the most efficient manner.
- (c) The employee has the aptitude, temperament, personality, experience, and ability to exercise citation authority properly.
- (d) The employee has been adequately trained in citation procedures.

\*Expiration date: \_\_\_\_\_

\_\_\_\_\_  
(Signature of District Commander)

\*Note. The date for permanent employees may be indefinite; for temporary employees the date will not exceed the term of appointment.

ENG Form 5036-R, Nov 92.



EP 1130-2-550  
15 Nov 96

## APPENDIX E

### VISITOR ASSISTANCE TRAINING FOR TEMPORARY EMPLOYEES

E-1. Policy. In order to provide a consistent message through all phases of the visitor assistance training, divisions are authorized to conduct annual visitor assistance/citation training courses for temporary, seasonal and new natural resources employees who have been selected to receive citation authority. MSC courses will incorporate the core curriculum outlined below and will be submitted for review to HQUSACE (CECW-ON), through the Visitor Assistance Program (VAP) lead instructor. (See also paragraph 6-4 of this chapter.)

E-2. Authority. Upon completion of the approved division training, permanent and seasonal employees may be granted citation authority for up to two years, at which time they must take the HQUSACE PROSPECT course. Temporary employees cannot be granted citation authority in their first summer of work. Upon completion of one season's work and the approved division course, returning temporary employees may be granted citation authority. Temporary employees must be certified to meet the same criteria for demeanor, aptitude, personality and ability to issue citations as do permanent and seasonal employees.

#### E-3. Core Curriculum.

- a. Subjects required to be covered in the 24-hour core curriculum of the course include:
  - (1) USACE Visitor Assistance policy statement, to be given by a USACE VAP course instructor (travel and per diem to be paid by the host district/division)
  - (2) Ranger authority, liability, image, and uniforms
  - (3) Chapters 2, 6, 7, and 8 of ER/EP 1130-2-550
  - (4) Title 18 and Title 36 (CFR)
  - (5) Levels of Authorized enforcement
  - (6) Conflict management
  - (7) Personal protection/Situation evaluation
  - (8) Communications, verbal judo, and other non-aggressive techniques
  - (9) Fact finding
  - (10) Verbal or written warnings and citations
  - (11) Magistrate system, US Attorney, court appearances, Central Violations Bureau and forfeiture schedule
  - (12) Other violations to include state and local laws, ARPA, ERGO

EP 1130-2-550  
15 Nov 96

(13) Law Enforcement Cooperative Agreements

b. Subjects to be covered with local emphasis at the instructor's predetermined length:

- (1) Water safety
- (2) Emergency situations
- (3) Patrol and enforcement techniques
- (4) Report writing
- (5) Visitors under the influence

E-4. Manual. A manual outlining the course will be provided and should be reviewed every five years. Videos to assist with specific subject areas will accompany the course manual.

E-5. Videos.

a. The previously distributed 1985 videos from HQUSACE Visitor Assistance Course will be made available to District/MSI instructors to highlight pertinent teaching points and enhance coverage of individual subjects.

b. The Chief of Engineers video on guidelines for Visitor Assistance will be a part of the training.

c. Districts/MSIs may develop videos to instruct new employees on unique features of individual projects. Scripts of proposed videos will be approved by the VAP lead instructor to ensure uniformity of visitor assistance courses nationwide.

E-6. Approval. Course outlines and/or lesson plans will be submitted to HQUSACE (CECW-ON), who will work through the VAP lead instructor for approval. Courses that do not change from year to year need only be submitted once. Course dates should be submitted annually by 31 January, to allow PROSPECT instructors to schedule attendance at district or division courses.

E-7. Target Audience.

a. Temporary employees.

b. Permanent and seasonal employees waiting to attend HQUSACE training who will have authority to issue written warnings or citations.

E-8. Refresher Courses. Temporary employees must complete a refresher course every five years. Permanent and seasonal employees will complete the HQUSACE Visitor Assistance Course within two years of date of employment.

EP 1130-2-550  
15 Nov 96

APPENDIX F

FOR ILLUSTRATION PURPOSES ONLY  
(Local reproduction authorized - blank  
masters available from local FMO)

|  |                   |
|--|-------------------|
| <p>CANCELLATION OF<br/>CERTIFICATE OF AUTHORITY<br/>TO ISSUE CITATIONS</p> |                   |
|  | <p>_____ DATE</p> |
| <p>The "Certificate of Authority to Issue Citations" issued to</p>         |                   |
| <p>_____ on _____,</p>   |                   |
| <p>(Name of Employee)</p>  |                   |
| <p>number: _____, is hereby canceled.</p>                                  |                   |
| <p>_____</p>   |                   |
| <p>(Signature and Title of District Commander)</p>                         |                   |
| <p>ENG Form 5036-1-R, Nov 92</p>   |                   |



EP 1130-2-550  
15 Nov 96

APPENDIX G  
ALTERNATIVE MANAGEMENT TECHNIQUES

G-1. Physical Control Techniques.

a. Closing of areas. This includes the closing of areas at night, when capacities have been reached, during off season periods, campgrounds at appropriate hours, or areas where vandalism and rowdiness are frequently encountered.

b. Fencing or other barriers.

c. Managing appropriate use of area facilities, e.g., vehicles should be restricted to designated roads and parking facilities and camping to designated sites.

d. Use of entrance control stations.

e. Contract gate/park attendants. Volunteer campground hosts.

f. Security lights.

g. Use of mechanical and electrical surveillance systems.

h. Appropriate signing.

i. Prohibition of alcohol consumption, with appropriate local and district support.

j. Physical Security Surveys and Crime Prevention Surveys.

G-2. Planning and Design Techniques.

a. Single entrances to areas.

b. Vandal resistant facilities.

c. Road design to control excessive speeds. When performing normal maintenance or during times of major renovation work, roads should be designed with an emphasis on safety.

d. Separation of user types, i.e., camping versus day use.

e. Handicapped facilities.

f. Lighting, or opening, of areas to facilitate visibility.

g. Providing overflow areas.

h. Establishing areas for special uses, such as off-road vehicle paths and trails.

i. Consolidate recreation areas.

EP 1130-2-550  
15 Nov 96

- j. Location of operation and maintenance facilities.
- k. Informational bulletin boards at area entrances.

G-3. Surveillance Techniques.

- a. Computer data system.
- b. Improved reporting systems on violations to enhance field investigations.
- c. Use of authorized user surveys.
- d. Inter and intra-agency data exchange and coordination on common problems and activities.
- e. Expanded alternative surveillance techniques. The routine land surveillance activities should be supplemented with air and water inspections, as required.
- f. Inter-governmental agency coordination on surveillance activities(s).

G-4. Public Involvement.

- a. Cooperative Law Enforcement Agreements.
- b. Contingency plans.
- c. Citizen committees.
- d. Expanded Public Information programs.
- e. Safety councils.
- f. Shoreline/lake cleanup campaigns.

G-5. Project Plans.

- a. Ranger manuals.
- b. Operational Management Plans.
- c. Security plans.
- d. Scheduling personnel to meet project needs.
- e. Immediate vandalism repair and litter removal.

G-6. Employee Training and Professionalism.

G-7. Standardize Vehicles.

EP 1130-2-550  
15 Nov 96

G-8. Service Contracts.

G-9. Communications.



EP 1130-2-550  
15 Nov 96

APPENDIX H

FORMAT FOR AGREEMENT FOR LAW ENFORCEMENT SERVICES

COOPERATIVE AGREEMENT BETWEEN THE UNITED STATES OF AMERICA AND  
(STATE OR POLITICAL SUBDIVISION) FOR THE PROVISION OF LAW  
ENFORCEMENT SERVICES

This agreement, entered into this \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, by the U.S. Army Corps of Engineers (district) (hereinafter referred to as the Corps) and (state or Political subdivision) (hereinafter referred to as the Cooperator). Witnesseth that:

WHEREAS, the construction of the \_\_\_\_\_ (hereinafter called the "Project") was authorized by the \_\_\_\_\_ Act, approved \_\_\_\_\_ (Public Law \_\_\_\_\_), and the provision of recreation, resources in (state of political subdivision) was authorized by (the same) \*((the provision of (the Federal Water Project Recreation Act of 1965) \*Section 4 of the 1944 Flood Control Act, as amended (16 USC 460d)); and

WHEREAS, it is the responsibility of the Corps, in administering the Project lands, to provide the public with safe and healthful recreational opportunities; and

WHEREAS, the Cooperator has the authority to enforce the state and local laws for (law enforcement jurisdiction) on such lands, and WHEREAS, Section 120 of the Water Resources Development Act of 1976 (Public Law 94-587) authorizes the Corps to contract with states and their political subdivisions for the purpose of obtaining increased law enforcement services on Project lands to meet needs during peak visitation periods; and

WHEREAS, it is in the best interests of the Corps to obtain the assistance of the Cooperator in the enforcement of state and local laws on Project lands.

NOW, THEREFORE, the parties hereto mutually agree as follows:

Article 1. Plan of Operation.

(a) The Corps and the Cooperator have agreed to a Plan of Operation which describes the scope and extent of law enforcement services to be provided by the Cooperator in accordance with this agreement. Such Plan of Operation, as concurred in by the Cooperator, is attached hereto as Appendix A and made a part hereof.

(b) It is recognized and understood that the Corps and the Cooperator may, at the request of either, renegotiate the Plan of Operation. The renegotiated Plan of Operation shall, upon written acceptance thereof by both parties, supersede Appendix A.

Article 2. Obligations of the Cooperator.

(a) The Cooperator agrees to furnish law enforcement services as follows:

---

Select applicable authority for the recreation development.

EP 1130-2-550  
15 Nov 96

(1) Normal, emergency, or unanticipated enforcement of civil and criminal laws of the state and local jurisdiction on Project lands and waters without claim for reimbursement under this agreement.

(2) The enforcement of the civil and criminal laws of the state and (local jurisdiction) on Project lands in accordance with the schedules and duties describe in the Plan of Operation, with payment by the Corps in accordance with Article 3 of this agreement.

(b) The Cooperator agrees to provide personnel, equipment, and supplies which are required in order to provide the law enforcement services requested by the Corps in accordance with subparagraph (a) above.

(c) The Cooperator agrees to prepare a Daily Enforcement Log of a format provided or approved by the Corps and to submit this log to the Corps at least once a month throughout the effective period of the current Plan of Operation.

(d) The Cooperator agrees to assign only those personnel who are qualified and trained pursuant to the requirements of state and local laws and regulations to undertake the law enforcement services to be provided under Article 2(a)(2). Where state and local standards for the qualifications of law enforcement personnel do not exist, the Cooperator will advise the Corps of the experience, qualifications and training of those personnel expected to be assigned law enforcement duties under this agreement and assign such duties to them only with the approval of the Corps.

Article 3. Obligation of the Government. Subject to the availability of funds, the Corps Agrees to pay the Cooperator for the total cost of the law enforcement services to be provided in accordance with the obligations agreed to be undertaken by the Cooperator in Article 2(a)(2), including the costs of operation and maintenance of such equipment as is required for the provision of such services identified in the Plan of Operation under Article I. At the request of the Cooperator, partial payments may be made as the law enforcement services are performed based on billings as identified in the Plan of Operation under Article I and approved by the Corps.

Article 4. Period of Services. The period of this agreement shall be from the date of execution until terminated by mutual agreement, or on written notice from either party to the other, as set forth in Articles 6 and 10.

Article 5. Disputes. (Insert the clause in DAR 7-103.12.)

Article 6. Default. In the event that either party to this agreement fails to meet any of its obligations hereunder, the other party may immediately terminate the whole or any part of this agreement. Such termination shall be effected by written notice of either party to the other.

Article 7. Exclusion of Federal Employee Benefits. It is understood and agreed that the services to be provided by the Cooperator and its employees shall not be considered to fall within the scope of Federal employment, that the Cooperator and its employees shall not be considered as agents or employees of the Federal Government, and that none of the benefits of Federal employment will be conferred under the terms of this agreement.

EP 1130-2-550  
15 Nov 96

Article 8. Release of Claims. The Cooperator agrees to hold and save the Corps, its officers, agents or employees, harmless from liability of any nature or kind, for or on account of any claims for damages that may arise during the performance of the law enforcement services by the Cooperator under this agreement.

Article 9. Transfer or Assignment. The Cooperator shall not transfer or assign this agreement, nor any rights acquired thereunder, nor grant any interest, privilege, or license whatsoever in connection with this agreement without the approval of the Corps.

Article 10. Termination for Convenience. The Corps or Cooperator may, on 30 days written notice, terminate this agreement, in whole or in part, when it is in the best interests of either party. If this agreement is so terminated, the Corps shall be liable only for payment in accordance with the payment provisions of this agreement for services rendered prior to the effective date of termination (DAR 7-1902.16).

Article 11. Equal Opportunity. (Insert the clause in DAR 7-103.18(a).)

Article 12. Gratuities. (Insert the clause in DAR 7-104.16.)

Article 13. Examination of Records by Comptroller General. The Cooperator agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under this agreement or such less time specified in Appendix M of the Defense Acquisition Regulation have access to and the right to examine any directly pertinent books, documents, papers, and records of the Cooperator involving transactions related to this agreement.

Article 14. Audit by Department of Defense. Upon request, the Cooperator shall provide, and the Corps shall have the right to examine, books, records, documents, and other evidence of accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this agreement.

Article 15. Any changes in the provisions of this agreement which are necessary and proper will be made by formal amendment signed by both parties.

IN WITNESS HEREOF, the parties hereto have executed this agreement, as of the day and year first written above.

U.S. ARMY CORPS OF ENGINEERS

STATE OR POLITICAL  
SUBDIVISION

BY \_\_\_\_\_  
Colonel, Corps of Engineers  
District Engineer

BY \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

EP 1130-2-550  
15 Nov 96

(Necessary approvals and countersignatures required by state or political subdivisions with respect to execution on behalf of the state or political subdivision must be ascertained by the Cooperator and his counsel and added to the signature block.)

EP 1130-2-550  
15 Nov 96

APPENDIX I

REPORTING REQUIREMENTS FOR LAW ENFORCEMENT  
COOPERATIVE AGREEMENTS THROUGH THE NRMS

I-1. All projects with reporting responsibilities will report the following information through the Natural Resource Management System (NRMS) (RCS CECW-O-39(R2)). Specific reporting details are found in the NRMS users manual.

I-2. Information requirements for annual reports on cooperative agreements for law enforcement services are as follow:

a. Total Number of Cooperative Agreements - Report the total number of cooperative agreements for increased law enforcement services in effect during the fiscal year. In cases where one cooperative agreement is applicable to more than one reporting project, each project will count the agreement in computing the project total.

b. Total Funds Paid to Cooperating Agencies - Report the total amount of funds paid to agencies cooperating for increased law enforcement services during the fiscal year. If one cooperative agreement is applicable to more than one project, each project will report the funds expended in the project's 16.01 account.

c. Total Administrative Costs - Report the total costs associated with the administration of the cooperative agreements for increased law enforcement services. If one cooperative agreement(s) is applicable to more than one project, each project will report the amount of their funds expended in administration of the agreement.

d. Total Man-Hours of Increased Law Enforcement Service - Report the total number of man-hours of increased law enforcement services realized as a result of the fiscal year cooperative agreement(s) for law enforcement service. If one cooperative agreement is applicable to more than one project, each project will report the man-hours of increased service provided to that project.

e. Total Number of Law Enforcement Actions - Report the total number of written warnings, citations, and arrests issued on the project by cooperating agencies while conducting the services specified in the agreement(s) for increased law enforcement. (Note: Two actions against the same person should be reported as two separate actions.)



EP 1130-2-550  
15 Nov 96

APPENDIX J

NATURAL RESOURCES MANAGEMENT UNIFORM ITEMS  
CLASS A-DRESS UNIFORM

This appendix describes each approved uniform item and how it is worn. Descriptions are not intended to be used as a specification list by uniform suppliers. All uniform items described in this appendix must be procured through the uniform supplier, except those items not furnished by a uniform allowance. **SUBSTITUTIONS WILL NOT BE PERMITTED.**

J-1. Badges, Nameplates and Insignia.

a. Badge. The badge will not be worn on the Dress Uniform. The District Commander may authorize the badge to be carried on the person in the holder provided for that purpose.

b. Nameplate. Metal, gold-brushed finish. Nameplate will be ½" X 2-3/8" containing the first name (or initial), last name and job title of the individual in black letters in upper and lower case in Helvetica Medium type style. The nameplate will have radius corners. The nameplate will be worn on the blazer, centered on the breast pocket with the top of the name plate with the top of the pocket.

c. Blazer Breast Pocket Patch, Corps of Engineers. The Corps blazer breast pocket patch will be worn on the Class A uniform. The uniform supplier will provide and attach the pocket patch.

J-2. Class A - Dress Uniform.

a. Blazer. Hunter green, Dacron/worsted blend.

b. Shirt. Light gray, Dacron/cotton, long or short sleeve.

c. Necktie and Retainer. Green with gray castle insignia, four-in-hand. A pre-tied, clip-on type is permissible.

(1) The tie will be retained by a tie tack or bar with the Corps emblem attached, and the retainer positioned near the fourth button of the shirt.

(2) The tie will be worn in all situations.

d. Women's Tie. Green with gray castle insignia.

e. Trousers. Gray, Dacron/wool, summer and winter.

f. Skirt. Gray, Dacron polyester/wool, summer and winter, lined, length between 2" above and 2" below the center of the knee.

g. Footwear. Black, polished, plain toe shoe or boot. Women may wear a smooth leather, plain toed pump.

EP 1130-2-550  
15 Nov 96

h. Socks. Black, plain or ribbed, with adequate support to prevent bunching; length optional.

i. Hosiery. Neutral color. unpatterned.

j. Belt. Black, plain leather, 1-1/4" wide, with solid brass buckle. Substitute buckles are not authorized.

k. Sweater. Optional. Green, acrylic, long-sleeve, cardigan style. The sweater is not approved as an outer wear garment outside the office.

l. Inclement Weather Gear (Optional).

(1) Overcoat. Gray, trench style with zip-out lining, button closure and no shoulder patch.

(2) Overshoes. Black or clear, slip-on, zipper or buckle closed.

(3) Scarf. Black.

(4) Gloves. Black, lined or unlined.

EP 1130-2-550  
15 Nov 96

J-3. Summary of Items. Table 8-A-1 lists required and optional Class A Dress Uniform Items outlined in this regulation.

TABLE J-1 ITEMS FOR CLASS A UNIFORM

| ITEM                                     | REQUIRED? | SPECIAL RESTRICTIONS | CONTRACT ITEM? |
|--|-----------|----------------------|----------------|
| Blazer, Green, Dacron/Wool               | YES       | NO                   | YES            |
| Shirt, Gray, Dacron/Wool                 | YES       | NO                   | YES            |
| Necktie, Tie Tack or Tie Bar             | YES       | Worn at all times    | YES            |
| Trousers/Skirt, Gray, Dacron/Wool        | YES       | NO                   | YES            |
| Shoes or Boots, Black Polished Plain Toe | YES       | NO                   | NO             |
| Socks, Hose                              | YES       | NO                   | NO             |
| Belt, Black                              | YES       | NO                   | YES            |
| Sweater, Green Acrylic                   | OPT.      | Office Use Only      | YES            |
| Overcoat, Gray                           | OPT.      | NO                   | YES            |
| Inclement Weather Items                  | OPT.      | NO                   | NO             |

KEY: OPT. - Optional. May be worn if warranted by conditions (i.e., cold weather). However, if such a garment is worn, it must be the authorized item.

NOTE: If an item is not listed, it is NOT authorized to be worn with this class uniform.



EP 1130-2-550  
15 Nov 96

## APPENDIX K

NATURAL RESOURCES MANAGEMENT UNIFORM ITEMS  
CLASS B-DUTY/MATERNITY UNIFORM AND CLASS C-WORK UNIFORM

This appendix describes each approved uniform item and how it is worn. Descriptions are not intended to be used as a specification list by uniform suppliers. All uniform items described in this appendix must be procured through the uniform supplier, except those items not furnished by a uniform allowance. **SUBSTITUTIONS WILL NOT BE PERMITTED.**

K-1. Badges, Nameplates and Insignia.

a. Badge. The official Corps of Engineers badge is authorized only for those persons having citation authority as prescribed in Chapter 6 of ER 1130-2-550. The badge will be worn above the left pocket of the shirt or jacket.

b. Nameplates. Metal, gold brushed finish. Nameplate will be ½" X 2- 3/8", containing the first name (or initial), last name and job title of the individual in black letters in upper and lower case in Helvetica Medium type style. The nameplate will have radius corners. It will be worn on all Class B and C uniforms, centered above the right breast pocket with the bottom of the nameplate flush with the top of the pocket seam.

c. Shoulder Patch, Corps of Engineers. The Corps cloth shoulder patch will be worn on the left sleeve of the duty uniform shirts, jackets, coats, sweaters and coveralls. The patch will be securely sewn in the center of the sleeve with the top edge 1" below the shoulder seam so that the base of the patch is parallel with the ground when the arm is relaxed at the side. Patches will be affixed to uniform by the contractor.

d. Emblem, Corps of Engineers Gold Metal Castle. The Corps gold-colored metal castle emblem will be centered on the front of all headgear so that the base of the emblem is ½" above the top of the hatband. The emblem will be centered on the front flap of the fur trooper hat. An embroidered patch will be used on the baseball cap in place of the metal castle emblem.

K-2. Headgear.

a. Campaign-style hat. Tan, campaign-style, with 3-1/8" double brim. Black leather, embossed, hatband with braid worn on left side. The Corps emblem will be centered on the front of the hat ½" above the hatband. The black leather chin strap is optional. This hat will be purchased in a felt model for winter wear. The appropriate campaign style hat is the normal day-to-day uniform head wear and is required when working in any of the following conditions.

- (1) Personnel with citation authority engaged in any visitor assistance duties.
- (2) Personnel involved in presentation of interpretive programs to members of the public.
- (3) Personnel involved in court appearances resultant from their professional duties.
- (4) Personnel performing duties of a formal or ceremonial nature involving the U.S. Army Corps of Engineers.

EP 1130-2-550  
15 Nov 96

The hat will be removed when inside a vehicle, building, or during the playing of our national anthem.

b. Baseball-style Cap. Forest green, baseball-style. Cap is authorized for wear with the Class C work uniform. The cap may be worn with the Class B duty uniform only while on boat patrol. It is not to be used as the normal day-to-day headgear.

c. Fur Trooper Cap. Forest green with mouton trimmed ear flaps and Corps emblem will be centered on the front flap. It is authorized for wear with Classes B and C uniforms.

d. Knit Cap. Forest green, ski-style. Authorized for wear during work situations only. This cap will not be worn when meeting the public is a primary function (i.e., interpretive programs, visitor assistance duties, etc.).

e. Hat Cover. Translucent plastic. Weather protection for use with campaign-style hats.

#### K-3. Coats and Jackets.

a. Duty Jacket. Forest green, Dacron/wool, unlaminated "IKE" style. Jacket will be worn with the zipper closed and with a necktie. The duty jacket will be worn during any of the conditions listed in Appendix K, paragraph 2a(3) and (4). The duty jacket will not be worn with the washable trouser.

b. Windbreaker. Forest green, w/lining and badge tab. The windbreaker may be worn during normal working conditions except those listed in Appendix K, paragraph 2a(3) and (4).

c. Parka. Heavy-weight forest green for weatherproof protection over Classes B and C uniforms.

d. Overshell and Pants. Light-weight, forest green, for weatherproof protection over Classes B and C uniforms.

e. Vest. Forest green. To be used for layering option with the parka, overshell or windbreaker. It is not authorized for use as an outer garment.

f. Sweater. Grey, v-neck pullover. The sweater will be worn with badge, nameplate and shoulder patch. The badge and nameplate are required only when the sweater is worn as an outer garment. The sweater may be worn during working conditions except those listed in Appendix K paragraph 2a(3) and (4).

g. Raincoat, reversible. Waterproof protection for wear over Classes B and C uniforms.

#### K-4. Duty Shirts.

a. Long sleeve. Gray with badge holder, pleated pockets, military creases, and epaulets. The necktie will be worn with this shirt in Class B duty situations.

b. Short sleeve. Gray, with badge holder, pleated pockets, military creases, and epaulets. The necktie will be worn with the duty jacket, otherwise the necktie is optional.

EP 1130-2-550  
15 Nov 96

K-5. Necktie and Retainer.

a. Necktie. Black, 3" width. Pre-tied, clip-on type is permissible. The necktie will be retained, by a tie tack or bar with the Corps emblem attached and positioned near the fourth button from the top of the duty shirt.

b. Crosstie. Black, secured by snap or Velcro.

c. Tie tack and tie bar. Gold, with the Corps emblem attached. Tie tack or bar will be positioned near the fourth button from the top of the duty shirt.

K-6. Trouser/Skirt.

a. Summer Trouser/Skirt. Forest green, 10 oz Dacron/wool. Light weight Class B duty trouser/skirt.

b. Winter Trouser/Skirt. Forest green, 16 oz Dacron/wool. Heavy weight Class B duty trouser/skirt.

c. Washable Trouser. Forest green, permanent press. These trousers will not be worn with the duty jacket nor when performing the duties listed in Appendix K, paragraph 2a(3) and (4).

d. Jeans. Forest green. Class C work uniform only.

K-7. Footwear.

a. Shoes. Black, polished, plain toe shoe or boot. Safety shoes or boots will be provided by the district, depending upon assigned duties.

b. Socks. Black, plain or ribbed, with adequate support to prevent slipping or bunching, length is optional.

c. Hosiery. Neutral color, unpatterned.

d. Overshoes or Rubber Boots. Black or clear; slip-on, zipper or buckle closure.

K-8. Miscellaneous.

a. Belt. Black, embossed leather, 1-1/2" wide, with solid brass buckle. Substitute buckles are not authorized.

b. Coveralls, insulated and non-insulated. Optional. Forest green, for protection of the Class B duty and Class C work uniform in most work situations. The badge and nameplate are not required on coveralls.

c. Scarf. Black.

d. Gloves. Black, lined or unlined.

EP 1130-2-550  
15 Nov 96

K-9. Maternity Uniform.

a. Maternity Jumper. Forest green, polyester/wool, tropical and polyester/cotton, twill jumpers.

b. Maternity Top. Gray, long or short sleeve, w/badge holder, pleated pockets, military creases, and epaulets.

c. Maternity Trouser. Forest green, polyester/wool tropical and polyester/cotton, twill lightweight Class B duty trousers.

K-10. Summary of Items. Tables K-1, K-2 and K-3 lists the required and optional Classes B/C items outlined in this regulation.

TABLE K-1 ITEMS FOR CLASS B DUTY UNIFORM

| ITEM                            | REQUIRED? | SPECIAL RESTRICTIONS?        | CONTRACT ITEM? |
|---------------------------------|-----------|------------------------------|----------------|
| <b>HEADGEAR</b>                 |           |                              |                |
| Campaign-Style Hat, straw       | YES       | Summer uniform               | YES            |
| Campaign-Style Hat, felt        | YES       | Winter uniform               | YES            |
| Baseball-Style Cap              | OPT.      | Boat Patrol only             | YES            |
| Fur Trooper Cap                 | OPT.      | NO                           | YES            |
| Knit Ski-Style Hat              | OPT.      | Work situations only         | YES            |
| Hat Cover                       | OPT.      | NO                           | YES            |
| <b>COATS AND JACKETS</b>        |           |                              |                |
| Duty Jacket                     | YES       | Req. for court/formal wear   | YES            |
| Parka                           | OPT.      | NO                           | YES            |
| Overshell and pants             | OPT.      | NO                           | YES            |
| Windbreaker                     | OPT.      | Not for court or formal wear | YES            |
| Vest                            | OPT.      | Not for outer wear           | YES            |
| Raincoat, Reversible            | OPT.      | NO                           | YES            |
| Sweater                         | OPT.      | Not for court or formal wear | YES            |
| <b>SHIRTS</b>                   |           |                              |                |
| Long Sleeve and/or Short Sleeve | YES       | NO                           | YES            |
|                                 | YES       | NO                           | YES            |
| <b>NECKTIE AND RETAINER</b>     |           |                              |                |
| Necktie or Crosstie             | YES       | Opt w/short sleeve           | YES            |
| Tie Tack or Tie Bar             | YES       | NO                           | YES            |

EP 1130-2-550  
15 Nov 96

TABLE K-1 ITEMS FOR CLASS B DUTY UNIFORM (CONT.)

| ITEM  | REQUIRED? | SPECIAL RESTRICTIONS?  | CONTRACT ITEM? |
|---|-----------|------------------------|----------------|
| TROUSER/SKIRT   |           |                        |                |
| Summer Trousers/Skirt   | YES       | NO                     | YES            |
| Winter Trousers/Skirt   | YES       | NO                     | YES            |
| Washable Trousers   | OPT.      | Not worn w/duty jacket | YES            |
| FOOTWEAR  |           |                        |                |
| Black, polished plain toe (may be safety footwear if appropriate) | YES       | NO                     | YES            |
| MISCELLANEOUS   |           |                        |                |
| Belt  | YES       | NO                     | YES            |
| Coveralls   | OPT.      | Work situations only   | YES            |
| Scarf   | OPT.      | NO                     | NO             |
| Gloves  | OPT.      | NO                     | NO             |
| Badge, Nameplate  | YES       | Badge-if authorized    | NO             |

KEY: OPT. - Optional. May be worn if warranted by conditions (i.e. cold weather). However, if such a garment is worn, it must be the authorized item.

NOTE: If an item is not listed, it is NOT authorized to be worn with this class uniform.

TABLE K-2 ITEMS FOR CLASS-B MATERNITY UNIFORM

| ITEM              | REQUIRED? | SPECIAL RESTRICTIONS | CONTRACT ITEM? |
|-------------------|-----------|----------------------|----------------|
| MATERNITY JUMPER  | OPT.      | NO                   | YES            |
| MATERNITY TOP     | OPT.      | NO                   | YES            |
| MATERNITY TROUSER | OPT.      | NO                   | YES            |

KEY: OPT. - Optional. May be worn if warranted by conditions (i.e. cold weather). However, if such a garment is worn, it must be the authorized item.

NOTE: If an item is not listed, it is not authorized to be worn with this class uniform.

EP 1130-2-550  
15 Nov 96

TABLE K-3 ITEMS FOR CLASS C WORK UNIFORM

| ITEM                                 | REQUIRED? | SPECIAL RESTRICTIONS? | CONTRACT ITEM? |
|--------------------------------------|-----------|-----------------------|----------------|
| <b>HEADGEAR</b>                      |           |                       |                |
| Baseball-Style Cap                   | OPT.      | NO                    | YES            |
| Fur Trooper Cap                      | OPT.      | NO                    | YES            |
| Knit Ski-Style Hat                   | OPT.      | NO                    | YES            |
| <b>COATS AND JACKETS</b>             |           |                       |                |
| Windbreaker                          | OPT.      | NO                    | YES            |
| Parka                                | OPT.      | NO                    | YES            |
| Overshell/Pants                      | OPT.      | NO                    | YES            |
| Vest                                 | OPT.      | Not for outer wear    | YES            |
| Raincoat, Reversible                 | OPT.      | NO                    | YES            |
| Sweater                              | OPT.      | NO                    | YES            |
| <b>SHIRTS</b>                        |           |                       |                |
| Long Sleeve and/or                   | YES       | NO                    | YES            |
| Short Sleeve                         | YES       | NO                    | YES            |
| <b>TROUSER/SKIRT</b>                 |           |                       |                |
| Jeans and Washable<br>Trousers       | YES       | NO                    | YES            |
| <b>FOOTWEAR</b>                      |           |                       |                |
| Black, plain toe<br>safety foot wear | YES       | NO                    | YES            |
| <b>MISCELLANEOUS</b>                 |           |                       |                |
| Belt                                 | YES       | NO                    | YES            |
| Coveralls                            | OPT.      | NO                    | YES            |
| Scarf                                | OPT.      | NO                    | NO             |
| Gloves                               | OPT.      | NO                    | NO             |
| Badge, Nameplate                     | YES       | Badge-if authorized   | NO             |

KEY: OPT. - Optional. May be worn if warranted by conditions (i.e. cold weather). However, if such a garment is worn, it must be the authorized item.

NOTE: If an item is not listed, it is NOT authorized to be worn with this class uniform.

EP 1130-2-550  
15 Nov 96

## APPENDIX L

## UNIFORM PROCUREMENT AND ACCOUNTING PROCEDURES

This appendix contains specific guidelines for administering the uniform program. A centralized uniform distribution contract has been developed to provide a single source of uniform supply. The designated contractor is responsible for manufacturing, inventory/warehousing, distributing, and reporting requirements necessary for program management. Uniforms are supplied by the contractor through the use of a credit allowance system (individual accounts) established for permanent and temporary personnel. Procurement and accounting procedures are outlined in this appendix.

L-1. Procurement Procedures.

## a. ENG Form 4891-R.

(1) A Uniform Allowance form (ENG Form 4891-R) will be prepared for all personnel authorized to receive the uniform allowance. This form establishes the individual's account and must be completed prior to ordering. The following information must be completed in Part 1: date, individual name, sex, account number (first seven digits of the individual's social security number), district name and code, project name and code (if applicable), uniform category, initial allowance and annual replacement allowance. Part 1 of this form must be signed by the Operations Project Manager or district uniform coordinator (see page 8-C-8, ENG Form 4891-R).

(2) Resubmission of this form for permanent personnel is only required when a change in uniform class, frequency of wear, tenure status, allowance amount, maternity uniform requirement, or duty station occurs. In these cases, the resource manager or district uniform coordinator must submit an ENG Form 4891-R with the individual's name and account number completed in Part 1. The following information must also be supplied, where applicable, in Part 2: present date, new district name and code, new project name and code, new uniform category, adjusted allowance, effective date, and remarks. Part 2 of this form must be signed by the Operations Project Manager or district uniform coordinator. When an individual transfers, it is the responsibility of the receiving project (new project) to submit an updated ENG Form 4891-R.

(3) Part 3 of ENG Form 4891-R must be completed for personnel who are terminated from employment or have a change in status from uniformed to non-uniformed duty. On submission of a termination notice, the individual's name and account number must be completed in Part 1. The following information must also be supplied, where applicable, in Part 3: present date, cancel item notice, termination notice, and effective date. Part 3 of this form must be signed by the Operations Project Manager or district uniform coordinator.

(4) Temporary personnel are automatically dropped from the uniform allowance program (eliminated from the Consolidated Uniform Authorization Report) at the end of each fiscal year. A termination notice (Part 3 of ENG Form 4891-R) must be completed for temporary personnel only if they are terminated before the end of the fiscal year. A new Uniform Allowance form is required to reinstate temporary personnel each fiscal year. Specific instructions for completing ENG Form 4891-R are included on the reverse side of the form.

EP 1130-2-550  
15 Nov 96

(5) A copy of the completed Uniform Allowance form must be distributed to the uniform supplier, the district uniform coordinator, the project office (if applicable), and the individual. An individual's existing Uniform Allowance form (with Part 1 previously completed) can be used when completed Parts 2 and 3. Transmitting a facsimile copy of ENG Form 4891-R to the uniform contractor is authorized.

b. Computing Allowances.

(1) For the purpose of determining uniform allowances, the following definitions apply to uniformed personnel:

(a) Permanent - one whose appointment is not time-limited and who is in uniform on a regular or intermittent basis. This category includes permanent seasonal appointments. This includes career and career conditional personnel regardless of whether they are full time, part time or subject to furlough.

(b) Temporary - one whose appointment is time-limited. This person may wear the uniform on a regular or intermittent basis. Temporary personnel are divided into single-season temporary and multi-season temporary categories for initial allowance computations. Single-season means that a temporary will only need a summer or a winter uniform; multi-season means the person will be working multiple seasons within his/her first calendar year of employment and will need both the summer and winter uniforms.

(2) Initial allowances are authorized for permanent and temporary personnel when they are first placed in a uniformed position or placed in uniformed position after having been out of uniform for 2 years or more since the end of their last allowance period. Allowance amounts for permanent and temporary personnel are determined by the category of uniform to be worn. Initial allowances, based on the uniform allowance scheduler must be granted in the full amount of \$400.00 for permanent personnel. The initial allowance for temporary personnel is the actual cost of the articles, but not more than \$225 for a single season or \$400 if both winter and summer season uniforms are required.

(3) If a person changes status or uniform category during the year, he/she may be authorized an increased allowance to help defray the cost of the new or additional items. For example, if a person is authorized Class B/C, has received \$250, and then is promoted to a position authorizing Class A/B/C, an additional \$150 is authorized to help defray the purchase of Class A items. Also, if a person is authorized Class B/C, has received \$250, and then needs a maternity uniform, an additional \$150 is authorized to help defray the purchase of the maternity uniform items. However, in no case shall the total allowance made available to a single individual exceed \$400 in any one fiscal year.

(4) The initial allowance for permanent personnel will be authorized from the date the ENG Form 4891-R is approved until the following 30 September (the end of the fiscal year). This initial allowance will not be prorated. Uniform Allowance forms submitted to the uniform contractor during September will have an automatic effective date of 1 October (or later as specified on the allowance form).

(5) The replacement allowance for permanent personnel is issued for the fully authorized amount at the beginning of the fiscal year. This allowance is effective a full fiscal year. See Table L-1, Uniform Allowances.

EP 1130-2-550  
15 Nov 96TABLE L-1  
UNIFORM ALLOWANCES

| TENURE STATUS                | FREQ. OF WEAR          | INITIAL ALLOWANCE | FIRST YR REPLACEMENT | SUBSEQ. YR REPLACEMENT |
|------------------------------|------------------------|-------------------|----------------------|------------------------|
| PERMANENT                    | DAILY                  | \$400.00          | \$400.00             | \$250.00               |
| PERMANENT                    | INTER-MITTENT          | \$400.00          | \$125.00             | \$125.00               |
| NEW SINGLE-SEASON TEMPORARY* | DAILY OR INTER-MITTENT | \$225.00          | N/A                  | N/A                    |
| NEW MULTI-SEASON TEMPORARY** | DAILY OR INTER-MITTENT | \$400.00          | N/A                  | N/A                    |
| RETURNING TEMPORARY          | DAILY OR INTER-MITTENT | \$225.00          | N/A                  | \$225.00               |

\* Requires the summer or winter uniform only.

\*\* Requires both the summer and winter uniforms (individual will be working multiple seasons within his/her first calendar year of employment).

Note: The allowances are the same regardless of uniform class (Class A, Class BC or Class ABC).

c. Ordering from the Approved Contractor.

(1) Following the establishment of a uniform account, the individual may complete the order form and return it to the district uniform coordinator or resource manager. If this is the first order for that person, an ENG Form 4891-R may be forwarded with the completed order form. The resource manager or district uniform coordinator will order all items for temporary personnel. It is important that the size information at the top of the order form be completed for accurate order filling. Seasonal personnel must be indicated as permanent duty status on ENG Form 4891-R. The form is reviewed for thoroughness and accuracy and is forwarded to the Contractor at Government expense.

EP 1130-2-550  
15 Nov 96

(2) In cases where the order exceeds an individual's account balance, a personal check, money order or charge card number must be included with the order for the excess amount. There is a minimum on all credit card charges. Contact the uniform supplier for this information. If payment is not included, the Contractor will notify the individual of the amount owed and will hold the order until full payment is made.

(3) Permanent personnel should make every effort to review uniform needs and place orders in advance of the season to assure prompt delivery and lessen shipping demand. When possible, individuals should anticipate uniform needs and place no more than two orders annually.

(4) The allowance period for permanent personnel is 1 October to 30 September of the following year. Because of fiscal year-end requirements, the Contractor will not accept any orders for uniform items during the month of September. Therefore, orders that cannot reach the Contractor by 31 August should not be mailed.

(5) Within 10 days of receipt of an order, the uniform supplier will fill the order or notify the individual of the status of the order.

(6) Return of items to the uniform supplier for reasons including wrong or defective items is authorized at Government expense. Returns will be credited to the individual's account or replaced. Items that have been laundered or washed cannot be returned unless defective.

(7) Bulk orders and direct purchases of uniform items for temporary individuals may be made from the uniform supplier. All bulk orders and direct purchases must be approved in advance by the district uniform coordinator. Direct purchases cannot be used to supplement the uniform allowance. Issuing Government-owned uniforms to an individual who has been granted a uniform allowance is prohibited. Those districts wishing to make purchases for temporary personnel on a district-wide scale rather than on an individual basis must forward the name of the person making the procurement to the HQUSACE (CECW-ON) uniform coordinator. The individual making this procurement may be the Disbursing Officer, the district uniform coordinator or other designated individual. Since funds for orders of this type will not come from individual accounts, necessary verification and certification of funds must be accomplished within the district prior to placement of the order. Items purchased on bulk order are the property of the Corps of Engineers and are returned to the project when personnel are no longer employed.

## L-2. Accounting Procedures.

### a. Administrative Procedures.

(1) Responsibility for administration of the uniform program lies with the district uniform coordinator. (Delegation of responsibilities to the project level is authorized.)

(2) Accounting begins with the proper disposition of the file copies of ENG Form 4891-R, as detailed in the previous section. Copies must be retained until the individual transfers or is terminated, at which time they should be transferred with the individual or in the latter case, kept for 1 year and then destroyed.

(3) The activity commander will have in place a set of effective internal controls to assure the avoidance of fraud, waste and abuse.

EP 1130-2-550  
15 Nov 96

b. Shipping Order - Receiving Reports.

(1) Enclosed in all uniform shipments are (two) copies of a shipping-receiving report. This report is computer printed by the uniform supplier upon receipt of an order and remains with the order throughout the packing/shipping process. It reflects all credits, debits, cash payments and remaining allowances and serves as verification for all payment to the Contractor. Upon receipt of a shipment and verification of the uniform items enclosed, the permanent uniformed individual (or other responsible designated person) will sign the copies of the shipping order-receiving report. A designated person will verify and sign the shipping-receiving report for temporary personnel.

(2) After the uniform shipment has been verified and the shipping-receiving report signed, copy 2 must be forwarded to the district uniform coordinator so that all payments to the contractor can be verified. Copy 3 is retained at the resource manager's office. Copy 1 is retained by the uniform contractor. The shipping-receiving report must be kept on file for at least 1 year.

c. Fiscal Reports. At the end of each fiscal quarter, the contractor will furnish the district uniform coordinator with the District Quarterly Status Report (QSR), Level 1 (District). Also, upon request, the contractor will furnish a District Activity Report. At the end of each fiscal year, the contractor will provide the Consolidated Uniform Allowance Authorization Report. These reports detail individual account status.

(1) The Quarterly Status Report, Level 1 (District), must be reviewed by the district uniform coordinator against the shipping order-receiving reports for each project. These reports contain information such as individual name, address, account number, beginning and ending dates, uniform category, year to date ordering history by item and remaining allowance balance. If any of the contractor's data is in error, the error(s) must be corrected on the reports. The original, corrected or verified reports are to be returned to the contractor. Copies should be made and retained by the district uniform coordinator.

(2) The Quarterly Status Report, Level 2 (Division), will be furnished by the contractor to each division uniform representative. The report provides summary totals of the QSR Level 1 Report including a quarterly summary of allowance and sales activity for each District.

(3) The Quarterly Status Report, Level 3 (Washington), provides summary totals of the QSR Level 2 Report, including a quarterly summary of allowance and sales activity for each Division. This report will be furnished to the designated Contracting Officers Technical Representative.

(4) The Consolidated Uniform Allowance Authorization Report is furnished at the end of the fiscal year. This report must be reviewed for accuracy and each page certified and signed by the district uniform coordinator. Changes must be made on the report itself. The report, when certified by the district uniform coordinator, will be used to re-authorize accounts for the coming FY for permanent personnel.

(5) Allowance Status Report (ASR). Each contractor response to an individual's order shall provide the individual's remaining credited uniform allowance as of the date of the contractor's response.

EP 1130-2-550  
15 Nov 96

| UNIFORM ALLOWANCE<br>(CHANGES/TRANSFERS/TERMINATIONS)  |    |  |   |   |                          |                          |    |                               |  |
|--|----|--|---|---|--------------------------|--------------------------|----|-------------------------------|--|
| <i>NOTE TO USER: The three parts of this form are executed at separate intervals. Each time a part is executed, a copy of the form will be provided to the -</i>               |    |  |   |   |                          |                          |    |                               |  |
| 1. UNIFORM CONTRACTOR  |    | 2. DISTRICT UNIFORM COORDINATOR  |   | 3. PROJECT OFFICE (if applicable)   | 4. EMPLOYEE              |                          |    |                               |  |
| PART 1 - INITIAL EMPLOYEE DATA   |    |  |   |   | 1. DATE                  |                          |    |                               |  |
| 2. EMPLOYEE NAME (Last, First, MI)   |    |  | 3. SEX<br><input type="checkbox"/> Male<br><input type="checkbox"/> Female  | 4. EMPLOYEE ACCOUNT NO. <sup>1</sup>  |                          |                          |    |                               |  |
| 5. DISTRICT DATA   |    |  | 6. PROJECT DATA   |   |                          |                          |    |                               |  |
| a. DISTRICT NAME   |    | b. CODE  | a. EMPLOYEE LOCATION  |   | b. CODE (Up to 4 spaces) |                          |    |                               |  |
| 7. BASIS FOR ALLOWANCE (Uniform Category)  |    |  |   |   |                          |                          |    |                               |  |
| 8. UNIFORM DATA  |    |  | 9. TENURE STATUS  |   |                          |                          |    |                               |  |
| CLASS<br><input type="checkbox"/> Class A (A)<br><input type="checkbox"/> Class BC (BC)<br><input type="checkbox"/> Class ABC (ABC)  |    | USAGE FREQUENCY<br><input type="checkbox"/> Daily<br><input type="checkbox"/> Intermittently (I) | <input type="checkbox"/> Permanent (P)<br><input type="checkbox"/> New Temporary - Single Season (S)<br><input type="checkbox"/> New Temporary - Multi-Season (M)<br><input type="checkbox"/> Returning Temporary (R) |   |                          |                          |    |                               |  |
| 10. INITIAL ALLOWANCE  |    |  | 11. ANNUAL REPLACEMENT ALLOWANCE  |   |                          |                          |    |                               |  |
| Starting Date  | Mo | Day  | Yr  | Starting Date   | Mo                       | Day                      | Yr | 1st Replacement yr \$         |  |
| Ending Date  | 9  | 30   | -   | Ending Date   | 10                       | 1                        | -  | Subsequent Replacement yrs \$ |  |
| Amount \$ _____  |    |  |   |   |                          |                          |    |                               |  |
| 12. AUTHORIZING OFFICIAL <sup>2</sup>  |    |  |   |   |                          |                          |    |                               |  |
| a. NAME AND TITLE (Type or Print)  |    |  | b. SIGNATURE  |   |                          | c. DATE                  |    |                               |  |
| PART 2 - EMPLOYEE DATA REQUIRED BECAUSE OF <input type="checkbox"/> CHANGE <input type="checkbox"/> TRANSFER   |    |  |   |   |                          |                          |    | 11. DATE                      |  |
| 12. NEW DISTRICT DATA  |    |  |   | 13. NEW PROJECT DATA  |                          |                          |    |                               |  |
| a. DISTRICT NAME   |    | b. CODE  |   | a. EMPLOYEE LOCATION  |                          | b. CODE (Up to 4 spaces) |    |                               |  |
| 14. NEW BASIS FOR ALLOWANCE (Uniform Category)   |    |  |   |   |                          |                          |    |                               |  |
| 14. NEW UNIFORM DATA   |    |  |   | 15. NEW TENURE STATUS   |                          |                          |    |                               |  |
| CLASS<br><input type="checkbox"/> Class A (A)<br><input type="checkbox"/> Class BC (BC)<br><input type="checkbox"/> Class ABC (ABC)<br><input type="checkbox"/> Intermittently |    | USAGE FREQUENCY<br><input type="checkbox"/> Daily<br><input type="checkbox"/> Intermittently (I) |   | <input type="checkbox"/> Permanent (P)<br><input type="checkbox"/> New Temporary - Single Season (S)<br><input type="checkbox"/> New Temporary - Multi-Season (M)<br><input type="checkbox"/> Returning Temporary (R) |                          |                          |    |                               |  |
| 15. ADJUSTED ALLOWANCE   |    |  |   | 16. EFFECTIVE DATE (Mo/Dy/Yr)   |                          |                          |    |                               |  |
| a. Authorized Amount:  | \$ | _____  | b. Previous Action (s):   | \$  | _____                    | c. Balance:              | \$ | _____                         |  |
| d. Additional Allowance:   | \$ | _____  | e. New Balance:   | \$  | _____                    | 17. REMARKS              |    |                               |  |
| 18. AUTHORIZING OFFICIAL <sup>2</sup>  |    |  |   |   |                          |                          |    |                               |  |
| a. NAME AND TITLE (Type or Print)  |    |  | b. SIGNATURE  |   |                          | c. DATE                  |    |                               |  |
| PART 3 - TERMINATION DATA  |    |  |   |   |                          |                          |    | 19. DATE                      |  |
| 20. <input type="checkbox"/> CANCEL ITEMS ON ORDER   |    |  |   | 21. <input type="checkbox"/> TERMINATE  |                          |                          |    | 22. EFFECTIVE DATE            |  |
| 23. AUTHORIZING OFFICIAL <sup>2</sup>  |    |  |   |   |                          |                          |    |                               |  |
| a. NAME AND TITLE (Type or Print)  |    |  | b. SIGNATURE  |   |                          | c. DATE                  |    |                               |  |

**FOOTNOTES:** <sup>1</sup> First seven digits of SSN. <sup>2</sup> Resource Manager or District Uniform Coordinator  
 ENG FORM 4891-R, Oct 91 REPLACES ENG FORM 4891, FEB 86, WHICH IS OBSOLETE. (Proposed: CECW-CH)

Figure L-1. ENG Form 4891-R  
  
 FOR ILLUSTRATION PURPOSES ONLY  
 (Local reproduction authorized - blank masters  
 available from local FMO)

EP 1130-2-550  
15 Nov 96

## ENG FORM 4891 - INSTRUCTIONS

## PART 1 - INITIAL EMPLOYEE DATA

- Block 1 thru 3 - Self Explanatory  
 Block 5 and 6, DISTRICT AND PROJECT DATA - District and Project Codes are designated by the District Uniform Coordinator.  
 Block 7a, UNIFORM DATA - Check authorized uniform and frequency wear.  
 Block 7b, TENURE STATUS - Check one. Note: Seasonal personnel who return every year are considered "permanent." See Block 8 for definition of temporary employees.  
 Block 8, INITIAL ALLOWANCE - This applies to permanent and temporary personnel. Starting date is the date the employee is authorized to wear the uniform. The ending date is 30 September (enter the current fiscal year) for all personnel.  
 Amount: \$400.00 for permanent personnel who wear the uniform on a daily or intermittent basis. The allowance for temporary personnel is the actual cost of the articles, but no more than \$225.00 for a new single-season temporary (summer or winter uniform required) and \$400.00 for a new multi-season temporary (when multiple seasons are worked within a fiscal year and the summer and winter uniforms are both required.) The allowance amount for returning temporary employees is the actual cost of the articles, but no more than \$225.00.  
 Block 9, ANNUAL REPLACEMENT ALLOWANCE - This applies to permanent personnel only. Temporary employees do not receive replacement allowances. A new Uniform Allowance form is required to reinstate returning temporary employees.  
 Amount: \$400.00 for permanent employees wearing the uniform on a daily basis for the first replacement fiscal year and \$250.00 per year thereafter \$125.00 per year for permanent employees wearing the uniform on an intermittent basis.  
 Block 10 - Self explanatory

PART 2 - EMPLOYEE DATA REQUIRED BECAUSE OF  CHANGE  TRANSFER

Note: Also complete Block 2 and 4 of Part 1.

- Block 11 - Self Explanatory  
 Block 12 and 13, NEW DISTRICT AND PROJECT DATA - Enter new District and Project name and codes if applicable. Codes are designated by District Uniform Coordinator.  
 Block 14a, NEW UNIFORM DATA - Check new authorized uniform class and frequency of wear, if applicable.  
 Block 14b, NEW TENURE STATUS - Check new status, if applicable.  
 Block 15, ADJUSTED ALLOWANCE  
 Block 15a, AUTHORIZED AMOUNT - Employee's present authorized amount.  
 Block 15b, PREVIOUS ACTION(S) - Amount of allowance spent during the current fiscal year.  
 Block 15c, BALANCE - Current allowance balance (Subtract Line 15b from Line 15a).  
 Block 15d, ADDITIONAL ALLOWANCE (if any) - if an individual changes uniform class/wear frequency or tenure during the year, he/she may be authorized an increased allowance to cover the cost of the new or additional items. THE TOTAL UNIFORM ALLOWANCE AUTHORIZED FOR AN INDIVIDUALIZED IN ANY ONE FISCAL YEAR CANNOT EXCEED \$400.00.  
 Block 15e, NEW BALANCE - The adjusted amount for the remainder of the fiscal year (Add line 15c and Line 15d).  
 Block 16, Self explanatory.  
 Block 17, REMARKS - Explain action taken.  
 Block 18, Self explanatory.

## PART 3 - TERMINATION DATA

Note: Also complete Block 2 and 4 of Part 1

- Block 19, Self explanatory  
 Block 20, CANCEL ITEMS ON ORDER - Cancel all items the individual recently ordered but did not receive.  
 Block 21, 22 and 23 - Self explanatory.

Note: An employee's existing "Uniform Allowance" form (with Part 1 previously completed) may be used when completing Parts 2 and 3. Copies must be distributed to the Contractor, District Uniform Coordinator, Project Office (if applicable), and the Employee, each time a part of the form is executed.

Reverse of ENG Form 4891-R

Figure L-2. ENG Form 4891-R (Instructions)



EP 1130-2-550  
15 Nov 96

## APPENDIX M

## USE FEE CRITERIA

## GROUP AND SINGLE USER UNIT CAMP AREAS

| <u>AREA TYPE &amp; FACILITIES</u>    | CLASS E   | CLASS D         | CLASS C         | CLASS B         | CLASS A         |
|--------------------------------------|-----------|-----------------|-----------------|-----------------|-----------------|
| Group Camp Areas                     | No Fee    | Minimum<br>\$20 | Minimum<br>\$30 | Minimum<br>\$40 | Minimum<br>\$50 |
| Single User Unit<br>Camp Areas       | No Fee    | Minimum<br>\$3  | Minimum<br>\$4  | Minimum<br>\$6  | Minimum<br>\$8  |
| <u>FACILITY CRITERIA</u>             |           |                 |                 |                 |                 |
| Restrooms                            | <u>2/</u> | <u>1/</u>       | Vault           | Vault           | Flush           |
| Potable Water                        |           |                 | Yes             | Yes             | Yes             |
| Fireplaces <sup>3/</sup>             |           |                 | Yes             | Yes             | Yes             |
| Refuse Containers                    |           |                 | Yes             | Yes             | Yes             |
| Access Road                          |           |                 | Yes             | Yes             | Yes             |
| Designated tent or<br>Trailer Spaces |           |                 | Yes             | Yes             | Yes             |
| Visitor Protection <sup>4/</sup>     |           |                 | Yes             | Yes             | Yes             |
| Personal Fee<br>Collection           |           |                 | Yes             | Yes             | Yes             |
| Picnic tables                        |           |                 | Yes             | Yes             | Yes             |
| Showers                              |           |                 | No              | No              | Yes             |
| Sanitary Disposal<br>Station         |           |                 | No              | Yes             | Yes             |
| Circulatory Roads                    |           |                 | Yes             | Yes             | Yes             |

1/ If at least 5 of the first 9 facility criteria are met, the site qualifies for at least a Class D designation and a fee should be charged.

2/ If less than 5 of the first 9 facility criteria are met, the site is a Class E, no-fee site.

3/ A simple device for containing a campfire (where campfires are permitted) e.g. rock ring, fireplace, or grill.

4/ Reasonable control for protection of campers consists of Corps ranger or local law enforcement surveillance.

Note: Individual campsites within a single campground may vary in quality or desirability due to location and/or campsite amenities. Variable pricing of fee campsites within a single campground may be instituted within the guidelines established above, if such campsite variances are identified. Variable pricing for camping use may also be established based upon time differences, such as different seasons or different days of the week. Examples of variances which might affect quality or desirability of campsites include, but are not limited to:

EP 1130-2-550  
15 Nov 96

(1) Proximity to the lake, proximity to attendant facilities, availability of shade, availability of individual water or sewer hookups and size or screening of site.

(2) Certain times which are more desirable for camping use, such as weekends in the summer.

EP 1130-2-550  
15 Nov 96

APPENDIX N  
SPECIAL EVENTS

N-1. General. Consideration will be given to permitting special events at Corps lakes such as water carnivals, fishing tournaments, boat regattas, music festivals, dramatic presentations and other special recreational programs of interest to the general public.

N-2. Permit Applications. The sponsoring agency must obtain a receipt/permit (ENG Form 4457) from the operations project manager prior to the event date. Reservations for the use of Corps facilities to host a special event may be obtained in person or by phone from the Corps Operations Project Manager or his/her representative. The receipt/permit will describe the nature of the event, the starting and closing date, the location or area desired for the event, and any other pertinent data.

9-B-3. Qualifications for Permit. In order to qualify for a special event permit, the event must contribute to the enjoyment of the public and comply with established land use classifications.

a. The following requirements will be attached to the receipt/permit issued to the sponsoring agency:

(1) The right to charge is based on the sponsor providing parking assistance, adequate policing for crowd supervision and control, and other services required for the health and welfare of the visitor. The sponsoring agency must meet bonding, insurance, and other requirements unique to the local area.

(2) No costs shall accrue to the government.

(3) Private use of the project lands will not preempt public use of project recreational resources.

(4) The permitted site will be fully restored to prior conditions by the permittee. A performance bond may be provided to cover potential damages and maintenance cost. Forty-eight hours will be allowed in which to clear the permitted site after the event closes.

(5) The operations project manager will determine the number of hours per day the event may take place, however, the permit will be limited to four days with a prohibition against holiday use. District commanders may make special exceptions on a case-by-case basis.

(6) Collection of any funds in connection with the event must be approved by the district commander prior to issuance of the permit. Collections of entry fees in excess of actual total costs will be paid to the Corps for legal disposal unless surplus proceeds are used for benefit to the project. A collection cost analysis will be provided by the sponsor within 30 days following the event. The government reserves the right to audit the sponsor's records.

(7) Concession permits may be granted to requesting organizations only in the absence of a licensed concessionaire at the permitted site or the concessionaire's inability to supply the needs of the proposed activity.

EP 1130-2-550  
15 Nov 96

b. Admission to view the event must not be limited to membership of the sponsoring group, nor will any discrimination be made against a person because of race, creed, sex, or national origin in conducting activities. Special event permits will include the following condition relating to discrimination:

"Admission to view the event will be open to the general public without discrimination on the grounds of race, color, religion, national origin, sex, or age. Participation in the event may be limited to members of the sponsoring group provided that the group does not unlawfully discriminate against participation in the event on grounds of race, color, religion, national origin, sex or age. Request for special events permits citing "special circumstances" for participation requiring gender or age discrimination must be accompanied by an exceedingly persuasive justification. This may be appropriate for activities such as contact sports and sports such as tennis, golf, or competitive swimming. Fishing tournaments do not qualify for discrimination based on gender."

c. The United States Government is not responsible for damage to property for injury to persons attending the event. The permittee will be responsible for health and safety requirements of participants.

d. The permit request must be in accordance with applicable Federal, state, and local laws.

EP 1130-2-550  
15 Nov 96

## APPENDIX O

### PROGRAM INTEGRITY: HONOR VAULTS

O-1. Honor vaults are very susceptible to fraud and embezzlement. Consequently, honor system programs require diligent audit and quality assurance attention. Controls and methods can be used to better ensure the integrity of honor system collections. Failure to follow physical and operational control methods may cause an auditor to question program integrity and could even open the program to fraud.

O-2. The following controls are suggested to strengthen the integrity of the honor vault fee collection program:

a. Physical Controls: Physical controls can enhance the integrity and quality assurance of the honor vault method of fee collection. It is recommended that honor vaults feature a removable double locked container that would allow for only one designated fee collector to remove the full container and replace it with an empty one. Examples of physical controls include the following:

(1) Double Box System: The fee collector unlocks the honor vault and removes the double-locked fee collection box.

(2) Single Box System with Removable Vault: An alternative to the double box is a system where the entire safe is removable and essentially serves the same purpose as the inner double locked collecting box. The fee collector unlocks the safe from the mounting bracket and replaces it with an empty safe.

(3) Double Locking Honor Vaults: If a removable fee collection container is not provided, accountability can be strengthened by having two individually keyed locks so that two keys from two different persons are needed to open the vault.

(4) Dual Locking Containers: All of the above methods of physical control make use of dual locking containers.

b. Operational Controls.

(1) Dual Control: Having two employees present at all times when fee revenues are accessed is a basic quality assurance method.

(2) Rotating Duties: Dual control can be improved by ensuring that the same two employees are not routinely paired for fee collection activities.

(3) Separation of Duties: A single employee should not have complete and individual control of funds and related paperwork from collection through deposit.

(4) Fraud Reporting Requirements: Posted notices, written operating procedures, orientations, etc. should make it clear that it is the duty of employees to report matters of known, suspected, or alleged fraud to the appropriate authorities.

EP 1130-2-550  
15 Nov 96

(5) Tracking Fee Payment Envelopes: Honor systems envelopes should be subsequently numbered so they can be easily tracked for auditing purposes.

(6) Supervisory Control: Supervisors should be knowledgeable of fee collection operations and should develop and provide written operating procedures.

c. Auditing Controls: ER 37-2-10 calls for "constant review and examination by internal audit staffs" and provisions for "policing the effectiveness of the prescribed procedures by those responsible for managing government resources use the following methods, among others, for verifying that envelopes and funds are turned in for deposit.

EP 1130-2-550  
15 Nov 96

## APPENDIX Q

### DIRECT TRANSMITTAL OF RECREATION USE FEES

Q-1. To implement this programs the following procedures are required:

a. Issue fee books and/or annual day use passes with hand receipts to gate attendants. This is an important means of verification. Gate attendants are accountable for all ENG Form 4457 and ENG Form 4839B permits that they are issued. They must either return unused forms or remit monies for used forms.

b. Gate attendants will prepare all documentation presently required by the servicing F&A office. Gate attendants are responsible for directly mailing this to F&A with fee remittances. Project personnel are responsible for insuring that contract gate attendants complete all documentation and remittance transmittals correctly and in a timely manner.

c. Gate attendants contracting under this procedure are responsible for all fee monies from the time they are collected to their receipt by the servicing F&A office. Fee remittances must be transmitted to the F&A office by money order or certified check. Gate attendants making direct transmittals must be bonded, for the maximum amount which may be collected before transmittal to the F&A office. It is the responsibility of the contract gate attendant to provide an adequate fidelity bond to the project or resource manager prior to beginning work. Note that the required bond is not a security or performance bond.

Q-2. When instituting this program, it is important to have close coordination among Natural Resources and Finance and Accounting personnel.

Q-3. In order to insure the security of collected fees, strict controls must be in place. Unannounced spot audits of each gate attendant contract by project personnel must be performed at least once in every two-week period. It is essential that project personnel train gate attendants on the necessity of funds security. A complete reconciliation of all ENG Form 4457s and ENG Form 4839Bs issued and monies collected and either currently held or previously transmitted by the gate attendant contractor must be made by project personnel as often as necessary to insure full accountability. Statements must be inserted in gate attendants contracts specifying that final payment will not be made to the contractor until all funds are reconciled. Vigilance in gate attendant contract administration must be maintained.





EP 1130-2-550  
15 Nov 96

DATA REQUIRED BY THE PRIVACY ACT OF 1974

DATA REQUIRED BY THE PRIVACY ACT OF 1974  
(5 U.S.C. 552a)

The Privacy Act of 1974 requires each individual asked or required to furnish personal information to be advised of the following:

Title of Form: Golden Age and Golden Access Passport Record

Authority: P.L. 92-347 (86 Stat. 459) and P.L. 93-303 (88 Stat. 192)

Principal Purpose(s): To provide corroboration of evidence of age or disability required for issuance of "Golden Age Passport" and "Golden Access Passport", and maintain information for auditing of program.

Routine Uses: Golden Age and Golden Access Passports are issued under the direction of the Department of the Interior which receives a yearly report of the total number issued. The name and address of those who obtain the Golden Age or Golden Access Passport is not reported, but maintained on file at the Corps of Engineers project office to provide a spot audit of the validity of Golden Age or Golden Access Passport issuance. This information is not maintained alphabetically or by other personal identifier. It is destroyed 30 days after the end of the calendar year.

Mandatory or Voluntary Disclosure and Effect on Individual Not Providing Information: VOLUNTARY.  
Failure to provide the requested information will preclude issuance of a Golden Age or Golden Access Passport.

ENG FORM 446BA-R, Jun 85

EP 1130-2-550  
15 Nov 96

APPENDIX R  
MAINTAINING FUNDS SECURITY

R-1. Corps employees and contractors must be provided the following procedural guidance concerning accountability of Government funds:

a. Always be prepared for an audit. Gate attendants and cashiers are accountable for change funds, money collected from the sale of user permits, and permit books and forms, Government change funds, will not be provided to contractors.

b. Never mix personal funds with government funds. Fees collected, permits books, and collections records must be available for accounting purposes at all times.

c. User fee permit books must always be issued in sequence and permits sold in sequence.

d. Store money, and books in a permanently installed vault or safe, provided by the government.

e. Districts should appoint on-site auditors to check procedures used in collecting, handling, and transmitting fees.

f. Each district must review the intrusion prevention system at money handling offices to determine the need for incorporating alarms or other security devices.

g. All Corps personnel and contractors responsible for collection, transporting, transmitting, or accounting for fees or user fee permits must be provided a security awareness briefing prior to assignment of these responsibilities. The contractor's security awareness briefing will be provided as part of the pre-work meeting.

R-2. To further limit the amount of cash on hand, the use of credit cards and checks to pay recreation user fees should be encouraged. Checks must be made out to the servicing F&A office. A driver's license number must be recorded on the check, as well as standard information such as name, address, and telephone numbers. Coordination among Natural Resources and Finance and Accounting personnel is necessary to streamline paperwork procedures for remitting checks.



EP 1130-2-550  
15 Nov 96

## APPENDIX S

### OUTLINE OF MONITORING PLAN FOR OFF-ROAD VEHICLE AREAS

S-1. Executive Order 11644 requires that each agency monitor the effects of the use of off-road vehicles on lands under its jurisdiction. Data regarding the impact of off-road vehicles on soils, vegetation, water, air wildlife and other recreation activities is very limited. To provide for this recreation activity in harmony with other recreation activities and avoid despoilment of the resource base monitoring of the effects of ORV use will be accomplished as effectively as possible.

S-2. The following outline encompasses significant features which should be monitored in ORV areas within the capability of the District Engineer. It is recognized that a scientific evaluation of the impact of ORV's would encompass a great deal more data collection and analysis. The following encompasses a rather limited approach to guide the District Engineer within his budgetary constraints and manpower ceilings.

#### S-3. Outline.

- a. Estimate of use of area or trail by both ORV users and non-users.
- b. Impact of ORV use on vegetation, soil and water.
  - (1) Map existing trails in designated ORV area.
  - (2) Record mileage and average width of existing trails.
  - (3) Rate existing trails according to light, medium or heavy use.
  - (4) Select random sample plots on existing trails covering a variety of terrain, vegative and soil conditions.
    - (a) Photograph sample plots.
    - (b) Record width of trail and depth of ruts at selected intervals.
    - (c) Record inventory of vegetative community within the sample plot. Inventory should include species composition and size of woody vegetation.
    - (d) Record general condition of vegetation in sample plot.
    - (5) Record, at intervals of 0, 1, 3, and 5 years, those items included in (4) above.
    - (6) Define control plots near test plots to determine impact with and without ORV use.
    - (7) All control plots and test plots should be permanently but inconspicuously marked so that photographs and data collection can be accomplished on the same area in subsequent years.
    - (8) The following can be determined from test sections:

EP 1130-2-550  
15 Nov 96

- (a) Impact on young vegetative growth.
  - (b) Impact on larger trees and shrubs (compaction, direct damage, root exposure).
  - (c) Impact on soil (erosion, compaction, lateral movement).
  - (d) Trail width variation from year to year.
  - (e) Extent of impact on either side of trail.
  - (f) Comparison of impact of ORV use on test plots with no ORV use on control plots.
  - (g) Annual spot checks of vulnerable areas such as steep slopes, creek banks and lake shoreline, should be conducted.
- c. Impact of ORV use on wildlife.
- (1) Track counts of big game animals such as deer, antelope and elk in ORV area compared to those outside ORV area.
  - (2) Count of songs of game birds and non-game birds.
  - (3) If hunting is permitted, compare wildlife harvest in ORV area to that of other areas in the project.
  - (4) Record sightings of game and non-game species.
- d. Impact of ORV use on other recreation activities.
- (1) Survey type and amount of recreation use on areas adjacent to designated ORV areas.
  - (2) Record attitudinal response of visitors who are surveyed as nearly as possible.
  - (3) Record distance between area where survey is made and the ORV area.

HQ AR000780-HQ AR000792

## A History of the USACE Civil Works Program

As presented by Ron Allen, Assistant Chief Counsel for Legislation and General Law, HQUSACE on 25 June 1996

### Introduction

This is a seminar on the Civil Works program of the United States Army Corps of Engineers. It is conducted under the auspices of the Chief Counsel, intended specifically to benefit the Corps attorneys who are currently enrolled in the Masters Program in environmental and natural resources law at the National Law Center, George Washington University. I am honored that the Chief Counsel, Deputy Chief Counsel and these learned Masters candidates are with us and that the rest of us are here as well and that the Chief Counsel has selected me to facilitate this seminar.

This seminar is scheduled for three hours. I will ask you to listen to me for the first hour on the origins and broad principles of the Corps' multiple purpose Civil Works development program. At the conclusion of my presentation I will propose a ten minute break and, upon our return from the break, I will turn this proceeding over to my associate, Lance Wood who is, of course, a scholar of national reputation able to educate us on any subject and most assuredly, on the origins and broad principles of the Civil Works regulatory program. For it will prove to be that he who is responsible for the development of the waters of the United States for the federal government is also responsible for protecting those waters for the federal government and for regulating the development in those waters by others. It is a tapestry of development and regulation that should weave together when we have the strands.

After Lance's presentation I will propose that Lester Edelman, the Chief Counsel, join Lance and me as a panel where you and we can all have an opportunity for comments and questions and, most importantly, an opportunity to share the thoughts of the Chief Counsel. As most of you are aware, Lester Edelman has been instrumental in his service to the Congress and the Executive in helping to shape and lead the Corps' Civil Works program in its modern era.

So, I am going to start off this proceeding by presuming to tell Lester Edelman what the Civil Works program is all about. Then I will go teach Michael Jordan how to play basketball. What follows are my views, not necessarily the views of the Corps of Engineers or any other organization or individual. However, I wish to acknowledge substantial assistance from a handful of excellent publications such as the 1951 "Water Resources Law" Report of the President's Water Resources Policy Commission; the 1988 publication of the Public Works Historical Society entitled The Flood Control Challenge, Past, Present, and Future; and the 1988 publication of Joseph Arnold entitled The Evolution of the 1936 Flood Control Act. I am also particularly indebted to the authors of a document entitled The United States Constitution.

### Presentation

In the beginning, there was no multiple purpose Civil Works program of the United States Army Corps of Engineers; there was no United States Army Corps of Engineers; and there was no United States. In the latter part of the 1700s there was simply discontent and revolution arising in the 13 colonies against Mother England and at a place today called Bunker Hill in Boston, some of that colonial discontent was violently manifested against the forces of the British king and the fledgling revolutionary army picked an engineer for the battle of Bunker Hill who is said to be the first Army Chief of Engineers of the new nation then forming.

Sometime after the battle of Bunker Hill in Boston and prior to the British surrender to the American revolutionaries at Yorktown, Virginia, there was a marvelously capable American fighting man named Benedict Arnold who turned traitor to the American forces

HQ AR000780

and conveyed the plans to an American fortification known as West Point on the Hudson River, New York to a Major André of the British forces. The British Major André is often described in our histories as "the dashing Major André" but he was not dashing enough to get those plans for West Point from Benedict Arnold to the British Army and André was captured with the plans by the American forces as André attempted to make his way through the American lines and to the British forces then occupying New York City. So the dashing British Major André was executed by the revolutionary forces of this new nation, thereby assuring that Benedict Arnold would spend his retirement years in infamy in England and this nation would keep West Point to become, early on, a school for Army officers to be particularly skilled in engineering and the nation would emerge with a corps of well trained Army engineers available for military or civil purposes.

So there we were in the late 1700s. We beat Cornwallis at Yorktown and we kept West Point to be a primary source of well trained engineers for a government of a new United States that was initially formed under Articles of Confederation that were bound to fail. And with the failure of the Articles of Confederation, came the formation and adoption of the United States Constitution that Congressman Oberstar so ably and justifiably celebrated for us at our recent Law Day observation. And, it turns out that the then new federal government of the United States at the turn of the 19th century was a government of limited and enumerated powers and some of which powers, nonetheless, might prove of increasing importance to a Corps of well trained Army engineers available to help the Nation.

For example, the United States, under the Constitution had:

- the powers to raise and support armies and to declare war, (which are certainly fundamental powers to facilitate any Army organization) and for our purposes the United States had other powers that might prove to be important, such as:
- the power to dispose of and make all needful rules and regulations respecting territory or other property belonging to the United States;
- the power to provide for the general welfare of the United States; and
- the power to regulate commerce with foreign nations, and among the several states, and with the Indian tribes.

The new United States Constitution also provided that the United States could make all laws necessary and proper for carrying out its powers and that those federal laws made pursuant to the United States Constitution were to be the supreme law of the land anything in the laws of any State to the contrary notwithstanding.

Nonetheless, the federal government was and remains a government of limited and enumerated powers as provided in the U.S. Constitution. And you may remember that there was an early struggle between Thomas Jefferson and his followers and Alexander Hamilton and his followers over the power that could be or should be exercised by the federal government over the activities of the new nation.

Thomas Jefferson and his followers Madison and Monroe held the federal executive powers in the early 1800s and notwithstanding that President Jefferson used his supposed limited powers very liberally to acquire vast new territories for the United States, the Jeffersonians professed a belief in a nation of small farms with a very limited, if not weak, federal government. For example, there were congressional interests who wished the federal government to develop a national system of roads and federally funded navigation improvements in the early 1800s but those federalists' interests were effectively opposed by the philosophy of very limited federal government of the Jeffersonians and it is reported that President Madison and President Monroe each, in turn, vetoed federal measures to accomplish these so-called internal improvements. And a national debate over the proper sphere of the activities of the federal government has continued more or less in one form or

another from then to now.

Thomas Jefferson was, of course, a most interesting statesman and his views on limited federal powers extended very definitely to the role of the federal judiciary. For example, Mr. Jefferson said: "the Constitution meant that its coordinate branches should be checks on each other. But the opinion which gives to the judges the right to decide what laws are constitutional, and what not, not only for themselves in their own sphere of action, but for the Legislative and Executive also in their spheres, would make the Judiciary a despotic branch."

Thomas Jefferson certainly had one federal judge that he thought of as a despot and he turned out to be another gentleman from Virginia who was Jefferson's cousin. His name was John Marshall and he was a federalist who believed in a strong federal government and as Chief Justice of the United States Supreme Court, Marshall also believed in a strong federal judiciary. Accordingly, President Jefferson and Chief Justice Marshall had different philosophies on the proper power of the federal government and the judiciary. They were not friendly cousins.

You may remember that Chief Justice Marshall tied President Jefferson into knots on the power of the judiciary over the executive in determining a dispute over the rights of an otherwise obscure postmaster named Marbury in a case entitled *Marbury v. Madison*. You may also remember, as a story for another day, that President Jefferson also despised his own Vice President, a man by the name of Aaron Burr, who engaged in a lot of political intrigue and had sharpened his political skills in New York while killing Alexander Hamilton in a duel in New Jersey. President Jefferson did not like his Vice President Burr and took the opportunity of one of Burr's more egregious intrigues to have Burr apprehended and prosecuted for treason against the United States only to have the case, by chance, brought before Chief Justice Marshall, sitting as a trial judge on circuit in Richmond. Thomas Jefferson was, of course, further enraged at John Marshall when Marshall refused to convict Aaron Burr of the charge against Burr brought at the insistence of Jefferson.

It also seems that John Marshall continued to prevail over the philosophy of Jefferson and Jefferson's followers by outlasting the Jeffersonians and waiting for the right circumstances and the right cases to decide on the side of a strong federal government.

For example, in 1824, Thomas Jefferson was in retirement at his home, Monticello, two years from his death on the 50th anniversary of the Declaration of Independence that he had written for us and John Marshall was still Chief Justice and presented with a New York State attempt to monopolize certain coastal trade in circumstances that I am certain must have pleased Chief Justice Marshall to address. Some well known New York State entrepreneurs named Livingston and Fulton had been granted by New York State statute the exclusive right to navigate steam boats in New York waters. They had, in turn, assigned their right to navigate between New York City and New Jersey to a man named Ogden. Another man named Gibbons who was navigating these same waters with steamboats that had been enrolled and licensed in the coastal trade under an Act of the United States Congress was enjoined by the New York State courts from continuing to operate in those coastal waters because Mr. Ogden was successor in right to the New York monopoly on that coastal trade afforded Livingston and Fulton.

Chief Justice Marshall rendered the federal decision in the case of *Gibbons v. Ogden* in 1824 by finding and shaping very broad commerce powers of the federal government that he attributed to the United States Constitution and thus, finding that the New York State monopoly law to the benefit of Mr. Ogden and the detriment of Mr. Gibbons was invalid to the extent that it attempted to contravene the commerce power of the federal government. For purposes of our particular story, Chief Justice Marshall said: "All America understands and has uniformly understood the word 'commerce' to comprehend navigation. It was understood, and must have been so understood, when the Constitution was framed. The power over commerce, including navigation, was one of the primary objects for which the

people of America adopted their government, and must have been contemplated in forming {it}."

Arguments against the legal propriety of the federal government engaging in the protection and improvement of the navigable waters of the United States were, therefore, effectively overcome in 1824 by the Supreme Court decision in *Gibbons v. Ogden*. And, in that same year, 1824, Congress started long term employment on navigation improvements for that small corps of Army engineers born at Bunker Hill and subsequently nurtured and educated at West Point.

In 1824, Congress authorized the President to cause surveys, plans and estimates to be made of such "roads and canals as he may deem of national importance, in a commercial or military point of view, or necessary for the transportation of the public mail," and to that end, to employ two or more skillful civil engineers and "officers of the Corps of Engineers". This authority to employ civil engineers was later repealed but the employment of the Army engineers for this purpose continued.

Thus began the history of internal improvements for navigation to be provided to the rivers, canals and harbors by an Army Corps of Engineers and the first 100 years of this history, from 1824 to 1924 is evidenced by hundreds of congressional appropriations for such navigation improvements - contained in individual enactments and in collective or omnibus enactments. There are those today who are troubled by the fact that the Corps sometimes now receives authorizations through appropriation enactments. They might take some comfort in understanding that for the first 100 years of its Civil Works program, the only authorizations that the Corps received were appropriations. Congress appropriated the money for the navigation improvement at issue and the Corps of Engineers did the work.

I speculate that the early 1800s may also have marked the beginning of a generally good and special relationship between the Corps of Engineers and the Congress where the Congress came to trust the Corps as an apolitical, highly efficient, well trained and disciplined agency that was willing to listen and respond to the Congress and would carry out the wishes of Congress when properly expressed.

With the advent of the federal internal improvements also came charges of undesirable investments due to practices attributed to the Congress and styled as log rolling or pork barrel politics. In early partial response to these charges, the Congress created in 1879 a Mississippi River Commission to consist of Corps of Engineers officers and civilians from private life to oversee the planning and reporting of improvements on the Mississippi River and the Congress created in 1902 a Board of Engineers for Rivers and Harbors to consist of Corps of Engineers officers to oversee the planning and reporting of all rivers and harbors improvements.

The Mississippi River Commission is still in existence to perform its statutory review and reporting functions. The Board of Engineers for Rivers and Harbors was abolished a few years ago with the agreement of the Congress and the Executive that the Board had outlived its usefulness. Time will tell on the wisdom of abolishing the Board of Engineers for Rivers and Harbors and the continued viability of the Mississippi River Commission.

Speaking of the Mississippi River, I find it appropriate to note at this point that the history of the Corps of Engineers Civil Works program is certainly a nation wide history of involvement but it is also very much a national history of the Mississippi River. And the Nation, the Corps and the Mississippi River have a special relationship. This special relationship with the Mississippi River might be attributed, at any moment, to the influence of politically astute congressmen from the Mississippi River states but historically this special relationship with the Mississippi River seems attributable to the fact that the Mississippi River was the "nation's highway" for goods and services before the nation had any other national highways. The Mississippi River is huge, our largest river, that drains much of the nation's watersheds and came to be viewed almost as federal property for administration under the Constitutional power of the Congress to rule the property of the

United States.

Be that as it may be on the Mississippi River, the Corps of Engineers has a long and productive history of navigation improvements on the Mississippi and elsewhere throughout the nation - the inland waterways of the United States, big and small; its harbors, big and small. A history of waterways provided by federal statutes and specifying that they should remain free of charge for use by the public and facilitated on the inland waterways with dredging, levees, locks and dams and other features initially at federal expense of the general treasury and more recently funded in some part also by revenues of a tax on diesel fuel of the commercial vessels using these inland waterways, -- the main channels of the harbors of the United States constructed, protected, and maintained by the Corps of Engineers largely at federal expense of the general treasury but with a history of increasing requirements for substantial nonfederal contribution by nonfederal harbor or port authorities and today, with the additional assistance of the revenues of a harbor maintenance tax on the value of goods transported in and out of the harbors.

There is a more recent history of large debate on whether to reconstruct Lock and Dam 26 at Alton, Illinois; whether to impose the diesel fuel tax on vessels using the inland waterways; whether to construct the Tennessee-Tombigbee Waterway; how to dispose properly of the massive amounts of dredged material resulting from the construction and maintenance of the inland waterways and the coastal and Great Lakes harbors; what to do about large and numerous oil and gas pipelines in and on the beds of the inland waterways and harbors of the United States when those interstate pipelines must be relocated due to Corps dredging requirements; and most recently, whether a harbor maintenance tax on the value of goods exported from our harbors is constitutional.

The Corps of Engineers Civil Works program for navigation improvements is historically, the first component and a primary component of the Corps' multiple purpose Civil Works program. However, to find the purposes of that program other than navigation, I have to back up a little bit and next find the other major component of the program which has been flood control.

You will remember that Chief Justice Marshall seemed to say in 1824 in deciding *Gibbons v. Ogden* that the federal government had considerable powers and it was O.K. for the new Corps of Engineers to do navigation improvements. But no one had occasion to ask John Marshall in 1824 whether it would be all right for the federal government to do flood control as a national purpose as well.

Moreover, my historical expert, Professor Arnold, tells me that "Congress passed no legislation that was directly and openly aimed at flood control until 1917 and undertook no nationwide flood control program until 1936." And Professor Arnold posits "several reasons for this. First, the national government's modest resources seemed to preclude federal financing of expensive flood control measures during the 19th century. Second, there were formidable engineering and economic obstacles to flood control by methods other than levees, such as reservoirs. Third, the relatively modest growth of cities along the nation's rivers kept flood damage fairly low until the end of the 19th or the beginning of the 20th century. Finally, many political leaders believed that federal aid for flood control was unconstitutional."

I was not surprised, when I did my research for this presentation, to discover that there was a lot about this program of Corps of Engineers Civil Works that surprised me. My biggest surprise was to learn that as a result of flood control studies on the Mississippi River in the mid 1800s that resulted in the publication of a report entitled the Humphreys - Abbot Report in 1862, the Corps of Engineers did not believe that reservoirs could adequately function for flood control or flood reduction purposes and the Corps maintained this position for over 60 years well into the 1900s. I understood that it took considerable proof to the contrary to convince the Corps that a "levees only" policy for flood control was ill advised and thereby, today, to enable me to talk with you about a national program of flood control that certainly will include levees and flood walls and floodways and local

HQ AR000784

channelization but will also comprehend a large national network of flood control reservoirs.

Be that as it will be, flood control was a relatively late arrival as a companion to the Corps of Engineers program of navigation improvements because well into the 1900s and prior to the ratification of the XVIth Amendment to the Constitution (the federal income tax amendment) the federal government had scarce revenues to spend for flood control; flooding may not have been viewed as a problem; local levees were thought to be the only effective flood control structures imperfect as these local levees nonetheless often proved to be; and the federal government had no legal basis to engage in solutions to local problems like floods.

It is an ill wind that will blow no good for purposes of this presentation and it did flood. I understand that it flooded a lot on the Mississippi then, as it does now. Local interests put a lot of local funding and local efforts into local flood control levees on the Mississippi that proved to be too weak and too little in extent to accomplish their purpose. Moreover, in the late 1800s well into the early 1900s, suspicions abounded outside the Mississippi River area that the Corps of Engineers efforts at improving navigation on the Mississippi comprehended flood control, as well, for local residents and their lands - one man's levee to improve navigation might be viewed as another man's levee to control floods.

If so, and in any instance, federal flood control efforts of the Corps of Engineers were authorized with the passage of the Flood Control Act of 1917 limited to the lower Mississippi River and to the Sacramento River in California and with the passage in 1928 of the beginnings of the great flood control efforts on the lower Mississippi a report titled "Project for Control of Floods in the Alluvial Valley of the Mississippi River and Tributaries by Levees and Channel Rectifications."

The Sacramento River was reported to have been devastated by special circumstances of hydraulic mining in California and please remember that the Mississippi River was our national highway, sort of federal property, where money and authority could often be found when they were lacking for solutions elsewhere in the nation. And there still was no national program of flood control to be carried out by the Corps of Engineers or any other federal agency well into the 1930s for want of federal will, federal means, and federal authority. But also please remember that it will be an ill wind that blows no good for the purposes of this presentation.

I understand that by the late 1900s lots of people and their property were in harm's way of devastating flooding in lots of places other than just on the Mississippi River and the floods came and then sometimes came right back again to repeat their devastation. And, of course, there was another devastating national event in the 1930s that came to be known as the Great Depression.

There was flood devastation, an increasing public demand for national flood control efforts, a Congress that continued to be reluctant or seemed to be unable to provide flood control; there was general economic devastation, and the Administration of Franklin Delano Roosevelt where it was proving to be all right to spend federal money to employ people and fix things toward the goal of national economic recovery.

It seems that two tracks emerged with regard to national flood control efforts in the early 1930s and the Corps of Engineers was on both tracks when one track resulted in the enactment of the Flood Control Act of 1936.

Efforts within the Roosevelt Administration were one track. The Roosevelt Administration employed thinkers who tried to arrive at brilliant solutions to all sorts of national problems. Flood control seemed to become a part of larger solutions for basin wide development of waterways as considered by the Roosevelt Administration and to be studied by interagency task forces and special presidential commissions. Flooding may have been viewed as a problem for federal solution but not the only problem certainly and the flooding solution

would best be synchronized with other solutions for problems like the generation of hydroelectricity, soil conservation, and other related land uses. The Corps of Engineers was a player in these Administration planning efforts but not the only player and undoubtedly not considered the most important in the Administration's hierarchy.

These planning efforts of the Roosevelt Administration may have been brilliant and far sighted but they seemed to be going nowhere at least with regard to national flood control. It seemed that these Administration planning efforts were almost planning simply for planning's sake not to be shared or trusted with the Congress and as if there was a hope that these efforts might somehow result in solutions on their own volition without the assistance of Congress.

Efforts within the Congress toward national flood control were, of course, the other track toward the enactment of the Flood Control Act of 1936. The Representatives and Senators in Congress who had assumed responsibility for enactment of a national flood control program in the early 1930s had serious problems. Their early efforts to enact a program lacked suitable preparation and discipline and suffered embarrassing defeat in congressional debate about pork barrel and ill advised extensions of unauthorized federal power. As I just mentioned, senior officials in the Roosevelt Administration were planning for water resources development but did not seem to be moving in that direction to afford the Congress any assistance that the Congress could shape to a useful bill capable of enactment. President Roosevelt, himself, was, of course, very busy on lots of subjects and while he may not have provided much specific assistance on flood control, he had posited a federal government where it was all right to spend federal money to help people in distress and to fix things.

It also happened to be that 1936 was an election year for the presidency as well as the Congress.

Please also remember that it will be an ill wind that blows no good for purposes of this presentation. I understand that it started to rain on March 9th, 1936 across the northeast and it rained extraordinarily at the same time that there was an extraordinary amount of snow melt from the previous winter's accumulation. The total quantity of resultant water that had to be disposed of ranged between 10 to 30 inches and its disposal came to be known as the great northeastern floods of March 1936, with severe and widespread impacts in New England, Roosevelt's home state of New York, Pennsylvania, Ohio, West Virginia, and onward to Washington, D.C. where all the Potomac River front parks were covered by dirty water, the Lincoln Memorial and Washington Monument had to be sand bagged, and the American Red Cross' administration of national flood relief was threatened because its D.C. Headquarters building was in danger of being flooded.

The New York Times stated in an editorial on March 22, 1936"

"As of yet there are no adequate plans for the prevention of floods and for the associated utilization of excess water. If the floods have taught us anything, it is the need for something more than a dam here and a storage reservoir there. We must think of drainage areas embracing the whole country."

Accordingly, the American public wanted a national flood control program in 1936. It was a big issue in that election year. The time was right, if not overdue, for the enactment of a national flood control program but the Congress seemed to have no credible program to offer. I wonder if we could find someone to help these beleaguered congressman to come up with an appropriate flood control program back there in 1936.

I have previously stated that I believe that the Corps of Engineers and the Congress have generally had a good and special relationship beginning in the 1800s where the Congress trusts the Corps as an apolitical, highly efficient, well trained and disciplined agency that is willing to listen to and respond to the Congress and that would carry out the wishes of Congress when properly expressed.

In 1936, Congress entered extensive discussions concerning flood control with the Corps of Engineers under the leadership of Major General Edward M. Markham, Chief of Engineers, who appears to have been the right person, in the right place, at the right time. General Markham and the Congress also had the particular assistance of an Army Captain named Lucius D. Clay who was to continue to have a remarkable future in the Army and later as General Lucius D. Clay, in the administration and recovery of Germany after World War II.

The Congress asked the Corps of Engineers for assistance in establishing a national flood control program in 1936 and General Markham and Captain Clay were ready with what the Congress needed.

Eleven years earlier, in 1925, the House Rivers and Harbors Committee had suggested that the federal government examine the cost for a detailed survey of the navigable waters of the United States and report back to Congress with that cost estimate. The Corps of Engineers replied to Congress' request in 1926 that the Corps could survey more than 180 rivers and their tributaries for \$7.3 million. That reply of the Corps to Congress was published as House Document 308 of the 69th Congress. The Congress was favorably impressed and began to fund the surveys that the Corps had suggested. The resulting reports of survey, thereafter, came to be known as "308 reports."

Anyone who knows the term "308 reports" as a result of this presentation knows the origins of many of the Corps of Engineers Civil Works projects over the past 60 years and gets a gold star if they remember this fact.

General Markham and Captain Clay, therefore, could present to requesting Congressmen in 1936 a report prepared by the Corps of Engineers entitled "Projects for the Development of Rivers and Harbors, Summarized From Reports by the Corps of Engineers to Congress". This report was then commonly called the "Green Book" and listed 1600 potential projects for flood control, navigation, irrigation, and hydroelectric power at an estimated total cost of \$8 billion. Most of these project recommendations resulted from the 308 reports. These projects also provided ample evidence that the Corps of Engineers had come to believe in reservoirs for flood control.

The Congress selected from this list of Corps of Engineers recommendations flood control projects with favorable cost-benefit ratios attributable to flood control and then added a few more projects for the then devastated northeast, all at the estimated cost of \$400 to \$500 million. All proposed reservoirs with significant hydroelectric power benefits were excluded from the proposal and no hydropower was to be developed at the projects proposed although the bill would allow the construction of hydroelectric infrastructure (penstocks) at flood control dams having hydroelectric potential in the event that the addition of hydropower at the dams was later authorized.

I will talk more about hydropower later in the presentation. Suffice it for the moment to note that there was no hydropower authorized for development by the Corps of Engineers at its flood control projects in 1936.

But what about the long standing concerns that national flood control would be unconstitutional?

I noted earlier that Thomas Jefferson advocated that each branch of the federal government should judge for itself its own sphere of action and his nemesis, John Marshall, had opined that the enumerated powers of the federal government were broad in scope. Well, the Congress took the best of this advice from these disparate gentlemen and brought it together in a declaration of policy in Section 1 of the Flood Control Act of 1936. Congress decided the constitutional issues of national flood control and decided them on broad multiple assertions of power. Congress declared that destructive floods are a threat to commerce between states, they impair and obstruct navigation, and that flood control is a proper activity of the Federal Government in cooperation with States and their political

subdivisions and localities, in the interest of the general welfare. Therefore, protecting commerce in general, protecting navigation in particular, and providing for the general welfare were good enough powers for national flood control in 1936 and have remained good enough to the present.

But what about the concerns that a national flood control program would result in unjustified, ill advised, pork barrel projects. The Congress addressed these concerns by also specifying in its 1936 declaration of flood control policy that federal flood control projects should be only those projects where "the benefits to whomsoever they may accrue are in excess of the estimated costs, and if the lives and social security of people are otherwise adversely affected." Congress further specified that such federally justified flood control projects would only be constructed if states or local governments agreed to support the projects at significant nonfederal expense and specifically

- provide cooperation that came to be known as the a b c's of local cooperation
- provide without cost to the United States all lands, easements, and rights-of-way necessary for the construction of the project;
- hold and save the United States free from damages due to the construction works and;
- maintain and operate all the works after completion.

Then, to further insure the integrity of the federal flood control projects Congress provided that the projects should be under the jurisdiction of and prosecuted by the War Department under the direction of the Secretary of War and the supervision of the Chief of Engineers.

The Flood Control Act of 1936 was enacted by Congress and then sent to the President on June 15, 1936 for his approval. President Roosevelt was then already receiving some very strong adverse advice about this bill from his closest advisors such as the bill is "thoroughly rotten"; it included a number of "pork barrel" projects that were still being studied by various federal agencies and might prove to be unsound. At one point Roosevelt's advisors even found an "intrusion of the War Department into the picture" that might set a "dangerous precedent." Roosevelt was also aware, however, that the bill had overwhelmingly passed both houses of Congress and he was receiving a lot of telegrams of support, particularly from New York State.

President Roosevelt signed the Flood Control Act of 1936 on June 22nd, 1936, without ceremony, and turned to his reelection that fall. General Markham was also busy. With White House approval, General Markham was expanding the Corps of Engineers to address the huge new program that would serve over the next 60 years to result in numerous flood control levees, flood walls, flood channels, flood ways, and yes, flood control reservoirs, lots of flood control reservoirs throughout the nation.

It is noteworthy information for anyone who may want another gold star from this presentation that the nonfederal cooperation that was required for federal flood control projects in the 1936 Act was reoriented quickly thereafter. Remember that the Congress required the a b c's of local cooperation for flood control at all federal projects, big and small.

I understand that it soon became evident to the Corps of Engineers and the Congress that identifying and signing up the nonfederal public beneficiaries of federal flood control reservoirs that provided wide spread benefits was proving too difficult to determine and to effect. Quite simply, the Corps was having trouble finding the right beneficiaries with the right money to support big flood control projects. Coincidentally, the Roosevelt Administration did a quick review of the 1936 Act after its approval and discovered a different reason for not liking its requirements of nonfederal sponsorship of the federal reservoir projects at issue.

The Roosevelt Administration believed in the potential for rural electrification with

hydroelectricity provided by the federal government from federal reservoirs and pursuant to some other stories, Roosevelt had already had some success toward this end in the enablement of the then existing Tennessee Valley Authority and the enactment of the federal construction of the Grand Coulee and Boulder (Hoover) Dams in the West. The Roosevelt Administration wanted the potential for federal development of hydropower at the Corps reservoirs to be constructed but formed the opinion that the a b c's of local cooperation at Corps reservoirs would mean that the sponsoring state or local governments, rather than the federal government, would end up owning the reservoirs and dams even when they were to be provided at great federal expense. Therefore, the Roosevelt Administration was very concerned that no federal hydropower could subsequently be developed at these reservoirs.

Congress quickly solved these real or perceived problems of local cooperation by an enactment in 1938 that repealed all requirements of local cooperation for all flood control purposes at all Corps of Engineers projects, big and small. Congress also specified in that enactment that the federal government would own the project lands. Congress, thereafter, determined that it had gone too far in exempting small local flood protection projects from the a b c's of local cooperation just to solve problems with big projects.

Accordingly, Congress, in a few years, reenacted the a b c's of local cooperation requirements for small local flood protection projects and that established the bifurcated world of local cooperation requirements for federal flood control until 1986 - large flood control, all federal expense, no local cooperation required; small flood control, construction at federal expense but a b c's of local cooperation required.

Since the enactment of the Water Resources Development Act of 1986, the federal government has returned to local cooperation requirements for all federal flood control projects regardless of structure or dimension and with the addition of requirements for local cash contributions toward construction costs not previously required. You will now be able to earn your gold star if you remember that rather twisting path to local cooperation for federal flood control.

It is also very important to know that the Corps of Engineers has been enabled in one form or another since 1948 a broad discretionary authority to use its existing resources to anticipate floods, fight floods, and aid in immediate flood recovery and reconstruction of damaged flood control works. This Corps emergency flood fighting authority together with the assistance that the Corps may provide the Federal Emergency Management Authority, under FEMA authority, during presidentially declared natural disasters has enabled the Corps to be in the forefront of federal assistance during times of flood, hurricane, earthquake, and volcanic eruption.

So, there was an American Revolution and the good guys won; there was a struggle over federal navigation improvements and the improvements won; there was a struggle over federal flood control and the flood control won; and World War II brought us out of the Great Depression but face to face with World War II where many domestic programs, such as the Corps of Engineers Civil Works program, were primarily held in abeyance to enable the Nation to concentrate on winning that great war. Then came 1944 and clear evidence that the good guys would win World War II. Congress was ready for post war development that will enable us quickly to add some new dimensions or purposes to the Corps of Engineers Civil Works development program that was then, in 1944, premised on its navigation and flood control purposes.

An act authorizing the construction of certain public works in rivers and harbors for flood control and other purposes was approved in December 1944. It is popularly known as the Flood Control Act of 1944. It launched post war development for the Corps of Engineers Civil Works program and expanded the program to its approximate dimensions for the past 50 years.

There had been a debate within the Congress, the Executive, and with other affected interests as to whether the Corps of Engineers program would expand west of the 98th

meridian to the 17 western states that had been the exclusive domain for federal water resources development for reclamation and irrigation of the Department of Interior's Bureau of reclamation since 1902.

The Flood Control Act of 1944 determined that the Corps of Engineers would have projects in the West provided that the Corps coordinated its Western proposals with the affected states and the Department of Interior and did not employ its navigation powers to the detriment of beneficial consumptive uses of water in the West. Moreover, the Corps was even authorized to include storage for irrigation water in its western reservoirs provided that Interior managed the resultant irrigation water pursuant to Federal Reclamation law.

This expansion of the Corps of Engineers program to the West has put the Corps squarely into issues of American Indian law and issues of western water law, including, ironically, the Corps in the middle of the most recent large debates, court decisions, and congressional enactments on the requirements and proper dimensions of Reclamation law governing Interior's program. This was because those recent issues were engendered by a contest over Reclamation law that focused initially on irrigation water provided from a Corps lake in California named Tulare.

The Flood Control Act of 1944 further provided that the Army could sell surplus water from any of its reservoirs, wherever situated, for domestic and industrial purposes and on terms that the Army determined to be reasonable. This was probably a well intended authority that seems to have been little used except possibly, for small transactions in water because perhaps, surplus water is not a very reliable source upon which to premise nonfederal capitol investments in expensive pumps and pipes to provide the water for intended water supply beneficiaries. Accordingly, the Congress subsequently enacted the Water Supply Act of 1958 to enable the Corps of Engineers and the Bureau of Reclamation each to provide and sell water supply storage at their respective reservoirs, wherever situated, to states and local interests for municipal or industrial water supply.

Accordingly, the Corps can and does provide water supply storage for municipal or industrial purposes at its reservoir projects in return for nonfederal reimbursement of the federal capitol and operation expenses of providing the water supply storage and locals provide and pay for their own water treatment, pumps, and pipes necessary for delivery of the water in a usable state to local water supply beneficiaries.

You will earn another gold star by not confusing the national water supply storage program that I just mentioned with the authority of the special program that enables the Corps of Engineers, in cooperation with the District of Columbia and suburban Northern Virginia, currently to provide treated water to the District of Columbia and some of the Virginia suburbs. This special authority of the Corps Washington Aqueduct Division originated in the mid 1800s and was intended to make the Corps the water supplier for what was then known as "the federal city." This special authority thus has a long history, it's proven controversial on occasion, and it is its own story still being written as evidenced periodically in the local newspapers.

Just remember for your gold star that the Corps of Engineers nationally provides and sells water supply storage at its reservoirs but it does not provide water treatment, pipes, or pumps.

What about outdoor recreation for postwar America at Corps of Engineers reservoirs. The Flood Control Act of 1944 said yes to outdoor recreation at Corps reservoirs. It specified that the water areas of Corps reservoirs were to remain generally open to the recreating public at no admission charge and the Corps could provide parks at its reservoirs at federal expense or lease the federal lands at its reservoirs to local governments, at no charge if they wished to construct their own parks on those lands. Thereafter, the federal government took a more extensive look at federally provided outdoor recreation facilities and in 1965, pursuant to the Federal Water Project Recreation Act, the Corps was further

enabled to recommend outdoor recreation as a purpose at its projects and to develop that recreation provided that local interests paid for 50 percent of project costs that could be solely attributed to that recreation development and that local interests administered the resultant recreation areas.

Accordingly, the Corps of Engineers has been enabled, in one form or another, to provide or provide for outdoor recreation at its Civil Works projects since 1944. While there has been debate over the past 20 years on the advisability of the federal government's continued participation in this sort of outdoor recreation, be assured that there continue to be scores of outdoor recreation facilities and parks at Corps reservoirs and other water resources projects throughout the nation and they support high visibility, heavy visitation by an American public that often times, and happily enough, best knows the United States Army through its use of Corps of Engineers parks.

But here we are in 1944 and we have been curious as to whether the Corps of Engineers would ever be enabled to develop the potential for the generation of hydroelectricity that existed or would exist at many of its reservoir projects throughout the nation. You will remember that this was an authority specifically withheld in the enactment of the Flood Control Act of 1936. Private power companies and some congressmen who paid close attention to them were strongly opposed to the generation of electricity by the federal government at federal reservoirs for ultimate use of the consuming public. They viewed this as an unwarranted federal intervention in the private sector and as unlawful federal competition with the private sector and the private power companies in 1936 were still fighting the propriety of what they viewed then as a terrible aberration known as the Tennessee Valley Authority and that had been established earlier through the efforts of the Roosevelt Administration and some like minded congressmen.

Private power thus kept the lid on the Corps of Engineers' potential to develop hydropower at Corps reservoirs enabled in 1936. The private power companies were also determined to slay the TVA dragon in the courts in cases variously styled *Ashwander v. Tennessee Valley Authority* and *Tennessee Electric Power Company v. Tennessee Valley Authority* decided respectively in 1936 and 1939.

Chief Justice Marshall would have been very proud of his Supreme Court had he been there for the decisions in *Ashwander* and *Tennessee Electric Power Company* and even Thomas Jefferson might have found some comfort in the fact that it appeared that small family farms and other interests in rural America were probably going to get some very cheap electricity compliments of the federal government.

The Supreme Court first found in the case of *Ashwander* in 1936 that the power of falling water naturally resulted from the construction of a federal dam. "That water power came into the exclusive control of the Federal Government and when converted into electrical energy could be disposed of as property of the United States pursuant to the property clause of the U.S. Constitution. The Supreme Court next found in the case of the *Tennessee Electric Company* in 1939 that a federal statute might only be challenged to protect a legal right and that the plaintiff private utilities had no legal right to be free from competition from the federal government.

In preparing for this presentation, I enjoyed revisiting the 1936 and 1939 decisions in the cases of *Ashwander* and *Tennessee Electric Co.* where the federal government prevailed in the legal battles over federal hydroelectricity. The strengths of the victories of these decisions for the federal government at this stage in the "New Deal" of the Roosevelt Administration reminded me that FDR's program was pounded by the Supreme Court in its early stages. You may remember that FDR then openly speculated on packing the Supreme Court with additional justices to the nine justices then sitting to get enough justices who might act favorably to the New Deal in their rulings. You may also remember that shortly thereafter, the Supreme Court seemed to change its legal philosophy to rule more favorably on government actions and the Courts' change to support FDR's program was popularly known as "a switch in time saved nine". The decisions in *Ashwander* and *Tennessee*

Electric Co. look to me like classic examples of that "switch in time".

The Flood Control Act of 1944 did provide authority for the Corps of Engineers to generate hydroelectricity at Corps of Engineers reservoirs provided that the power generated would be transferred to federal regional power authorities who, in turn, would transmit the power to nonfederal public or private power companies for ultimate distribution and all at federal rates to recover for the federal government its capitol investment and operational costs of providing the electricity.

I think that it is fair to say that, thereafter, the Corps of Engineers becomes a preeminent developer of much of the hydroelectricity that is provided in many regions of this country.

I will also briefly mention some other important Corps undertakings that have their own considerable history.

There has been and continues to be considerable erosion damage to property on the shorelines of the United States due to seemingly inevitable natural processes. Whether it is wise to invest federal money and efforts toward protecting shoreline property from erosion due to these natural processes has been and remains of considerable debate. Be that as it may be, the Corps of Engineers has been enabled, in one form or another, since as early as 1930 and most notably since the 1940s to study, report, and attempt to try to control shoreline erosion at various locations on the shores of the United States and pursuant to nonfederal cost sharing requirements dependent on the public or private character of the shorelines protected. The Corps similarly has been granted various authorities to protect low lying coastal areas from wind driven coastal floods or hurricanes and also assists in streambank erosion control on inland streams.

So there we have it - a multiple purpose Civil Works development program of the United States Army Corps of Engineers evolving and developing over the past 170 years and currently consisting of navigation improvements, flood control or flood reduction, hydroelectricity, storage for municipal and industrial water supply, storage for irrigation, outdoor recreation, shoreline erosion and stream bank erosion protection. And by the way, if your waterways happen to be choked with noxious weeds, the Corps might even have the authority to help you clear out the weeds.

But let me conclude this presentation by very briefly noting the important issue of nature, fish and wildlife, and the natural environment as it relates to the Corps of Engineers Civil Works development program.

You have kindly allowed me to talk to you for the past hour about purposes of a national Civil Works development program. I think it important to note now a distinction between purposes and costs, however important those costs may be. It is not a purpose of the Corps of Engineers Civil Works Development Program to harm wildlife, its habitat, or any broader natural environment. However, to the extent that the Civil Works development program has threatened or harmed wildlife or the natural environment, there is a considerable history over at least the last 50 years where the Corps has learned, sometimes painfully, but seemingly, well, to avoid or mitigate for such adverse environmental effects pursuant to statutes such as the Fish and Wildlife Coordination Act, the National Environmental Policy Act, Endangered Species Act and the Clean Water Act and pursuant to good environmental practices that seem today to be emerging as an actual purpose or new additional mission for the Corps; a purpose of the environment and a mission of environmental engineering - helping to protect and restore the natural environment from all the progress we have otherwise made since Bunker Hill.

HQ AR000793-HQ AR000846



**The Natural Resources  
Management Branch**

---

**THE VISITOR ASSISTANCE SURVEY**

**An Evaluation of Safety at Corps Recreational Projects**

U.S. Army Corps of Engineers  
Resources

June 1996

11

Institute for Water

IWR REPORT 96-R-

HQ AR000793



**The Natural Resources  
Management Branch**

---

“It is the policy of the Corps of Engineers to provide safe and healthful recreation opportunities while protecting and enhancing project resources. The protection of facilities or the enforcement of rules will always be secondary to the safety of Corps personnel and visitors. Resource managers and rangers will strive to be visible to the public, primarily to help and assist them, and secondarily, to enforce 36 CFR Chapter III, Part 327 (Title 36). In no case will this enforcement portray an aggressive law enforcement image...”

Regulation No. 1130-2-420, #5, “Project Operation,  
VISITOR ASSISTANCE PROGRAM”, November 1, 1992

The Visitor Assistance Survey  
Preface

---

## PREFACE

This report was prepared for the Executive Office, Natural Resources Management Branch (NRMB) of the U.S. Army Corps of Engineers (COE). Supervision was provided by Dr. Mark Dunning of the COE, Water Resources Support Center (WRSC), Institute for Water Resources (IWR), Program Analysis Division (PAD). Mr. Darrell Lewis, Chief of NRMB (CECW-ON), Mr. Dave Wahus and Mr. Steve Austin of NRMB were technical monitors for Headquarters, COE.

Ms. Kenya Covington, Social Scientist (CEWRC-IWR-A), was the principal author while serving under a temporary appointment. Mr. Richard Whittington, Environmental Planner (CEWRC-IWR-A), contributed to questionnaire design and write-ups of Drafts I and II. Ms. Karla Allred, Co-op student from George Washington University completed a content analysis on several open-ended questions. Mr. Steve Austin provided critical assistance in editing the questionnaire, and continuous assistance in the completion of the study.

The authors are grateful to the following individuals for reviewing the preliminary drafts of this report and providing valuable comments and suggestions for improvement: Steve Austin (CECW-ON), Mark Dunning, Ph.D. and John Singley, Ph.D. (CEWRC-IWR-A), William Hansen (CEWRC-IWR-R), and Roger Hamilton (CEWES-EN-R).



---

---

## TABLE OF CONTENTS

|   | <u>Page</u> |
|---|-------------|
| PREFACE . . . . .                                       | iii         |
| TABLE OF CONTENTS . . . . .                             | v           |
| LIST OF TABLES . . . . .                                | vi          |
| LIST OF FIGURES . . . . .                               | ix          |
| EXECUTIVE SUMMARY . . . . .                             | xi          |
| Introduction . . . . .                                  | xi          |
| Survey Objectives . . . . .                             | xi          |
| Findings . . . . .                                      | xiii        |
| CHAPTER 1 - PURPOSE AND OVERVIEW . . . . .              | 1           |
| Introduction . . . . .                                  | 1           |
| Survey Objectives . . . . .                             | 2           |
| Research Methods . . . . .                              | 2           |
| CHAPTER 2 - PERCEPTIONS OF SAFETY . . . . .             | 7           |
| NRMB Personnel Safety . . . . .                         | 7           |
| Visitors Safety . . . . .                               | 10          |
| Alcohol . . . . .                                       | 11          |
| Modifications   |             |
| CHAPTER 3 - PERCEPTIONS OF VISITOR ASSISTANCE . . . . . | 17          |
| CHAPTER 4 - EQUIPMENT . . . . .                         | 21          |
| Communication Equipment . . . . .                       | 21          |
| Surveillance Equipment . . . . .                        | 22          |
| Personal Protection Equipment . . . . .                 | 22          |

The Visitor Assistance Survey  
Contents

Table of

---

|  |    |
|--|----|
| CHAPTER 5 - LAW ENFORCEMENT AGREEMENTS ..... | 27 |
| CHAPTER 6 - TRAINING .....                   | 29 |
| Knowledge and Skills .....                   | 29 |
| Course Work and Training .....               | 29 |
| CHAPTER 7 - MANAGEMENT and RESOURCES .....   | 35 |
| Management Concerns About Safety .....       | 35 |
| Support Resources .....                      | 36 |
| CHAPTER 8 - CONCLUSIONS .....                | 37 |

**LIST OF TABLES**

| <u>Table</u>  | <u>Page</u> |
|---|-------------|
| Table 2-1 Respondents Characterize Corps Staff Safety . . . . .                               | 8           |
| Table 2-2. Ranking Importance of Contributing Factors to Incidences Involving Rangers . . . . | 10          |
| Table 2-3. Corps Personnel Characterize Visitor Safety . . . . .                              | 11          |
| Table 2-4. Ranking Importance of Contributing Factors for Incidences Involving Visitors . . . | 12          |
| Table 2-5. Ranking Modifications to Gate Attendant Safety . . . . .                           | 14          |
| Table 2-6 Traffic Modifications Importance Ranking . . . . .                                  | 14          |
| Table 2-7 Ranking Overall Safety Concerns . . . . .   | 15          |
| Table 3-1 Visitor Assistance Program by Division . . . . .                                    | 19          |
| Table 3-2 Public Relations Plan by Division . . . . .   | 19          |
| Table 4-1 Importance Ranking of Communication Equipment . . . . .                             | 21          |
| Table 4-2 Importance Ranking of Surveillance Equipment . . . . .                              | 22          |
| Table 4-3 Importance Ranking of Personal Protection Equipment . . . . .                       | 23          |
| Table 5-1 Law Enforcement Agreements by Division . . . . .                                    | 28          |
| Table 6-1 Skills Ranked in Importance by Managers and Rangers . . . . .                       | 29          |
| Table 7-1 Ranking Adequacy of Support Resources . . . . .                                     | 36          |

The Visitor Assistance Survey  
Contents

Table of

**LIST OF FIGURES**

| <u>Figure</u> | <u>Page</u>   |
|---------------|---|
| Figure 1-1    | Percentage of Personnel in Each Employment Category . . . . . 6                       |
| Figure 1-2    | Age Distribution of Participants . . . . . 6  |
| Figure 1-3    | Ethnic Background of Survey Respondents . . . . . 6                                   |
| Figure 2-1.   | All Survey Respondents Rated How They Perceived Their Safety . . . . . 7              |
| Figure 2-2    | Survey Participants Rated How They Perceived Their Safety . . . . . 7                 |
| Figure 2-3    | Verbal Abuse Against Respondents Within the Last Three Years . . . . . 9              |
| Figure 2-4.   | Number of Physical Threats Against Respondents Within the Last Three Years . . 9      |
| Figure 2-5    | Importance of Ethnic Differences Contributing to Incidents Against Rangers . . . 10   |
| Figure 2-6    | Number of Incidents of Verbal Abuse, Physical Threats and Assaults on Visitors 11     |
| Figure 2-7    | Alcohol Related Incidents Involving Respondents Within the Last Three Years . 12      |
| Figure 2-8    | “Alcohol should be allowed at Corps Projects” . . . . . 13                            |
| Figure 2-9    | “Prohibition of alcohol at Corps projects would increase overall safety” . . . . . 13 |
| Figure 3-1    | Perceived Public’s View of Corps Natural Resources Field Personnel . . . . . 17       |
| Figure 3-2    | Public Views of Class A and Class B Uniforms . . . . . 18                             |
| Figure 3-3.   | Respondents Knowledge of a Visitor Assistance Program . . . . . 18                    |
| Figure 3-4    | Respondents Knowledge of a Public Relations Plan . . . . . 18                         |
| Figure 4-1    | Blood Borne Pathogen Protection . . . . . 22  |
| Figure 4-2.   | Mace/Pepper Spray . . . . . 23  |
| Figure 4-3    | Bulletproof Vests . . . . . 23  |
| Figure 4-4    | Importance of Equipment by Division . . . . . 24                                      |
| Figure 4-5    | Managers Rate the Sufficiency of Equipment . . . . . 25                               |
| Figure 4-6    | Rangers Rate the Sufficiency of Equipment . . . . . 25                                |
| Figure 5-1.   | Adequacy of Agreement . . . . . 27  |
| Figure 5-2    | Is the service received as a result of the agreement adequate? . . . . . 27           |
| Figure 5-3    | Are there problems contacting law enforcement agencies? . . . . . 28                  |
| Figure 6-1    | Visitor Assistance Basic . . . . . 30   |
| Figure 6-2    | Advanced Visitor Assistance Course . . . . . 30                                       |
| Figure 6-3    | Personal Protection Course . . . . . 30   |
| Figure 6-4    | Refresher Visitor Assistance . . . . . 31   |
| Figure 6-5    | Visitor Assistance Update . . . . . 31  |
| Figure 6-6    | Is there a need for additional ranger training courses? . . . . . 32                  |
| Figure 6-7    | Training Courses that Consider the Public and Societal Problems . . . . . 32          |
| Figure 6-8    | The four most frequently requested training course topics . . . . . 34                |
| Figure 7-1    | Managements Concern With Safety . . . . . 35  |
| Figure 7-2    | Supervisors Listen . . . . . 35   |

The Visitor Assistance Survey  
Contents

Table of



---

---

## EXECUTIVE SUMMARY

### Introduction

The U.S. Army Corps of Engineers (COE) lakes, dams and reservoirs, and other projects, today are among the most heavily visited public recreation sites in the country. It is estimated that nationally Corps projects receive more than 400 million visitor days annually. The Visitor Assistance Program that currently oversees visitor use of Corps projects was first conceived in 1970 with the implementation of Cumberland Lake pilot program. The major objective of this program is to ensure that visitors to Corps facilities have a safe and enjoyable experience. The program is managed by the Natural Resources Management Branch (NRMB) of the Operations, Construction and Readiness Division of Civil Works (CECW-ON), and employs more than 1,800 personnel who are located on-site at Corps projects to provide visitor assistance services.

As public visitation pressure has grown at Corps facilities, the NRMB has become increasingly concerned about public safety and the safety of the Corps NRMB personnel who administer the Visitor Assistance Program on-site. The issue of safety was most recently investigated in Southwestern Division (SWD) where a survey was administered to the SWD NRMB workforce. This survey provided information on the perceptions of the SWD workforce; however, NRMB concluded that a broader look was needed to arrive at nationally representative conclusions. As a result, NRMB requested that the Institute for Water Resources (IWR) conduct a national survey of

the NRMB workforce on the issue of safety.

The purpose of this study is to shed some light on safety concerns voiced by NRMB personnel. IWR created and administered the questionnaire to elicit representative data upon which NRMB management could make decisions.

### Survey Objectives

The Visitor Assistance Survey had six research objectives:

1. To identify NRMB personnel perceptions about safety at Corps projects;
2. To identify the general perceptions of NRMB personnel about the Visitor Assistance Program at Corps projects as the perceptions relate to safety;
3. To obtain the opinions of NRMB personnel on the importance and sufficiency of various equipment as the opinions relate to safety;
4. To obtain NRMB personnel views on the adequacy of law enforcement at Corps projects as the views relate to safety;
5. To obtain NRMB personnel views on important skills and various training courses as the

views relate to safety;

6. To seek opinions from NRMB personnel on management concerns and the adequacy of support resources as the opinions relate to safety.

### Population and Survey Administration

The population surveyed in this study included NRMB personnel, except administrative, clerical, and maintenance staff. The survey population mainly consisted of rangers, managers, and other professional personnel such as: outdoor recreation planners, environmental protection specialists, foresters, etc. Approximately 1,893 individuals made up this population at the time of survey. Surveys were mailed directly to each individual using a mailing list provided by NRMB. A cover letter was included which explained the purpose of the survey and a guarantee of anonymity. Participants who completed the survey were asked to return the surveys directly to IWR for data entry. A week after the initial mailing, a follow-up post card was mailed out reminding participants to complete and return their surveys if they had not already done so. A total of 1,267 surveys were returned for a response rate of 67 percent. This is a relatively high response rate for a mail out survey and suggests a high level of interest among NRMB personnel on the topic.

### Questionnaire

The instrument used for this study was designed to address the research objectives

previously identified. The survey consisted mostly of closed-ended questions, but open-ended questions were also asked. The questionnaire was developed in consultation with IWR and NRMB staff. Appendix A contains a copy of the questionnaire and Appendix B shows the frequency of responses for each question.

### Description of Data

An overview of the biographical responses to the survey showed that 68 percent of respondents worked as rangers, 22 percent were employed as managers, and 10 percent held positions in professional areas stated above (see Figure 1<sup>1</sup>). The grade levels of respondents ranged from GS-4 through SES, with GS-9 through GS-11 being the most common grade levels at 60 percent. Overall, 83 percent of the respondents were male and 17 percent female. Most of the respondents (38%) were within the 36-45 year age range (see Figure 2). The vast majority of respondents of this survey were Caucasian (92%). Of the remaining groups the highest representations were African Americans (2.5%), Native Americans (2.3%), Hispanics (0.7%), Asians (0.3%), and others (2.0%) (see Figure 3). Nationwide, 90 percent of the respondents had citation authority; that is, authority given to rangers and natural resource specialists allowing administration of tickets signifying violation(s) of Corps projects' rules and regulations.

---

<sup>1</sup>Tables and Figures referenced in this Executive Summary appear in the main report.

## Findings

### PERCEPTIONS OF SAFETY (Chapter 2)

Managers, rangers, and professional employment categories show some differences in perceptions of their personal safety. Managers overwhelmingly perceived their safety as good (76%), while only half (51%) of rangers reported safety as good. A grand total of 49 percent of rangers (402 respondents) characterized their safety as fair to poor, once again in contrast to 25 percent of managers.

Besides perceived safety at Corps projects, the perception of change in personal safety was examined. The three possible levels used to describe perceived change in safety were “increasing,” “decreasing,” and “staying the same.” Managers typically described their safety as “staying the same.” Professional personnel revealed similar perceptions with 56 percent indicating their safety as “staying the same.” On the other hand, rangers clearly characterize their safety differently. Rangers typically described their safety as “decreasing” with 50 percent reporting this direction of change.

Within the last three years, of 813 rangers that responded, 507 (62%) rangers indicated that they experienced between 1-10 incidents of verbal abuse (see Figure 6). Although, physical threats were perpetrated against rangers at a less frequent rate than verbal abuse, 373 respondents (46%) reported

between 1-10 incidents of physical threats. Of the 813 rangers responding, 94 (12%) said that they had been physically assaulted at least once over the last three years.

In the last three years, 430 rangers (53%) witnessed between 1 and 10 incidents where a visitor verbally or physically threatened another visitor (see Figure 9). Almost 200 rangers (23%) say that they have witnessed more than 20 incidents in which visitors displayed some “hostile behavior” toward another visitor. A factor that many project staff considered a main contributor to “hostile behavior” was alcohol use.

In search of a more complete picture of the impact of alcohol, we asked: “What is the average number of alcohol-related incidents that you have been directly involved with at your project within the last three years?” In the last three years, out of 1,138 respondents, 482 (42%) answered that they had been directly involved with an alcohol-related incident at least 1 to 10 times (see Figure 10). Almost 30 percent revealed that they were directly involved with alcohol-related incidents more than 20 times in the last three years (see Figure 10).

Views about whether alcohol should be allowed or prohibited were solicited. Forty percent of the respondents disagreed that “alcohol should be allowed at Corps projects,” (see Figure 11). There was also a second statement, “prohibition of alcohol at Corps projects would increase overall safety,” the popular response was overwhelming (see Figure 12), of 1,248 project staff, 72 percent agreed with the statement (893 respondents).

### **PERCEPTIONS OF VISITOR ASSISTANCE (Chapter 3)**

The perceived public image of rangers as seen by survey participants is a dual role of law enforcement officer (badge toting authority figures) and visitor assistant (service oriented and helpful to visitors) with little distinction between the two. As shown in Figure 13, responses were low at opposite poles of the scale indicating “John Law” (law enforcement personality) and “Good Guys” (visitor assistance personality). Responses fell most frequently in the middle of the scale, therefore signaling ambiguity in how Corps personnel believe visitors view them.

Many respondents reported they were aware of a Visitor Assistance Program at their project. Overall, of 1,144 responses to this question, 90 percent said they were aware, 5 percent said they were “uncertain,” and 5 percent said “no” they were not aware of a Visitor Assistance Program (see Figure 15). Although the Public Relations Plan is a component of the Visitor Assistance Program, fewer respondents were aware of such a plan. Only 52 percent reported knowledge of a Public Relations Plan, and while a very small percentage were unsure whether a Visitor Assistance Plan existed, more persons (26%) were unsure concerning the presence of a Public Relations Plan (see Figure 16).

### **EQUIPMENT (Chapter 4)**

Communication equipment was generally considered important equipment for use on the job by all positions. Managers and rangers responded similarly to the importance of nine different types of communication equipment. Mobile vehicle radios ranked the highest, while law enforcement communication links followed (see Table 10). This equipment is perceived as necessary to carry out daily duties and more important, to fostering safety at Corps projects.

Surveillance equipment is seen as useful to enhance field personnel monitoring capabilities, plus detecting crises at various Corps projects. Specifically, the items are polaroid cameras, 35mm cameras, video cameras, vehicle light bars and alarms. Only two items were considered overwhelmingly important, these were the polaroid cameras and 35mm cameras. Of these items, polaroid cameras appeared most important among managers and rangers (see Table 11).

In this study, personal protection equipment refers to equipment used to protect personnel from potentially life threatening situations during official duty. Of all the protective equipment, overwhelmingly, blood borne pathogen protection was seen as the most important (see Figure 17). Following in importance, as suggested by respondents were mace/pepper spray and bulletproof vests.

The sufficiency of equipment refers to the overall adequacy of the current supply of equipment. Overall, more managers responded that equipment was sufficient. Forty six

percent of the managers responded that equipment supplies were sufficient, while 35 percent stated that it was not (see Figure 21). In contrast, only 30 percent of the ranger population stated that equipment was sufficient, while 48 percent stated that it was not (see Figure 22).

### **LAW ENFORCEMENT AGREEMENTS** (Chapter 5)

Several questions were asked of participants concerning the presence of law enforcement agreements, the adequacy of agreements, and problems encountered contacting law enforcement agencies. Overall, out of 881 responses to the question, “Do you have an agreement at your project?”, 78 percent said “yes,” 19 percent said “no,” and 3 percent were “uncertain.” Agreements were perceived to be a combination of very adequate and adequate by 58 percent (see Figure 23). Most respondents considered service provided by law enforcement agencies under the agreements adequate (see Figure 24). In addition, 30 percent of respondents said that they “did have trouble contacting law enforcement authorities” (see Figure 25).

### **TRAINING** (Chapter 6)

Both managers and rangers responded similarly; however, rangers on average felt stronger about specific skills than did managers. The five most perceived important skills as indicated by managers and rangers were communication, public relations, conflict management, title 36 rules and regulations, and water safety (see Table 14). These skills

were perceived as important by at least 85 percent of respondents. The lowest ranking skill in importance to respondents was crowd control.

The most basic of the courses, Visitor Assistance Basic, received the most ratings of “F” as compared with the other courses (see Figure 26). Managers rated this course failing more frequently than did rangers and professional personnel. The Advanced Visitor Assistance course appears to tell a different story; most responses were within “B” and “C” ratings. Managers, rangers, and professional personnel felt similarly about the course. The Personal Protection Training course distribution of ratings looks similar to the previous course (see Figure 28), again, most of the responses indicated ratings of “B” and “C.”

The Refresher Visitor Assistance Training course rating distribution shows differences in opinions among managers, rangers, and professional project personnel (see Figure 29). Managers most frequently rated this course a “C”. Rangers and professional personnel had the greatest number of “A” and “B” ratings for this course. The Visitor Assistance Update course (see Figure 30) responses illustrate that most frequently rangers and professional personnel rated the course a “B”, while managers’ responses did not cluster in any letter grade.

## MANAGEMENT AND RESOURCES (Chapter 7)

More than 50 percent of all employment groups agreed that higher management was concerned with safety issues, but rangers reported the highest percent (29%) in disagreement (see Figure 34). Nearly 30 percent, (242 rangers) do not believe that higher management is concerned about safety issues that confront Corps projects.

Respondents to the questionnaire perceived supervisors to be more attentive than managers to safety concerns raised by rangers. At least 80 percent of respondents in all three employment categories agreed that supervisors listen (a total of 992 respondents out of 1,215).

Support resources appear most adequate for law enforcement agreements but least adequate for staffing. Responses addressing staffing display very little variance across the three categories of adequacy. Overall, there is not a very strong opinion about the adequacy or inadequacy of staffing support resources.

## CONCLUSIONS (Chapter 8)

A significant fraction of rangers consider personal safety to be a problem on the job. Many see the problem as growing worse. Almost two-thirds of the rangers have been verbally abused by visitors in the past three years; more than one in ten has been physically assaulted. Respondents provided their views on how key elements of the Visitor Assistance Program (equipment, law

enforcement agreements, training, management, and resources) contribute either positively or negatively to their personal safety and to that of visitors at Corps projects.

Corps personnel generally believe that the public has an unclear image of rangers, seeing them both as law enforcement officials and service oriented visitor assistants. Visitors may not know exactly what role rangers are supposed to play. To manage safety better, visitors should be aware of the limits of a ranger's authority.

Protective equipment perceived as most important was blood borne pathogen protection. The 90's and the results of a rising awareness of diseases transmitted through the blood may be directly related to the popularity of this equipment.

Law enforcement agreements appeared to exist throughout the Corps and the service received because of the agreement appeared mostly adequate. Yet, there were some problems contacting law enforcement 3 out of 10 times. The obvious safety hazard is that during the 3 times when no law enforcement is present, Corps staff and visitors are rendered vulnerable. The agreements need to be implemented as close to 100 percent as possible, and in possible life threatening situations 30 percent of error should be unacceptable.

Training used to equip staff with skills and knowledge that will enable them to take on ranger duties at Corps projects is a major area of concern. Skills perceived as important by staff were: communication, public

The Visitor Assistance Survey  
Summary

---

Executive

relations, conflict management, title 36 rules and regulations, and water safety. Skills such as these are critical to the Visitor Assistance Program and the more thorough the training concerning these skills, the more effective Corps project personnel will be.

Currently, there are five training courses offered to rangers throughout their tenure with the Corps. The worse rated course was the Visitor Assistance Basic Course; better rated courses were Refresher Visitor Assistance, Advanced Visitor Assistance, and Personal Protection Training. The ratings of these courses by project staff, not only shed some light on how well various project staff believe material was covered throughout the course; it also gave a picture of how well the courses trained. Some clear shortcomings exist. Ultimately, the more comprehensive and successful the training, the better staff will be equipped to use their training in unsafe and peculiar situations. Based on rating results of the various courses, the structures of the current courses require revamping.

Concerns about safety and support resources were covered. Both, management and supervisory concerns about safety were examined. Managers were found to be less attentive than supervisors to safety concerns that Corps staff introduced. Management needs to communicate its concern for safety to the workforce more effectively to change this perception.

Corps personnel are faced with potentially dangerous situations from time to time. Some Corps projects inhibit these

situations more frequently than others. This study illustrates that visitors and project staff experience verbal abuse, physical threats, and worst yet, physical assaults. Through training, having the appropriate equipment and assistance from the proper agencies, and support of the people they work with, project staff can be better prepared to handle these situations.

Lastly, outside forces that directly or indirectly contribute to abuse and threats of visitors and Corps staff need to be managed differently. Alcohol is a problem. It was considered the number one contributor to “hostile behaviors” by project personnel. A great number believed it should be prohibited at Corps projects. Since the objective is to make Corps projects safer places, then a review of policies on alcohol use is warranted and solutions that will reduce the unsafe situations that visitors and staff have been encountering are essential.

The Visitor Assistance Survey  
Summary

Executive

---



## The Visitor Assistance Survey Purpose and Overview

### CHAPTER 1

## PURPOSE AND OVERVIEW

### Introduction

The U.S. Army Corps of Engineers (COE) lakes, dams and reservoirs, and other projects, today are among the most heavily visited public recreation sites in the country. It is estimated that nationally Corps projects receive more than 400 million visitor days annually. The Visitor Assistance Program that currently oversees visitor use of Corps projects was first conceived of in 1970 with the implementation of the Cumberland Lake pilot program. The major objective of this program is to ensure that visitors to Corps facilities have a safe and enjoyable experience. The program is managed by the Natural Resources Management Branch (NRMB) of the Operations, Construction and Readiness Division of Civil Works (CECW-ON), and employs more than 1,800 personnel who are located on-site at Corps projects to provide visitor assistance services.

As public visitation pressure has grown at Corps facilities, the NRMB has become increasingly concerned about public safety and the safety of the Corps NRMB personnel who administer the Visitor Assistance Program on-site. The issue of safety was most recently investigated in Southwestern Division (SWD) where a survey was administered to the SWD NRMB workforce. This survey provided information on the perceptions of the SWD

workforce; however, NRMB concluded that a broader look was needed to arrive at nationally representative conclusions. As a result, NRMB requested that the Institute for Water Resources (IWR) conduct a national survey of the NRMB workforce on the issue of safety.

The purpose of this study is to shed some light on safety concerns voiced by NRMB personnel. IWR created and administered the questionnaire to elicit representative data upon which NRMB management could make decisions. The areas of inquiry were:

- Ranger training
- Field employees' safety
- Visitors' safety
- Gate attendants' safety
- Personal equipment
- Communication equipment
- Alcohol use
- Uniforms
- Resources
- Handling fees
- Reporting incidents
- Law enforcement agreements

### Survey Objectives

The Visitor Assistance Survey had six research objectives:

1. To identify NRMB personnel perceptions about safety at Corps projects;



## The Visitor Assistance Survey Purpose and Overview

---

2. To identify the general perceptions of NRMB personnel about the Visitor Assistance Program at Corps projects as the perceptions relate to safety;
3. To obtain the opinions of NRMB personnel on the importance and sufficiency of various equipment as the opinions relate to safety;
4. To obtain NRMB personnel views on the adequacy of law enforcement at Corps projects as the views relate to safety;
5. To obtain NRMB personnel views on important skills and various training courses as the views relate to safety;
6. To seek opinions from NRMB personnel on management concerns and the adequacy of support resources as the opinions relate to safety.

The survey sought to address these objectives by obtaining answers to a series of questions about ranger and visitor safety, modification and alcohol use, visitor assistance, personal and communication equipment, law enforcement, training, support resources, opinions on management safety concerns and demographics. Questions for each topic are presented in Appendix C.

### Research Methods

#### Defining Variables

Several variables were identified in this study. Many of the variables were made up of more than one component. The variables are defined below.

#### **Safety**

The survey included several sections tailored to address safety issues. Discussed in detail are ranger safety, visitor safety, modifications for gate attendant safety and alcohol. Much of the discussion is based on perceptions from both first hand and second hand experiences.

Ranger safety refers to the well being of NRMB employees while conducting official duties at Corps projects (rangers, managers and other/professional employees). Responses on the characterization of ranger safety and descriptions of their present safety level helped measure safety perceptions. The levels of safety were “increasing,” “decreasing,” and “staying the same.” “Increasing” was defined as, a level of safety that has improved during a respondent’s employment. “Decreasing” was any noticeable decrease in their level of safety during employment, and “staying the same” means that the respondent did not detect any noticeable change in safety during employment.

Hostile behaviors encountered by



## The Visitor Assistance Survey Purpose and Overview

rangers were also measured; this behavior included verbal abuse, physical threats and physical assaults. Verbal abuse was degrading language used to insult rangers; physical threats were characterized as verbal or physical gestures that indicated intent of physical harm. Lastly, physical assaults suggested aggressive physical contact.

Visitor safety refers to the well-being of visitors who visit Corps projects throughout a season. Perceptions of visitor safety were measured by responses NRMB personnel gave on the characterization of visitor safety and descriptions of their present level of safety (increasing, decreasing, and staying the same as defined above). Hostile behavior was also examined, but instead of separating the behavior as was done above, hostile behavior was examined in whole. Incidents in which visitors were physically or verbally abused or threatened were examined.

Gate attendant safety refers to the well-being of gate attendants at Corps projects. These people are not NRMB employees but are contracted to the government through a local agency. Perceptions of their safety were measured by looking at the different modifications that NRMB employees perceived would make them safer.

Alcohol use refers to the consumption of alcohol by visitors at Corps projects. NRMB perceptions about the impact of alcohol use were measured by examining the number of incidents that were alcohol related.

Also NRMB opinions on whether alcohol should be allowed at Corps projects were obtained; responses covered a range between agree and disagree. The specific questions and the possible responses to each question are provided in Appendix C.

### Perceptions of Visitor Assistance

The existence of a Visitor Assistance Program and Public Relations Plan at each Corps project was examined. Also, images that Corps staff personify to visitors were examined. The Visitor Assistance Program carries out policies of the Corps designed to provide safe and healthful recreation opportunities while protecting and enhancing project resources. "The protection of facilities or the enforcement of rules will always be secondary to the safety of Corps personnel and

visitors (Reg. No. 1130-2-420<sup>2</sup>)." A Public Relations Plan is an aggressive public information program geared to notify and assure public understanding and support of the Visitor Assistance Program. Each Corps project responsibility is to outline an action plan regarding public relations as a continuation of communication with the public

---

<sup>2</sup>This is the U.S. Army Corps of Engineers Visitor Assistance Program regulations that mainly specifies required equipment, procedures, and training in conflict resolution, personal protection and situation evaluation and other areas critical to the safety of rangers. This regulation was last updated 1 November 1992.



## The Visitor Assistance Survey Purpose and Overview

(Reg. No. 1130-2-420, pg. 2).

Different images of Corps staff were, “law enforcement,” or “visitor assistant,” or a range in between. The law enforcement types were those rangers that looked like badge toting officers with unlimited authority; whereas visitor assistant types, were rangers who projected an image of service and helpfulness to the visiting public. The images were measured by how Corps project staff perceived the public view of Corps rangers. Perceptions were recorded from a range of responses. The range was between “John Law,” which is a nickname for the law enforcement type and “Good Guys” which is a nickname for the visitor assistance type; the middle of the range represented ambiguity. Also, how visitors viewed uniforms that rangers wore was also examined. (Specific questions and the response categories appear in Appendix C)

### Equipment

The sufficiency and the importance of specific equipment to NRMB personnel was reviewed. Three different types of equipment were examined: communication, surveillance, and personal protection. *Communication equipment* helps rangers contact or signal other parties that could help in time of crisis. *Surveillance equipment* aids rangers in detecting crises and documenting incidents; listed are some examples of equipment: polaroid cameras, video cameras, and vehicle light bars. *Personal protection equipment* is used in times of crises; it helps protect Corps

staff in life threatening situations; listed are some examples: blood borne pathogen protection, handgun and bulletproof vest.

### Law Enforcement Agreements

This section focuses on the effectiveness of law enforcement agreements. Law enforcement agreements are policies and guidelines for the establishment and management of cooperative agreements for increased law enforcement services at Civil Works water resource projects administered by the Corps (ER 1130-2-418<sup>3</sup>). This was measured by examining the existence of agreements at Corps projects and the adequacy of service received.

### Training

Skills and training courses were evaluated. The combination of skills and training was used to gain insight about the training of NRMB personnel. Skills are acquired through training and experience. A Likert scale was used with responses ranging from "important" to "not so important" to assess how important respondents thought specific skills were to their job performance.

Training is formal instruction that will provide skills in specific areas. Training was

---

<sup>3</sup>This regulation covers cooperative agreements for law enforcement services at Civil Works water resource projects and was updated 1 February 1984.



## The Visitor Assistance Survey Purpose and Overview

assessed by respondents reporting whether they had taken a specific course and if so, they were to rate the course's coverage of subject matter using a scale of "A" through "F" (A, B, C, D, F); "A" being the best rating and "F" the worst).

### **Management**

Various aspects of management that affect operations and safety were addressed. Management concerns were issues brought up by Corps staff. As part of this measurement, the adequacy of support resources were examined for staffing, general funding, facility improvements, maintenance funding, and policy guidance. Support resources help to make a Corps project run more efficiently and effectively.

### **Demographic Characteristics**

The survey solicited basic information about NRMB personnel concerning:

|          |                    |
|----------|--------------------|
| Gender   | Position           |
| Age      | Citation authority |
| Grade    | Ethnic background  |
| Years in | Division/District  |

### **Population and Survey Administration**

The population surveyed in this study included NRMB personnel, except administrative, clerical, and maintenance staff. The survey population mainly consisted of rangers, managers, and other professional personnel such as: outdoor recreation

planners, environmental protection specialists, foresters, etc. Approximately 1,893 individuals made up this population at the time of survey. Surveys were mailed directly to each individual using a mailing list provided by NRMB. A cover letter was included which explained the purpose of the survey and a guarantee of anonymity. Participants who completed the survey were asked to return the surveys directly to IWR for data entry. A week after the initial mailing, a follow-up post card was mailed out reminding participants to complete and return their surveys if they had not already done so. A total of 1,267 surveys were returned for a response rate of 67 percent. This is a relatively high response rate for a mail out survey and suggests a high level of interest among NRMB personnel on the topic.

### **Questionnaire**

The instrument used for this survey was designed to address the research objectives previously identified. The survey consisted mostly of closed-ended questions, but open-ended questions were also asked. The questionnaire was developed in consultation with IWR and NRMB staff. Appendix A contains a copy of the questionnaire and Appendix B shows the frequency of responses for each question.

### **Description of Data**

An overview of the biographical responses to the survey showed that 68 percent of respondents worked as rangers, 22 percent were employed as managers, and 10



## The Visitor Assistance Survey Purpose and Overview

percent held positions in professional areas stated above (see Figure 1-1). The grade levels of respondents ranged from GS-4 through SES, with GS-9 through GS-11 being the most common grade levels at 60 percent. Overall, 83 percent of the respondents were male and 17 percent female. Most of the respondents (38%) were within the 36-45 year age range (see Figure 1-2). The vast majority of respondents of this survey were Caucasian (92%). Of the remaining groups the highest representations were African Americans (2.5%), Native Americans (2.3%), Hispanics (0.7%), Asians (0.3%), and others (2.0%) (see Figure 1-3). Nationwide, 90 percent of the respondents had citation authority; that is, authority given to rangers and natural resource specialists allowing administration of tickets signifying violation(s) of Corps projects' rules and regulations.

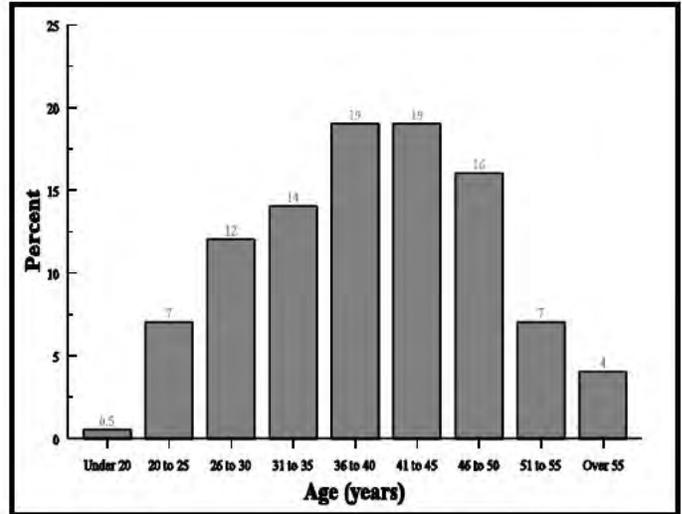


Figure 1-2. Age Distribution of Participants

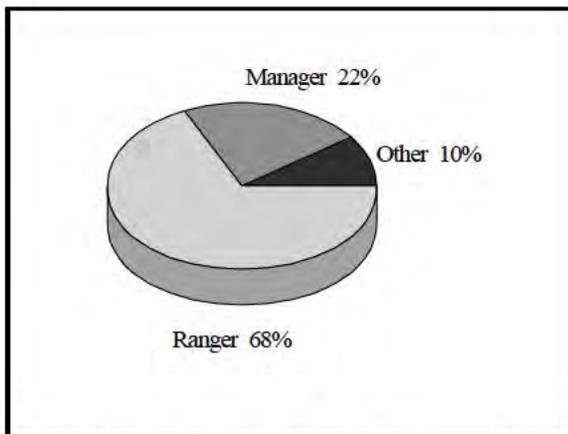


Figure 1-1. Percentage of Personnel in Each Employment Category

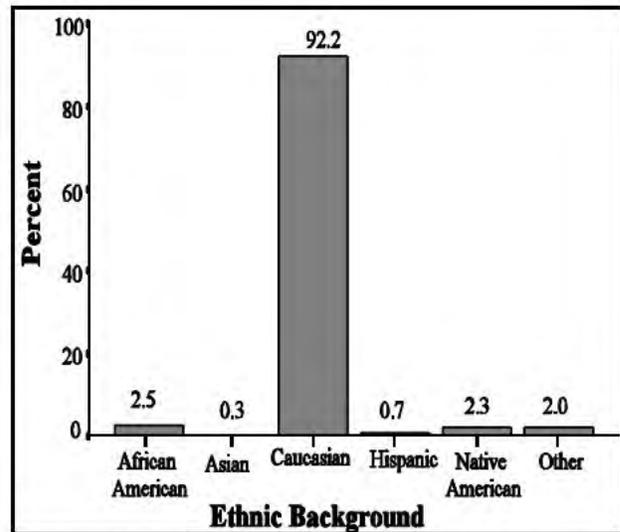


Figure 1-3. Ethnic Background of Survey Respondents



## The Visitor Assistance Survey Perceptions of Safety

### CHAPTER 2

#### PERCEPTIONS OF SAFETY

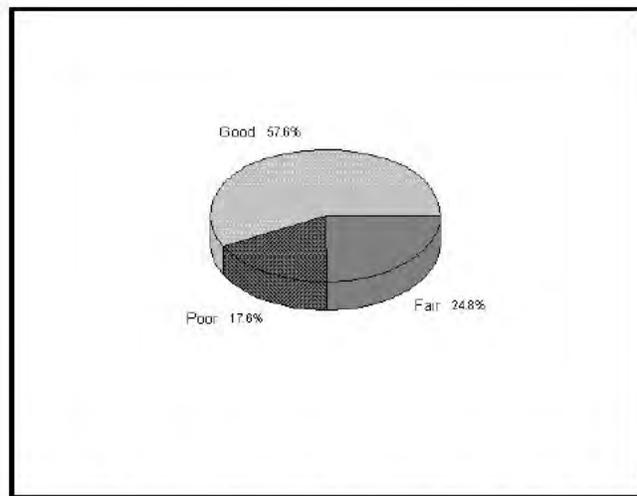
This chapter addresses perceptions of safety from the viewpoint of NRMB personnel. Two categories of safety were examined, NRMB personnel safety and visitor safety. Other topics such as alcohol use and modifications for improving gate attendant and overall safety were examined. Both general perceptions of safety and self-reports of hostile behavior against project staff and visitors were measured. Different perceptions are thoroughly discussed throughout this chapter.

#### NRMB Personnel Safety

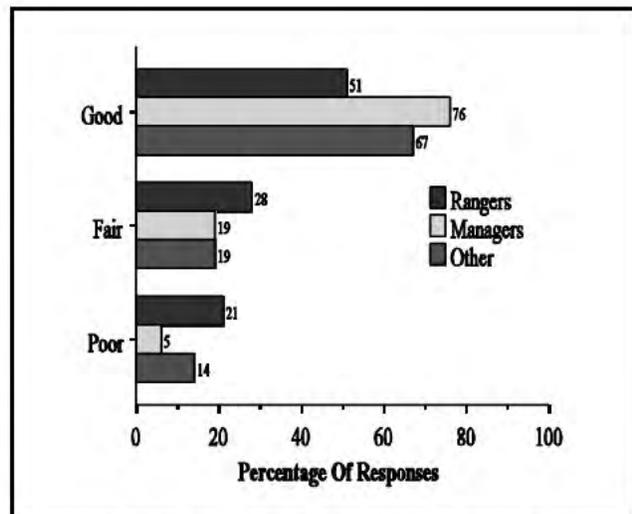
Overall, many respondents said that they perceived their safety as good. However, respondents also viewed safety in another light, 42 percent of 1,265 respondents perceived their safety as fair to poor (see Figure 2-1). Although this group covers less than half of all respondents, these figures suggest some potential safety problems; especially when coupled with the fact that nearly half 1,164 respondents perceived their safety to be “decreasing.”

Managers, rangers, and professional employees indicated some differences in perceptions of safety; managers overwhelmingly perceived their safety as good, while only half (51%) of rangers reported safety as good (see Figure 2-2). The differences displayed about ranger perceptions of safety, reveals that rangers as a whole do not agree that

their safety is good; close to one-quarter (176 respondents) perceived their safety as poor and a little more than one quarter (226 respondents) perceived their safety condition as fair. A grand total of 49 percent of rangers (402 respondents) characterized their safety as fair to poor.



**Figure 2-1. All Survey Respondents Rated How They Perceived Their Safety**



**Figure 2-2. Survey Participants Rated How They Perceived Their Safety**



## The Visitor Assistance Survey Perceptions of Safety

Geographically, perceptions were similar by Division. It was found that more than half of most Divisions reported that they perceived their safety as good. Exceptions, although close to 50 percent, were the South Pacific Division (SPD) with 45 percent (20 respondents) and the Southwestern Division (SWD) with 47 percent (105 respondents) agreeing that the condition of their safety was good. Again, perceptions of poor safety were not very frequent; however, about one-quarter of those that responded from the South Pacific (12 respondents) and Southwestern Divisions (45 respondents) considered safety poor at their specific projects.

Besides perceived safety conditions at Corps projects, the perception of change in personnel safety was examined. The three possible levels used to describe perceived safety were “increasing,” “decreasing,” and “staying the same” (see Table 2-1). Managers typically described their safety as “staying the same.” Professional personnel revealed similar perceptions with 56 percent indicating their safety as staying the same. On the other hand, rangers clearly characterize their safety differently, they typically described their safety as “decreasing” with 50 percent reporting this direction of change (see Table 2-1). Therefore, NRMB personnel was less

likely to agree on perceptions of increasing safety. Mainly, the bulk of responses showed “decreasing” or “safety that stays the same.” Findings such as these are evidence that the safety issue requires further examination. Unfortunately, evidence of increasing safety at Corps projects is scarce.

### Verbal Abuse, Physical Threats, and Assaults

Incidents of verbal abuse, physical threats, and physical assaults were explored to shed light on hostile behaviors experienced by Corps project staff. In this study, verbal abuse is degrading language used to insult project staff; physical threats were characterized as verbal or physical gestures that indicated intent of physical harm. Lastly, physical assaults suggested aggressive physical contact. Project staff that is consistently stationed in the field (rangers), directly interacting with the visitor, have more face to face contact with hostile behaviors displayed at Corps projects than the other employment categories (managers and professional personnel). Therefore, hostile behaviors against rangers perpetrated by visitors were examined the closest.

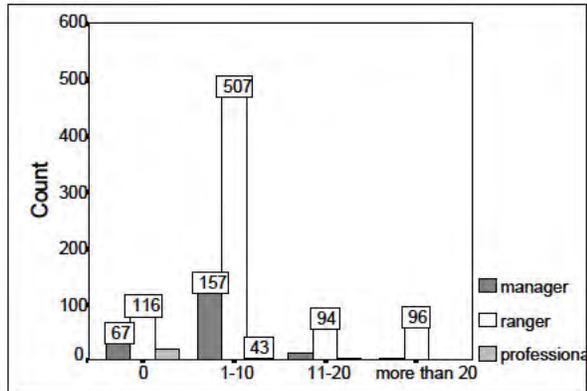
Within the last three years, of 813 rangers that responded, 507 (62%) rangers said that they experienced between 1-10 incidents of verbal abuse (see Figure 2-3). Although, physical threats were perpetrated against rangers at a less frequent rate than verbal abuse, 373 respondents (46%) reported between 1-10 incidents of physical threats (see Figure 2-4). The least frequent occurrences of hostile behavior involved physical assaults. Of the 813 rangers responding, only 94 (12%) indicated that they had been physically assaulted at least once over the last three years; all other respondents reported zero

**Table 2-1. Respondents Characterize Corps Staff Safety**

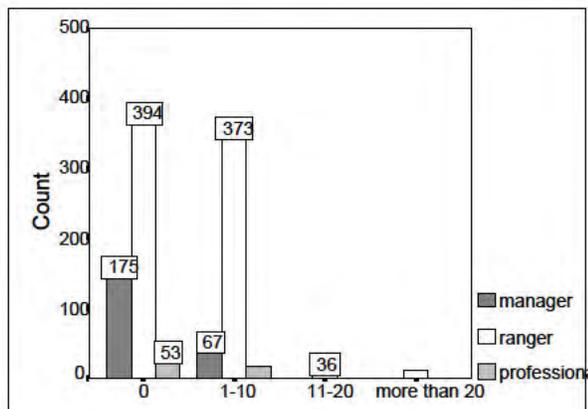
| <i>Safety</i>           | <i>Managers</i> | <i>Rangers</i> | <i>Professional</i> |
|-------------------------|-----------------|----------------|---------------------|
| <i>Increasing</i>       | 18              | 12             | 18                  |
| <i>Decreasing</i>       | 34              | 50             | 26                  |
| <i>Staying the Same</i> | 48              | 38             | 56                  |
| <i>Total</i>            | 100%            | 100%           | 100%                |



## The Visitor Assistance Survey Perceptions of Safety



**Figure 2-3. Verbal Abuse against Respondents Within the Last Three Years**



**Figure 2-4. Number of Physical Threats Against Respondents Within the Last Three Years**

physical assaults.

Due to the abuse that staff encounter, some more than others, a reaction may result. However, the ways in which project staff can react are limited. In fact, Corps project personnel have no law enforcement authority and are encouraged to consult law enforcement officials when visitors are in violation of the law.

The operation of Corps projects is multifaceted and therefore, safety problems

can be due to several different factors. Safety problems that are encountered may be linked to the visitors assistance aspect of training or other training issues such as communication, public relations, and conflict resolution training. Also, having the appropriate equipment and a rapport with local law enforcement agencies may be related to the frequency of abuse Corps project staff encounters. How these issues relate to safety at Corps projects are discussed in more detail within the succeeding chapters.

### Contributing Factors

Incidents against staff at Corps projects are believed to be provoked by a variety of factors. The premise, however, is that some factors contribute to verbal abuse, physical threats and physical assaults of project staff more frequently than do other factors. Of the incidents against project staff, alcohol is reported to contribute most frequently.

One factor that appears to have very little or no impact on incidents involving Corps project staff is ethnic differences. In Table 2-2, ethnic differences are ranked tenth out of twelve factors. Only 11 percent of the

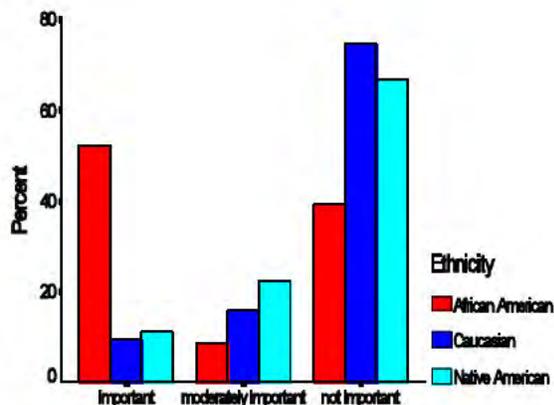


## The Visitor Assistance Survey Perceptions of Safety

**Table 2-2. Ranking Importance of Contributing Factors to Incidences Involving Rangers**

| Factors  | Percent |
|--|---------|
| 1. Alcohol   | 76      |
| 2. Personality of Visitor                          | 71      |
| 3. Drugs   | 48      |
| 4. Conflicting Activities                          | 35      |
| 5. Overcrowding                                    | 35      |
| 6. Mistaking Rangers for Law Enforcement Officials | 33      |
| 7. Isolation of Project                            | 30      |
| 8. Lack of Ranger Skills and Training              | 22      |
| 9. Failure of Ranger to Control the Situation      | 14      |
| 10. Ethnic Differences                             | 11      |
| 11. Gang Activity                                  | 10      |
| 12. Language Differences                           | 8       |

survey population considered that it may be an important factor in contributing to hostile



**Figure 2-5. Importance of Ethnic Differences Contributing to Incidents Against Rangers**

behaviors. However, as data is examined further, results show that after stratifying the population into the different ethnic groups (African American, Caucasian and Native Americans), outcomes change (see Figure 2-5). Clearly, African Americans disagree that ethnic differences are not a factor when contributing to incidents against project staff.

Based on this finding, perceptions of safety may be different depending on the respondent’s ethnic background. So, using all perceptions, even those other than the majority will better aid in discovering the problems and finding solutions to safety problems at Corps projects.

### Visitors Safety

Respondents generally characterized visitor safety better off than NRMB personnel safety. Basic interpretation of the data reveals that most respondents and all employment categories overwhelmingly perceived visitor safety to be in good condition. Perceptions of change in visitor safety were of “increasing” more frequently than project staff safety levels (see Table 2-3).

**Table 2-3. Corps Personnel Characterize Visitor Safety**

| Safety           | Managers    | Rangers     | Professional |
|------------------|-------------|-------------|--------------|
| Increasing       | 22          | 22          | 18           |
| Decreasing       | 28          | 40          | 29           |
| Staying the Same | 50          | 38          | 53           |
| <b>Total</b>     | <b>100%</b> | <b>100%</b> | <b>100%</b>  |

Given that these results are not perceptions directly taken from visitors, some limitations in the ability to generalize the findings exist. We cannot automatically assume that because NRMB personnel perceived visitor safety in this fashion that visitors see their safety in the same light. Perhaps future research will address visitor perceptions directly.



## The Visitor Assistance Survey Perceptions of Safety

In the last three years, 430 rangers (53%) witnessed between 1 and 10 incidents where a visitor verbally or physically threatened another visitor (see Figure 2-6). Unlike incidents that involved rangers as the victim, 185 rangers (23%) indicated that they witnessed more than 20 incidents in which visitors displayed some hostile behavior toward another visitor. This is probably due to the conglomeration of verbal abuse, physical threats, and assaults that describe the array of hostile behaviors; also coupled with the reality that there are many more visitors at Corps projects than rangers.

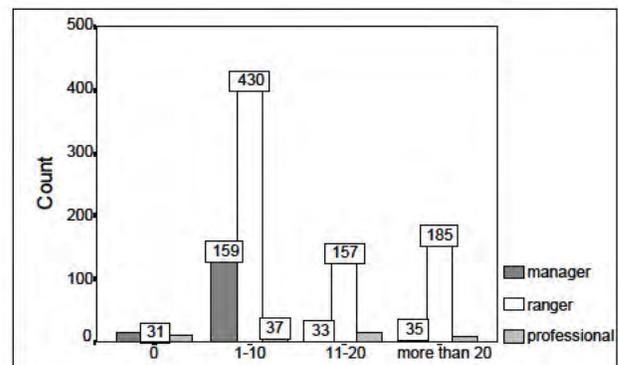
Visitor safety at Corps projects is viewed as being less of a problem than project staff safety, nonetheless, it requires attention. We should ask why do visitors display hostile behavior toward project staff and other visitors? Does the surrounding environment promote these behaviors? Do project staff have the tools, and appropriate training to intervene or to de-escalate potentially hostile situations? These questions will be discussed in later chapters.

### Alcohol

Based on responses to the survey question, it appears that visitors do experience some hostile behavior at the hands of visitors and that their safety is a problem. One thousand and twenty four project personnel participated in pointing out the factors that contribute to hostile behaviors displayed by visitors. A large fraction of this group (870) reported that alcohol was the most important factor in contributing to the array of hostile behaviors.

The perceptions and impacts of alcohol use were examined. Alcohol use by “of age” visitors is perfectly legal at Corps projects, but that does not negate the fact that used in large quantities it could impair judgment. After examining incidents perpetrated against project staff and incidents against visitors (see Table 2-4), consistently, alcohol was rated the number one factor that contributed to these incidents. Therefore, from the outset, alcohol appeared to cause safety problems at Corps projects.

In search of a more complete picture of the impact of alcohol, we asked, “What is the average number of alcohol-related incidents that you have been directly involved with at your project within the last three years?” In the last three years, out of 1,138 respondents, 482 (42%) answered that they had been directly involved with alcohol-related incidents at least 1 to 10 times (see Figure 2-7). Nineteen percent (218) were involved in an incident 11-20 times and almost 30 percent (322) reported that they were directly involved with alcohol-related incidents more than 20 times in the last three years (see Figure



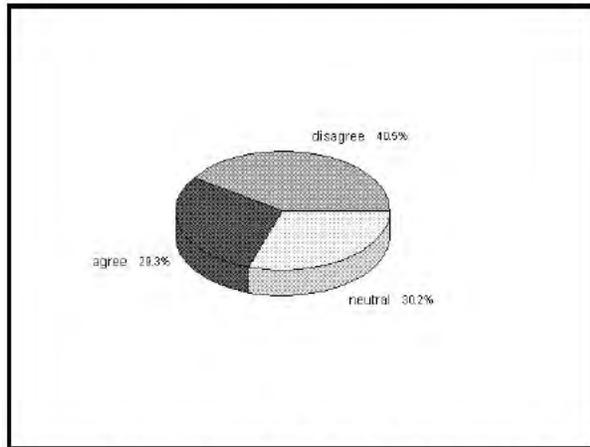
**Figure 2-6. Number of Incidents of Verbal Abuse, Physical Threats and Assaults on Visitors**



## The Visitor Assistance Survey Perceptions of Safety

2-7). This information mainly tells the number of alcohol-related incidents witnessed by project staff, but when coupled with the fact that alcohol is the number one factor in contributing to Corps project incidents, the

statement, “prohibition of alcohol at Corps projects would increase overall safety,” the popular response was overwhelming; out of 1,248 project staff, 893 agreed (72%) (see Figure 2-9).



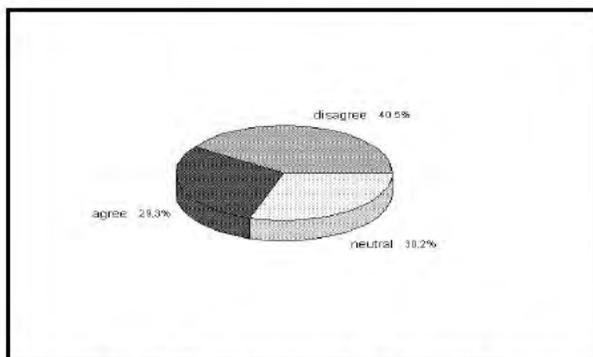
**Figure 2-8. “Alcohol should be allowed at Corps project.”**

results become more serious.

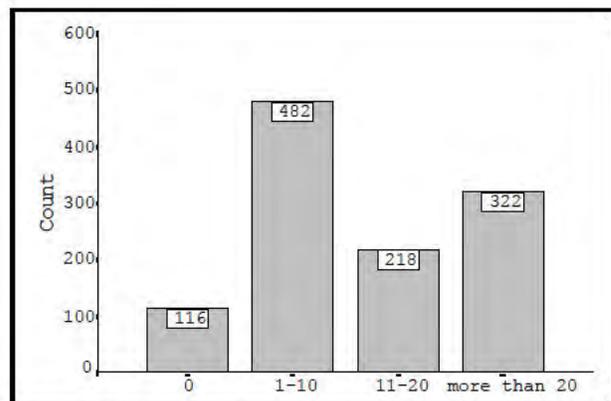
Views about whether alcohol should be allowed or prohibited were solicited. Forty percent of respondents disagreed that “alcohol should be allowed at Corps projects,” (see Figure 2-8). There was also a second

**Table 2-4. Ranking Importance of Contributing Factors for Incidences Involving Visitors**

| Factor  | Percent |
|---|---------|
| 1. Alcohol  | 85      |
| 2. Personality of Visitor                         | 75      |
| 3. Drugs  | 56      |
| 4. Overcrowding                                   | 48      |
| 5. Conflicting Activities                         | 44      |
| 6. Isolation of Project                           | 34      |
| 7. Mistaken Rangers for Law Enforcement Officials | 30      |
| 8. Ethnic Differences                             | 22      |
| 9. Failure of Ranger to Control the Situation     | 18      |
| 10. Gang Activity                                 | 17      |
| 11. Language Differences                          | 11      |



**Figure 2-9. “Prohibition of alcohol at Corps projects would increase overall safety.”**



**Figure 2-7. Alcohol Related Incidents Involving Respondents Within the Last Three Years**



## The Visitor Assistance Survey Perceptions of Safety

\*For every importance ranking table in this study, information was ranked and put in order according to combined responses of categories “extremely” and “very important” for each factor.

### Modifications

In this study modifications were recommended changes in equipment, policies, landscaping and other areas determined to be important to safety. Important gate attendant modifications were explored and a table of rankings created. Traffic modifications and general modifications were also explored and results were presented by ranking most to the least important.

#### Gate Attendant Safety

Gate attendants refer to assistance the Corps solicits through contractors, some duties include monitoring the entrance points and collecting day use fees. Of all the modifications, installing telephones and radios inside the buildings gate attendants are stationed at rated the number one modification to improving gate attendant safety (see Table 2-5). The installation of bulletproof glass and increasing or decreasing gate hours were not perceived as important to enhancing safety.

**Table 2-5. Ranking Modifications Important to Gate Attendant Safety**

| <i>Modifications</i>                     | <i>Percent</i> |
|--|----------------|
| 1. <i>Install Telephones and Radios</i>  | 96             |
| 2. <i>Frequent Revenue Pickup</i>        | 86             |
| 3. <i>Install Safes at Gate Stations</i> | 78             |
| 4. <i>Uniforms</i>                       | 60             |
| 5. <i>Install Surveillance Cameras</i>   | 49             |
| 6. <i>Enlarge Gate Stations</i>          | 38             |

|                                     |    |
|-------------------------------------|----|
| 7. <i>Install Bulletproof Glass</i> | 29 |
| 8. <i>Reduced Operating Hours</i>   | 20 |
| 9. <i>Increased Operation Hours</i> | 19 |

\*For every importance ranking table in this study, information was ranked and put in order according to combined responses of categories “extremely” and “very important” for each modification.

#### Overall Safety

Traffic modifications looked at changes concerning location and number of entrances, improved parking area, one-way traffic flow in selected areas, limiting the number of vehicles into the project and road widening. Two factors perceived to be important modifications to influence safety positively were the location and number of entrances and improved parking areas (see Table 2-6).

**Table 2-6. Traffic Modifications Importance Ranking**

| <i>Traffic Modifications</i>                     | <i>Percent</i> |
|--|----------------|
| 1. <i>Location and Number of Entrances</i>       | 73             |
| 2. <i>Improved Parking Area</i>                  | 72             |
| 3. <i>One-way Traffic Flow in Selected Areas</i> | 61             |
| 4. <i>Project Vehicle Limit</i>                  | 57             |
| 5. <i>Road Widening</i>                          | 40             |

\*For every importance ranking table in this study, information was ranked and put in order according to combined responses of categories “extremely” and “very important” for each traffic modification.

Finally, general safety modifications included factors such as: patrol (surveillance), public phones in developed areas, lighting, separate day use and overnight areas, attended entrance stations, nightly gate closing in recreational areas, clearly designated boundaries of recreational areas, general



## The Visitor Assistance Survey Perceptions of Safety

landscaping, additional facilities, fewer entries to recreational areas, enforced project visitor capacity, and shrubbery reduction (see Table 2-7). Results revealed that patrolling (surveillance) was perceived most important for enhancing safety (see Table 2-7). Most of the remaining factors were perceived as important by more than half the respondents. This suggests that all the factors in Table 2-7, if implemented, may influence overall safety positively.

*Table 2-7. Ranking Overall Safety Concerns*

| <i>Safety Concerns</i>  | <i>Percent</i> |
|---|----------------|
| 1. <i>Patrol (surveillance)</i>                               | 99             |
| 2. <i>Public Phones in Developed Areas</i>                    | 99             |
| 3. <i>Lighting</i>  | 98             |
| 4. <i>Separate Day Use and Overnight Areas</i>                | 95             |
| 5. <i>Attended Entrance Stations</i>                          | 92             |
| 6. <i>Nightly Gate Closing at Recreational Areas</i>          | 89             |
| 7. <i>Clearly Designated Boundaries of Recreational Areas</i> | 85             |
| 8. <i>General Landscaping</i>                                 | 80             |
| 9. <i>Additional Facilities</i>                               | 78             |
| 10. <i>Fewer Entries to Recreational Areas</i>                | 64             |
| 11. <i>Enforce User Limit/Carrying Capacity</i>               | 63             |
| 12. <i>Shrubbery Reduction</i>                                | 61             |

\*For every importance ranking table in this study, information was ranked and put in order according to combined responses of categories “extremely” and “very important” for each factor.



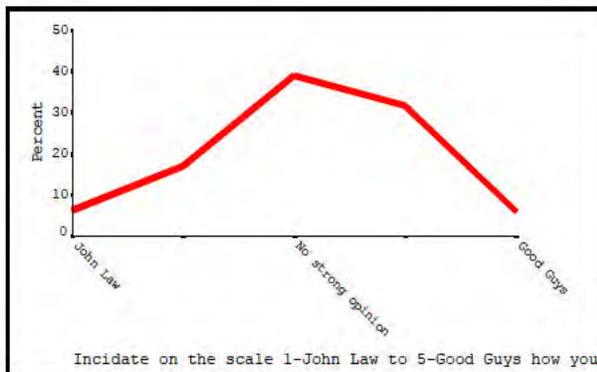
## The Visitor Assistance Survey Perceptions of Visitor Assistance

### CHAPTER 3

#### PERCEPTIONS OF VISITOR ASSISTANCE

This chapter addresses how NRMB personnel believe visitors perceive rangers, as visitor assistance or law enforcement. Additionally, whether Visitor Assistance and Public Relation Plans exist and how they relate to safety issues at Corps projects were examined.

The perceived public image of rangers as seen by survey participants is a dual role of law enforcement officer (a badge toting authority figure) and visitor assistant (service oriented and helpful to visitors) with little distinction between the two. As shown in Figure 13, responses were less frequent at opposite poles of the scale (“John Law”- law enforcement personality and “Good Guys”- visitor assistance personality). Responses most often appeared in the middle of the scale; therefore, signaling ambiguity in the images perceived to personify rangers.

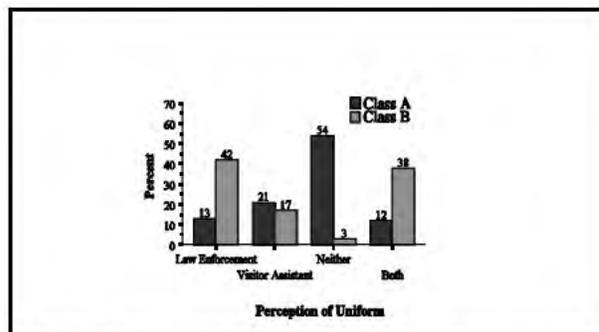


**Figure 13. Perceived Public's View of Corps Natural Resources Field Personnel**

Perceptions of the two uniform types

(A and B) were examined and different images were projected; respondents showed that the Class A uniform projected an ambiguous image where the ranger is perceived as neither the law enforcement nor visitor assistance type (see Figure 14). The Class A uniform is the business uniform worn with a white shirt, a tie and a green blazer; this uniform is usually worn only during public appearances by administrative staff and project managers. The Class B uniform projected primarily a law enforcement image. This uniform is military style that displays a badge and a hat; uniforms are worn by project rangers and specialty staff, for example, project foresters and landscapers. Responses for both uniform styles were similar for managers and rangers.

Although, 42 percent of project staff perceived that visitors' images of the Class B uniform are law enforcement (see Figure 14), rangers have no law enforcement authority



**Figure 14. Public Views of Class A and Class B Uniforms**

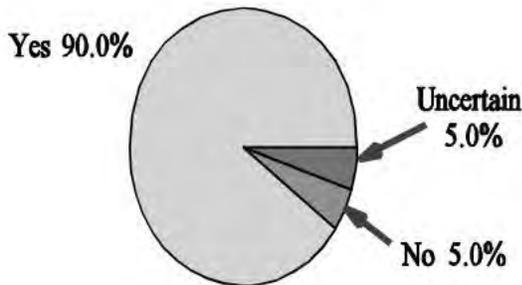
other than title 36. These perceptions may cause some misunderstandings. Visitors who believe rangers have law enforcement authority expect rangers to react accordingly and unclear roles may cause some misunderstandings. The authority that rangers possess and the authority those local law



## The Visitor Assistance Survey Perceptions of Visitor Assistance

enforcement agencies provide should be voiced clearly. The partnership between law enforcement agencies and Corps projects is discussed in more detail in chapter 5.

Many respondents said they were aware of a Visitor Assistance Program at their project. Overall, of 1,144 responses to this question, 90 percent said they were aware, 5 percent said they were “uncertain,” and 5 percent said “no” they were not aware of a Visitor Assistance Program (see Figure 15).

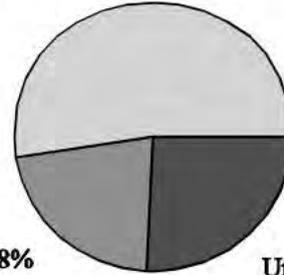


**Figure 15. Respondents Knowledge of a Visitor Assistance Program**

Although the Public Relations Plan is a component of the Visitor Assistance Program, fewer respondents were aware of such a plan. Only 52 percent reported knowledge of a Public Relations Plan, and while a very small percent were unsure whether a Visitor Assistance Plan existed, more persons (26%) were unsure concerning the presence of a Public Relations Plan (see Figure 16).

Examining visitor assistance and public relation plans by Division reflected a spectrum of results. Table 8 displays the total percent for each Division that were aware that a

Yes 52.5%



No 21.8%

Uncertain 25.7%

**Figure 16. Respondents Knowledge of a Public Relations Plan**

Visitor Assistance Program existed.

**TABLE 8. VISITOR ASSISTANCE PROGRAM BY DIVISION**

| DIVISION                 | PERCENT (N=884) |    |           | total % |
|--------------------------|-----------------|----|-----------|---------|
|                          | yes             | no | uncertain |         |
| <i>Lower Mississippi</i> | 99              | 1  | 0         | 100     |
| <i>Missouri River</i>    | 94              | 3  | 3         | 100     |
| <i>New England</i>       | 88              | 5  | 7         | 100     |
| <i>North Atlantic</i>    | 94              | 6  | 0         | 100     |
| <i>North Central</i>     | 96              | 0  | 4         | 100     |
| <i>North Pacific</i>     | 98              | 0  | 2         | 100     |
| <i>Ohio River</i>        | 89              | 6  | 5         | 100     |
| <i>South Atlantic</i>    | 94              | 2  | 4         | 100     |
| <i>South Pacific</i>     | 82              | 16 | 2         | 100     |
| <i>Southwestern</i>      | 82              | 7  | 11        | 100     |

Additionally, South Pacific and Southwestern Division showed 18 percent answered no or uncertain to their awareness of such a program. Table 9 addresses the existence of a functioning Public Relations Plan within each Division. According to the 1,144 responses,



## The Visitor Assistance Survey Perceptions of Visitor Assistance

more are aware of the Visitor Assistance Program than of the Public Relations Plan. Less than 50 percent of three Divisions reported awareness of their projects Public Relations Plan (New England, North Atlantic, and Southwestern). Additionally, New England stands out with only 35 percent reporting that they do have a program in place.

and healthful recreation opportunities while protecting and enhancing the safety of Corps personnel and visitors. The Public Relations Plan is an aggressive public information program designed to notify and assure public understanding and support of the Visitor Assistance Program. Ultimately, the more aware rangers are of the program the more likely they will practice safety as prescribed by the Regulation (1130-2-420).

**TABLE 9. PUBLIC RELATIONS PLAN BY DIVISION**

| <i>DIVISION</i>          | <i>PERCENT (N=879)</i> |           |                  | <i>total %</i> |
|--------------------------|------------------------|-----------|------------------|----------------|
|                          | <i>yes</i>             | <i>no</i> | <i>uncertain</i> |                |
| <i>Lower Mississippi</i> | 66                     | 14        | 20               | 100            |
| <i>Missouri River</i>    | 50                     | 34        | 16               | 100            |
| <i>New England</i>       | 35                     | 30        | 35               | 100            |
| <i>North Atlantic</i>    | 44                     | 28        | 28               | 100            |
| <i>North Central</i>     | 60                     | 19        | 21               | 100            |
| <i>North Pacific</i>     | 51                     | 29        | 20               | 100            |
| <i>Ohio River</i>        | 52                     | 26        | 22               | 100            |
| <i>South Atlantic</i>    | 55                     | 22        | 23               | 100            |
| <i>South Pacific</i>     | 61                     | 25        | 14               | 100            |
| <i>Southwestern</i>      | 43                     | 35        | 22               | 100            |

A total of 10 percent were unaware that a Visitor Assistance Program existed at their project. This means that 189 persons of a population of 1,893 are not familiar with the various points within Regulation No. 1130-2-420. Also, of 1,893 respondents, 908 were uncertain of their projects' Public Relations Plan. So, how can various policies and practices be carried out if rangers are unaware that the program even exists? The Visitor Assistance Program calls for providing safe



The Visitor Assistance Survey  
Perceptions of Visitor Assistance

---



## The Visitor Assistance Survey Equipment

### CHAPTER 4

### EQUIPMENT

In this study, we asked respondents “of the various types of equipment, what did they believe to be important in conducting daily Corps project operations?”. There are three types of equipment: communication, surveillance, and personal protection equipment; some of which have been used and some that have never been used by project personnel during official duties. The main objective in evaluating perceptions of important equipment, is to discover equipment that enhances safety at projects and to uncover the shortcomings concerning the lack of appropriate equipment.

What equipment fosters safety at Corps projects? Addressing this question is twofold, equipment that fosters safety is equipment perceived as important in helping to carry out official duties. While, equipment perceived unimportant suggests that, most likely it is not a factor that will influence safety greatly. Specific examples are sited below.

#### Communication Equipment

Communication equipment was generally considered important equipment for use on the job by all positions. Of the nine different types of communication equipment, managers and rangers ranked the importance of this equipment similarly. Mobile vehicle radios ranked the highest while law enforcement communication links followed (see Table 10). This equipment is perceived as necessary to carry out daily duties and more

important, to fostering safety at Corps projects. Further down the ranking list (see Table 10), results show that managers and rangers also agreed that answering machines and paging devices were perceived to be the least important and therefore, not very necessary in promoting safety at Corps projects.

*Table 10. Importance Ranking of Communication Equipment*

| <i>Equipment</i>                     | <i>Managers<br/>%</i> | <i>Equipment</i>                     | <i>Rangers<br/>%</i> |
|--------------------------------------|-----------------------|--------------------------------------|----------------------|
| 1 Mobile Vehicle Radio               | 96                    | 1 Mobile Vehicle Radio               | 98                   |
| 2 Law Enforcement Communication Link | 92                    | 2 Law Enforcement Communication Link | 95                   |
| 3 Portable Radio                     | 89                    | 3 Portable Radio                     | 94                   |
| 4 Public Phone                       | 58                    | 4 Public Phone                       | 67                   |
| 5 Cellular Phone                     | 49                    | 5 Public Address System              | 60                   |
| 6 Public Address System              | 47                    | 6 Scanner                            | 59                   |
| 7 Scanner                            | 42                    | 7 Cellular Phone                     | 56                   |
| 8 Answering Device                   | 27                    | 8 Answering Device                   | 33                   |
| 9 Pager                              | 15                    | 9 Pager                              | 19                   |

#### Surveillance Equipment

Surveillance equipment is seen as being useful to enhance field personnel monitoring capabilities and detection of crises at various Corps projects. Specifically, the items are polaroid cameras, 35mm cameras, video cameras, vehicle light bars and alarms. Only two items were considered overwhelmingly



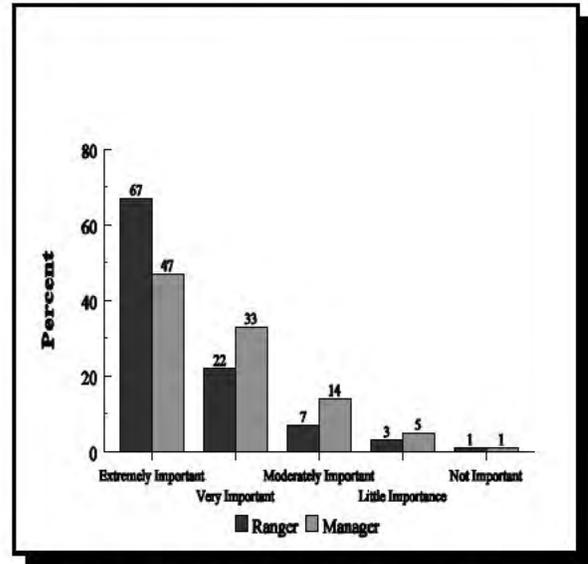
## The Visitor Assistance Survey Equipment

important, these were polaroid cameras and 35mm cameras. Of these items, polaroid cameras were most important among managers and rangers (see Table 11). The remaining items were not as important, responses waver to unimportance in contributing to safety at Corps projects (see Table 11).

*Table 11. Importance Ranking of Surveillance Equipment*

| <u>Equipment</u>    | <u>Managers %</u> | <u>Equipment</u>    | <u>Rangers %</u> |
|---------------------|-------------------|---------------------|------------------|
| 1 Polaroid Camera   | 72                | 1 Polaroid Camera   | 81               |
| 2 35 mm Camera      | 70                | 2 35 mm Camera      | 73               |
| 3 Video Camera      | 42                | 3 Video Camera      | 49               |
| 4 Vehicle Light Bar | 28                | 4 Alarm             | 47               |
| 5 Alarm             | 26                | 5 Vehicle Light Bar | 43               |

importance, as suggested by respondents, were mace/pepper spray and bulletproof vests (see



**Figure 17. Blood Borne Pathogen Protection**

Figures 18 and 19).

### Personal Protection Equipment

In this study, personal protection equipment refers to equipment used to protect personnel from potentially life threatening situations during official duty. Of all the protective equipment, overwhelmingly, blood borne pathogen protection was seen as the most important (see Figure 17). Responses “extreme importance” and “very important” were combined; of these responses, 80 percent of managers revealed that blood borne pathogen protection was important, rangers reported an even greater response rate of 89 percent (see Table 12). Following in

*Table 12. Importance Ranking of Personal Protection Equipment*

| <u>Equipment</u>            | <u>Manager %</u> | <u>Ranger %</u> |
|-----------------------------|------------------|-----------------|
| 1 Blood Pathogen Protection | 80               | 89              |
| 2 Mace/Pepper Spray         | 36               | 57              |
| 3 Bulletproof Vest          | 22               | 44              |
| 4 Nightstick                | 18               | 34              |
| 5 Handgun                   | 17               | 34              |
| 6 Stun Gun                  | 13               | 26              |
| 7 Night Goggles             | 7                | 21              |



## The Visitor Assistance Survey Equipment

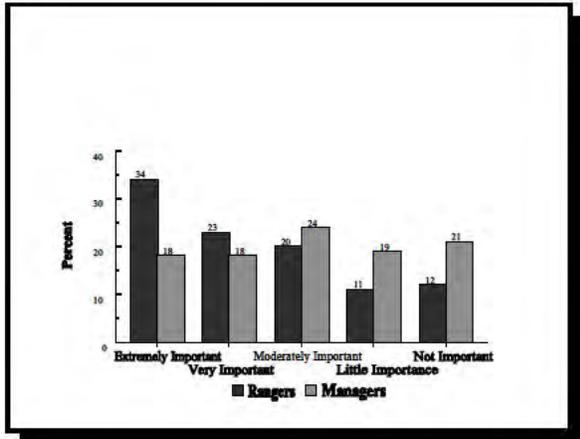


Figure 18. Mace/Pepper Spray

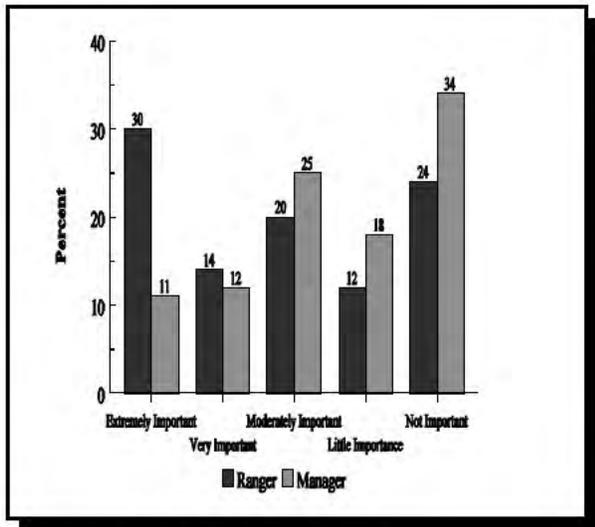


Figure 19. Bulletproof Vests

50 or more percent for importance or unimportance. Following the figure closely shows that blood borne pathogen protection is considered important by every Division, exemplifying a very strong consensus across the Corps.

Looking more closely at results on protective equipment, bulletproof vests were far from consistent across the Corps; half the Divisions perceived it as unimportant and the other half had no strong perceptions either way. Only one Division, the Southwestern Division, believed that bulletproof vests were important (see Figure 20). Based on responses about handguns, the consensus throughout the Corps indicated that handguns were unimportant. Mace/pepper spray data showed some differences; three Divisions, North Atlantic, South Pacific, and Southwestern perceived the item as important. On the other hand, night goggles, night sticks, and stun guns were generally considered unimportant by various Divisions.

Lastly, responses concerning the importance of personal protection equipment by Division were explored. Figure 20 displays the Divisions that clearly considered various items of equipment important or unimportant. Also shown, are the Divisions about which no strong opinion was shown either way, that is



## The Visitor Assistance Survey Equipment

### Sufficiency of Equipment

The sufficiency of equipment refers to the overall adequacy of the current equipment supply. Overall, many managers responded that equipment was sufficient. Although differences are not statistically significant, disparities do exist. Forty six percent of the managers responded that equipment supplies were sufficient, while 35 percent stated that it was not sufficient (see Figure 21). In contrast, only 30 percent of the ranger population stated that equipment was sufficient, while 48 percent stated that it was not sufficient (see Figure 22).

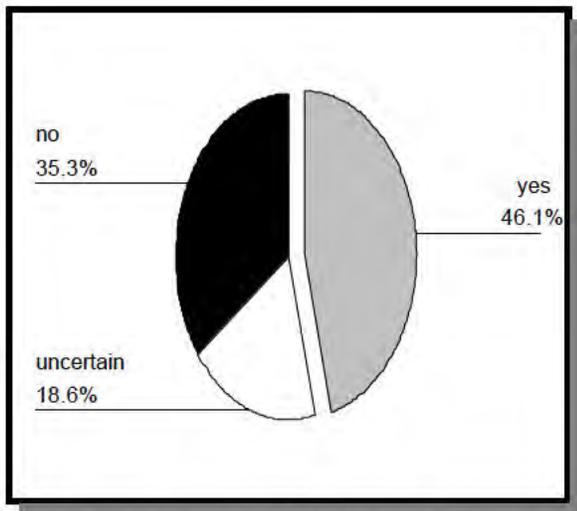


Figure 21. Managers Rate the Sufficiency of Equipment

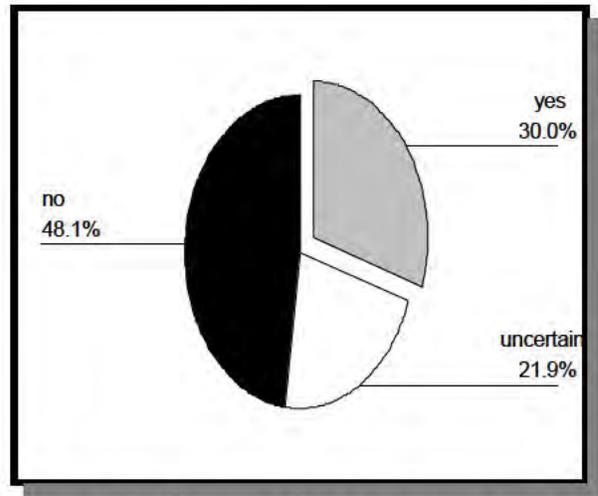


Figure 22. Rangers Rate the Sufficiency of Equipment

| Personal Protection Equipment * | Lovell Management | Management Drive | Alvarado | North Atlantic | North Central | North Pacific | Ohio Drive | South Atlantic | South Pacific | Southwest |
|---------------------------------|-------------------|------------------|----------|----------------|---------------|---------------|------------|----------------|---------------|-----------|
| Blood Pathogen Protection       | ●                 | ●                | ●        | ●              | ●             | ●             | ●          | ●              | ●             | ●         |
| Bulletproof Vest                | ●                 |                  | ●        | ●              |               |               | ●          |                |               | ●         |
| Flashlight                      | ●                 | ●                | ●        | ●              | ●             | ●             | ●          | ●              | ●             |           |
| Mask/ Pepper Spray              |                   |                  |          | ●              |               |               |            |                | ●             | ●         |
| Night Goggles                   | ●                 | ●                | ●        | ●              | ●             | ●             | ●          | ●              |               |           |
| Nightstick                      | ●                 | ●                | ●        |                | ●             | ●             |            | ●              |               |           |
| Stun Gun                        | ●                 | ●                | ●        | ●              | ●             | ●             | ●          | ●              |               |           |

● At least 50% reported important  
 ○ At least 50% reported not important  
 \* Blank boxes indicate no strong opinion of importance or unimportance

Figure 20. Importance of Equipment by Division



## The Visitor Assistance Survey Law Enforcement Agreements

### CHAPTER 5

#### LAW ENFORCEMENT AGREEMENTS

The existence of law enforcement agreements helps to guarantee that local law enforcement officials assist with law enforcement at Corps projects. This agreement acts as a partnership between the Corps and local law enforcement agencies. Generally, the belief is that having a law enforcement agreement better enables Corps projects to provide safe environments. Below is an examination of the status of law enforcement agreements at Corps projects.

Several questions were asked of participants about the presence of law enforcement agreements; the adequacy of agreements and problems encountered contacting law enforcement agencies. Overall, out of 881 responses to the question, “Do you have an agreement at your project?”, 80 percent said “yes,” 19 percent said “no,” and 3 percent were “uncertain.” Agreements were perceived by 58 percent to be a combination of very adequate and adequate (see Figure 23). Most respondents believed that service provided by law enforcement agencies under the agreement was adequate (see Figure 24). In addition, nearly 30 percent of respondents indicated that they had trouble contacting law enforcement authorities (see Figure 25). Although 30 percent was not statistically significant, having difficulties contacting law enforcement agencies 3 out of 10 times during crises poses safety hazards to visitors and project staff.

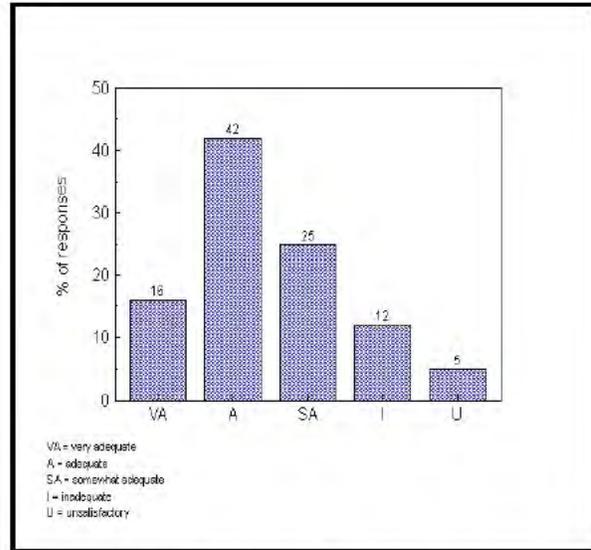


Figure 23. Adequacy of Agreement

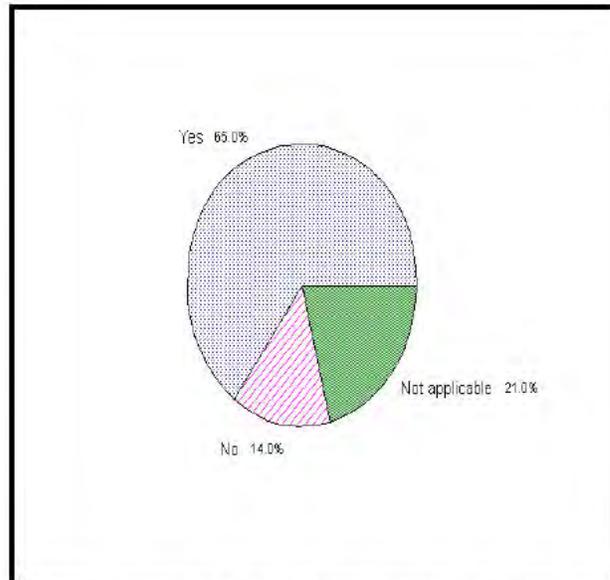
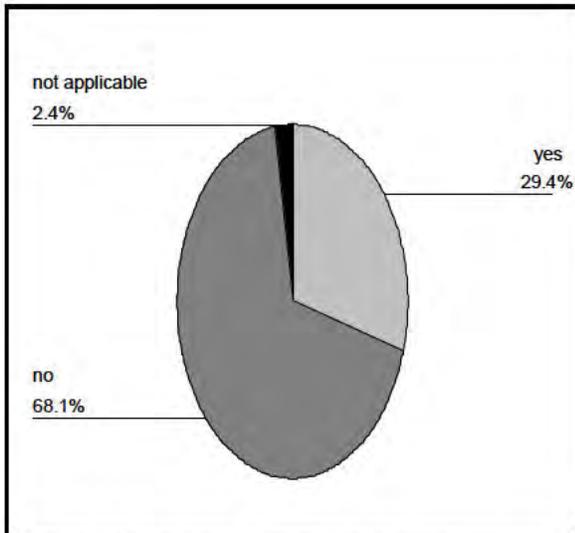


Figure 24. “Is the service received as a result of the agreement adequate?”



## The Visitor Assistance Survey Law Enforcement Agreements



**Figure 25. “Are there problems contacting law enforcement agencies?”**

Table 13 reports the total number of responses per Division and the total percent for each Division that answered yes to having an agreement at their project. Most responses per Division reported having a law enforcement agreement by at least 60 percent. Six Divisions reported 80 percent and above that they had an agreement. These Divisions were Lower Mississippi Valley, Missouri River, South Atlantic, South Pacific, and Southwestern Divisions. The North Atlantic Division stands out with only 47 percent of its respondents in agreement that they have a law enforcement agreement.

**Table 13. Law Enforcement Agreements by Division**  
(the total numbers and percent per Division that answered yes to having a law enforcement agreement at their project)

| Division          | NUMBER     |           |            | % yes     | Total N    |
|-------------------|------------|-----------|------------|-----------|------------|
|                   | yes        | unc       | no         |           |            |
| Lower Mississippi | 95         | 2         | 6          | 92        | 103        |
| Missouri River    | 54         | 2         | 7          | 86        | 63         |
| New England       | 25         | 1         | 12         | 66        | 38         |
| North Atlantic    | 8          | 2         | 7          | 47        | 17         |
| North Central     | 32         | 0         | 16         | 67        | 48         |
| North Pacific     | 40         | 3         | 13         | 71        | 56         |
| Ohio River        | 102        | 3         | 50         | 66        | 155        |
| South Atlantic    | 110        | 7         | 21         | 80        | 138        |
| South Pacific     | 38         | 0         | 5          | 88        | 43         |
| Southwestern      | 185        | 4         | 31         | 84        | 220        |
| <b>TOTAL</b>      | <b>689</b> | <b>24</b> | <b>168</b> | <b>78</b> | <b>881</b> |



## The Visitor Assistance Survey Training

### CHAPTER 6

### TRAINING

#### Knowledge and Skills

In this section, important training, knowledge, and skills considered enhancing to job performance was explored. The importance or unimportance of eleven different types of skills were considered. Sufficient skills and proper training are important to developing and maintaining a safe environment. Project staff have made some indications of the skills they considered most important in successfully carrying out official duties; that is, duties that include providing a safe environment for visitors.

Both managers and rangers responded similarly; however, rangers on average felt stronger about specific skills than did managers. The five highest ranking skills perceived as important by managers and rangers were communication, public relations, conflict management, Title 36 Rules and Regulations, and water safety (see Table 14). These skills were perceived as important by at least 85 percent of respondents. The lowest ranking skill in importance to respondents was crowd control. Generally, all of the skills in Table 14 were important as suggested by at least 50 percent of respondents; therefore, all the skills seem critical in promoting safety at Corps projects.

Table 14. Skills Ranked in Importance by Managers and Rangers

| <i>Skills</i>                    | <i>Manager<br/>%</i> | <i>Skills</i>                    | <i>Rangers<br/>%</i> |
|----------------------------------|----------------------|----------------------------------|----------------------|
| 1 Communication                  | 98                   | 1 Communication                  | 97                   |
| 2 Public Relations               | 97                   | 2 Public Relations               | 95                   |
| 3 Conflict Management            | 92                   | 3 Conflict Management            | 94                   |
| 4 Title 36 Rules and Regulations | 91                   | 4 Title 36 Rules and Regulations | 92                   |
| 5 Water Safety                   | 85                   | 5 Water Safety                   | 90                   |
| 6 First Aid                      | 79                   | 6 Personal Protection            | 88                   |
| 7 Personal Protection            | 76                   | 7 First Aid                      | 86                   |
| 8 Defensive Driving              | 71                   | 8 First Responder                | 78                   |
| 9 First Responder                | 66                   | 9 Defensive Driving              | 75                   |
| 10 Incident Reporting            | 62                   | 10 Incident Reporting            | 75                   |
| 11 Crowd Control                 | 52                   | 11 Crowd Control                 | 66                   |

#### Course Work and Training

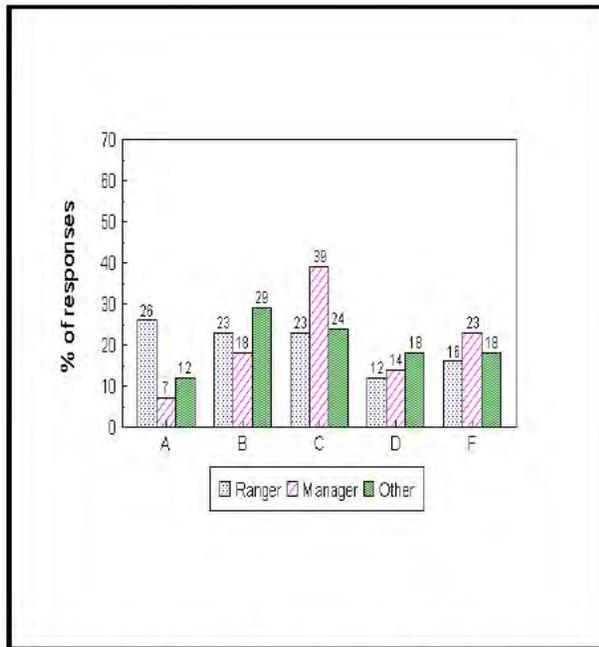
Five different training courses were explored in this study; these courses are taken during employment with the NRMB Branch. The training courses include Visitor Assistance Basic (see Figure 26), Advanced Visitor Assistance (see Figure 27), Personal Protection (see Figure 28), Refresher Visitor Assistance (see Figure 29), and Visitor Assistance Update courses (see Figure 30). Respondents were asked to rate each course with a letter grade (A, B, C, D or F); the grade represented how well the course covered training subject matter and how thorough Corps staff was trained. Ratings of courses fluctuated among managers, rangers and



# The Visitor Assistance Survey Training

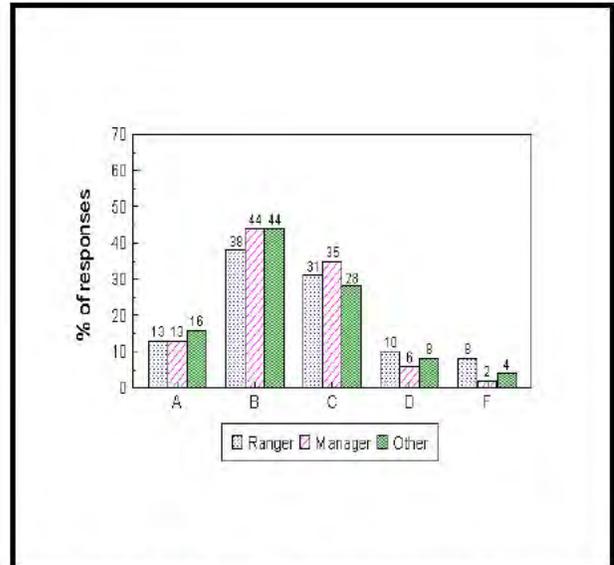
professional project staff.

The most basic of the courses, Visitor Assistance Basic, was rated “F” more frequently than the other courses (see Figure 26). Managers rated this course failing (23%) and “C” (39%) more frequently than did rangers and professional personnel. Rangers reported the most (26%) “A” ratings, and the least (16%) “F” ratings.

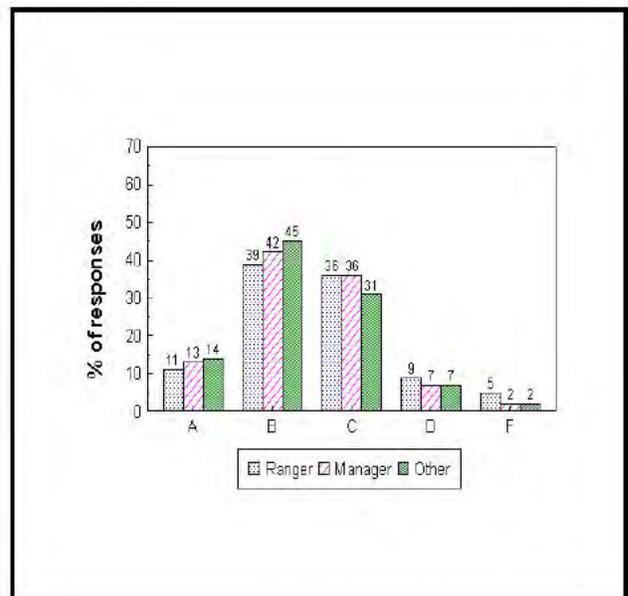


**Figure 26. Visitor Assistance Basic**

The Advanced Visitor Assistance course appears to tell a different story; most responses were within “B” and “C” ratings. Managers, rangers, and professional personnel felt similarly about the course. The Personal Protection Training course rating distributions look similar to the previous course (see Figure 28); again, most responses showed ratings of “B” and “C.”



**Figure 27. Advanced Visitor Assistance Course**

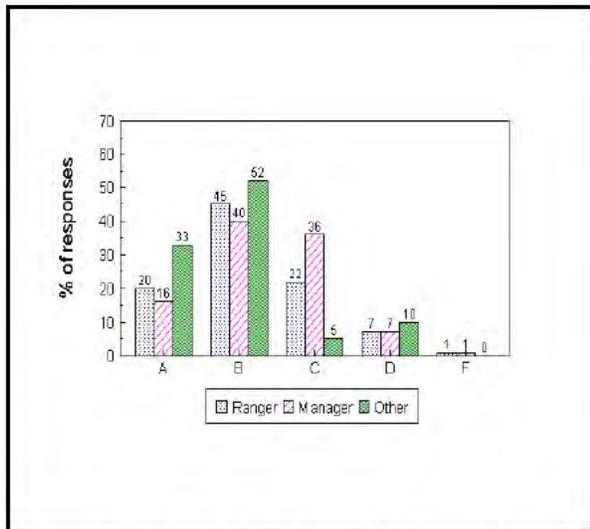


**Figure 28. Personal Protection Course**

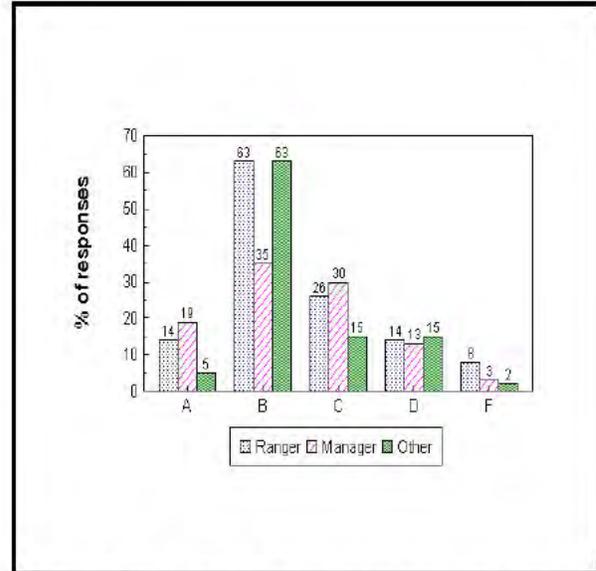


## The Visitor Assistance Survey Training

The Refresher Visitor Assistance Training course rating distribution shows differences in opinions among managers, rangers, and professional personnel (see Figure 29). Managers most frequently rated this course with a “C.” In contrast, for this course rangers and professional personnel displayed the greatest number of “A” and “B” ratings. It appears that professional personnel were much more pleased with the quality of the course than were the remaining project personnel. Last, is the Visitor Assistance Update course (see Figure 30). Results of these responses illustrate that most frequently rangers and professional personnel rated the course a “B”, while managers’ responses did not cluster in any particular rating.



**Figure 29. Refresher Visitor Assistance Course**



**Figure 30. Visitor Assistance Update Course**

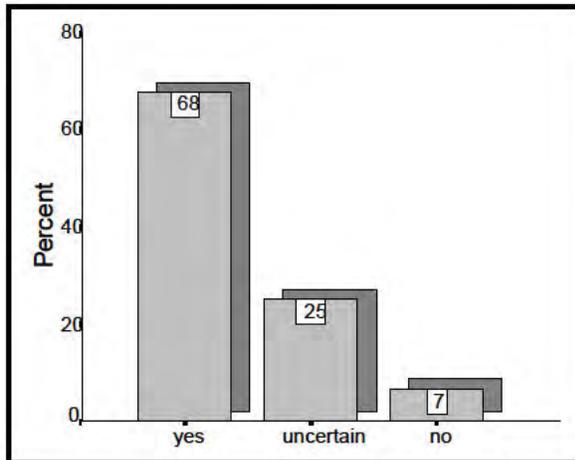
### Additional Training Courses

The overall responses addressing whether there is a need for additional ranger training courses clearly show a need. Sixty-eight percent of respondents who answered the question showed that a need for additional ranger training courses exists, 25 percent were uncertain and 7 percent believed that additional training was not needed (see Figure 31).

Question 25 asked respondents to



## The Visitor Assistance Survey Training

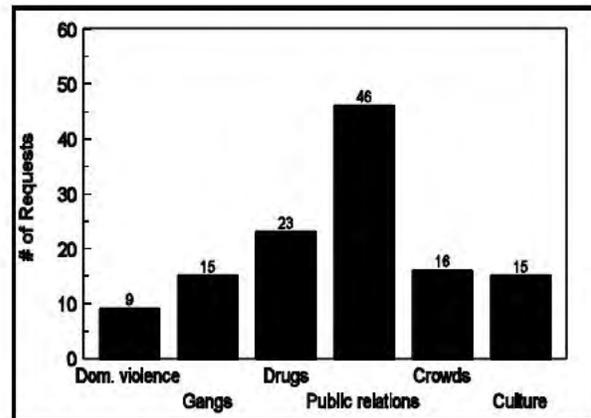


**Figure 31. "Is there a need for additional ranger training courses?"**

specify additional training courses that they wished were provided during training; 890 responses were recorded. The following is an analysis of these responses. Results are expressed as frequencies of requests and as percentages of total requests. Appendix D illustrates the requested topics for additional training courses and the associated frequency distributions.

The most frequently requested course topic was training in dealing with the public and societal problems (124 requests, 14% of all requests). Figure 32 illustrates a break down of these requests. Most respondents wished to have better training in relating to the public (46 requests, 40% of requests for this course type), and in identifying drug and alcohol abuse (23 requests, 20% of requests for this course type). There were roughly equal number of requests for training in crowd control, gangs, and cultural awareness. A handful of respondents wished for training in dealing with domestic violence (9 requests, 8% of requests for this course type).

While participants requested many



**Figure 32. Training Courses that Consider the Public and Societal Problems**

different training topics, combined requests for self defense, communication skills, conflict management, and law enforcement, amounted to over half (470) of all requests (see Figure 33). Requests for additional self defense courses (22% of total requests) more than doubled those for law enforcement (10% of total requests), communication skills (10% of total requests), and conflict management (9% of total requests).

The requests for instruction in law enforcement included a variety of subtopics. There were ninety-six (10%) requests for law and law enforcement. A few of the topics that made up requests for law and law enforcement were. There were several requests for courses in law (12 requests), Corps policy (7 requests), and Title 36 (5 requests). There were also two requests for no training in law enforcement. Several participants also requested a topic closely related to law enforcement (15 requests), they specifically asked for a "ranger academy," which is similar to a police academy



## The Visitor Assistance Survey Training

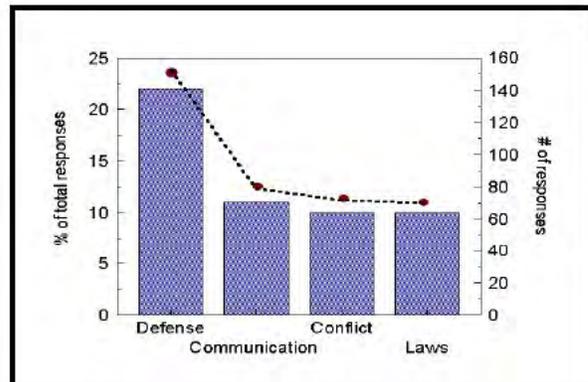
There were also several requests for courses in disaster prevention and training (124 requests, 14% of total requests). Courses of this type included a variety of subtopics. Emergency training was the most frequently requested type of disaster training course requested (41 requests, 33% of requests for courses in disaster prevention and training). Several participants requested training in situation analysis (36 requests, 29% of requests for courses in disaster prevention and training). Situation analysis was defined as learning how to identify and avoid dangerous situations. Several participants felt the need to learn water (24 requests, 19% of requests for courses in disaster prevention and training) and fire safety (14 requests, 11% of requests for courses in disaster prevention and training). Lastly, a few participants wanted courses in defensive driving (9 requests).

### Topics That Need to Be Added to Existing Visitor Assistance Training Courses

Many participants expressed a desire to expand the breadth of Visitor Assistance training courses. Question 23 asked participants to specify topics that they wished to be added to existing Visitor Assistance training courses. There were 698 responses to this question. The following is an analysis of these responses. The results are expressed as frequencies of requests and as percentages of total requests.

Appendix E illustrates the requested topics for training courses and their frequency distribution. The four most frequently requested course topics that comprised at least

10 percent of the total responses are self defense, communication skills, conflict management, and law enforcement (see Figure 33). The most frequently requested course topic was self defense that comprised 22 percent of the total responses to question #23. Many participants expressed a desire to have frequent updates and refresher self defense courses. Furthermore, some participants suggested a need for more in-depth instruction on self defense techniques and requested that the courses be lengthened. Occasionally, the requests for self defense were coupled with requests for crowd control (22 requests, 3% of all requests).



**Figure 33. The Four Most Frequently Requested Training Course Topics (self defense, communication skills, conflict management, laws and their enforcement) expressed as both percentages of the total responses (N=698) and number of responses.**

Communication skills were the next most frequently requested course topic (79 requests, 11% of all requests). Many requested that non aggressive communication skills be taught. The requests for conflict management and law enforcement each



## The Visitor Assistance Survey Training

---

amounted to 10 percent of the total requests. Nearly one-third of the requests for courses in laws and enforcement mentioned Title 36 enforcement (11 requests, 15% of the requests for this type of class) and court room demeanor (11 requests, 15% of the requests for this type of class).

There were numerous requests for courses focusing on situation analysis (45 requests, 6% of the total requests). Many participants expressed a desire to recognize and thus, avoid dangerous situations. Several respondents believed that these dangerous situations were caused by alcohol and drug abuse. Thirty-four requests (5% of total requests) for courses dealing with alcohol and drug abuse reflected perceived dangerousness of alcohol and drugs. Similarly, the requests for training in writing citations and reports were frequent (32 requests, 4% of total requests).

Several participants expressed a need for gang and cult awareness (31 requests, 4% of total requests), specifically, how to deal with gangs safely. Similarly, the requests for training in public relations were frequent (25 requests, 4% of total requests). Related to these topics, several participants stressed the need for cultural awareness (22 requests, 3% of total requests).

Several requests for specific technical training courses were made. The requests for classes in emergency training (14 requests), vehicle stops and approaches (14 requests) and investigation techniques (11 requests) each amounted to two percent of the total requests.

---

**CHAPTER 7****MANAGEMENT and  
RESOURCES**

This chapter addresses management and their level of concern toward safety matters. It also addresses resources used to support daily operations at Corps projects and the adequacy of those resources. How do these issues relate to safety? Since providing safety is explicit in duties that Corps personnel carry out, wherever adequate management/supervisory and resource support are not provided, safety consequently may be threatened.

**Management Concerns About Safety**

Questions on the survey about this topic looked into higher management concern and how supervisors listened. Overall perceptions and group perceptions of managers, rangers and professional personnel were examined. More than 50 percent of all employment groups agreed that higher management was concerned with safety issues, but rangers reported the highest percent (29%) in disagreement (see Figure 34). Nearly 30 percent, (242 rangers) do not believe that higher management is concerned about safety issues that confront Corps projects. This is a problem, failing to show concern implies that these various issues are not important enough to address. Respondents to the questionnaire perceived supervisors to be more attentive than managers to safety concerns raised by rangers. At least, 80 percent of respondents in all three employment categories agreed that supervisors listen (a total of 992 respondents out of 1,215).

**Support Resources**

Support resources refer to monetary or people oriented resources that have been allocated for specific purposes. Factors examined included staffing, general funding, facility improvements, general maintenance funding, policy guidance, contracting assistance, office of counsel assistance, law enforcement agreements, magistrate and US Attorney. Table 15 shows the adequacy ranking of each support resource and the actual percent breakout of each response category. Support resources appeared most adequate for law enforcement agreements but least adequate for staffing. The number of responses addressing staffing is similar across categories of adequacy; overall no strong opinions about the adequacy or inadequacy of staffing support resources exist.

Visitor Assistance Survey  
Resources

Management and

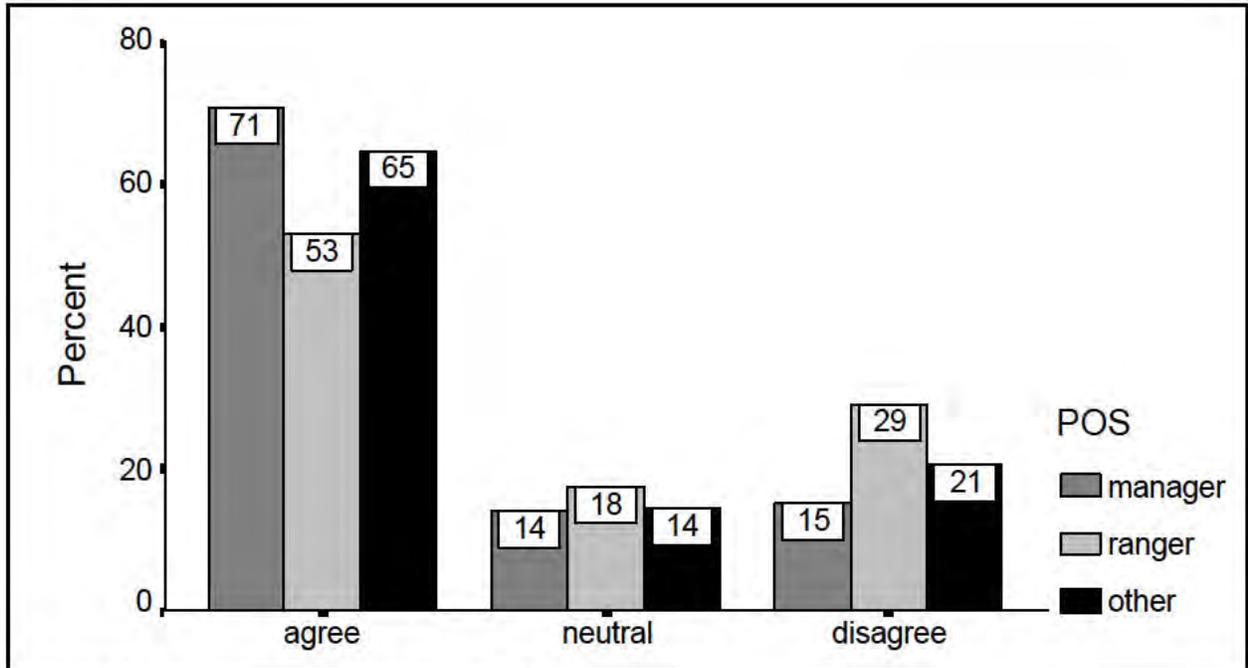


Figure 34. Managements Concern with Safety

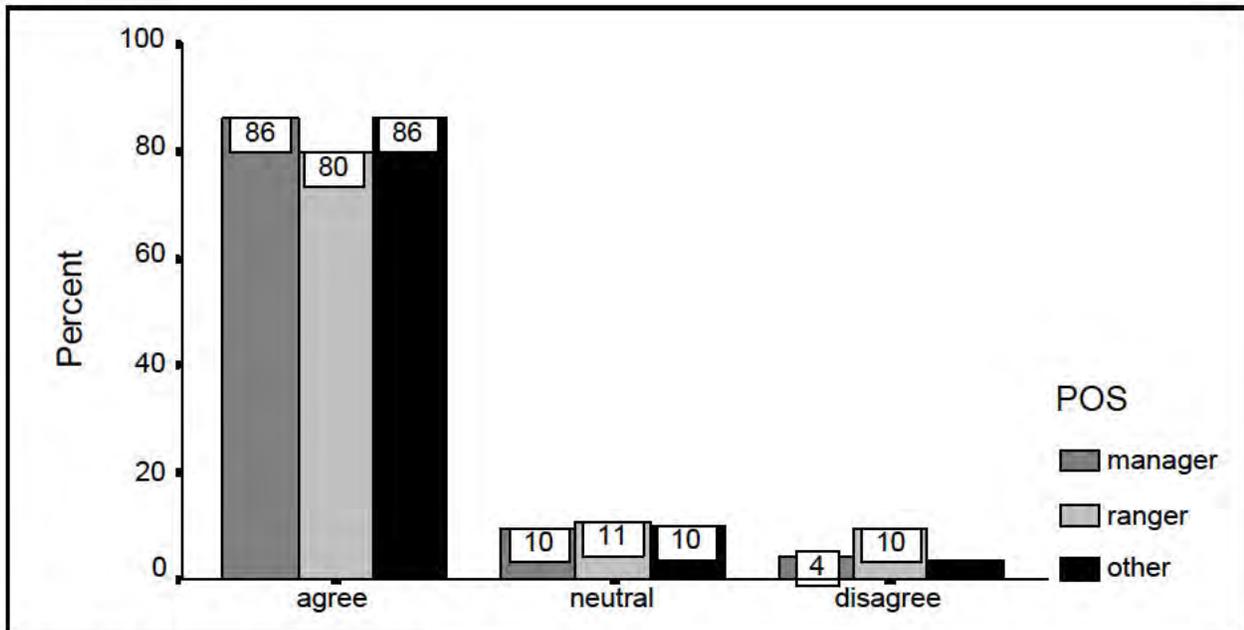


Figure 35. Supervisors Listen

Visitor Assistance Survey  
Resources

Management and

**Table 15. Ranking Adequacy of Support Resources**

|           | <u>Resources</u>             | <u>Adequate</u> | <u>Somewhat Adequate</u> | <u>Inadequate</u> | <u>total %</u> | <u>N=</u> |
|-----------|------------------------------|-----------------|--------------------------|-------------------|----------------|-----------|
| <i>1</i>  | Law Enforcement Agreement    | 59%             | 24%                      | 17%               | 100            | 1219      |
| <i>2</i>  | Magistrate                   | 55              | 28                       | 17                | 100            | 1207      |
| <i>3</i>  | US Attorney                  | 54              | 29                       | 17                | 100            | 1194      |
| <i>4</i>  | Facility Improvements        | 53              | 31                       | 16                | 100            | 1247      |
| <i>5</i>  | Contracting Assistance       | 49              | 34                       | 17                | 100            | 1235      |
| <i>6</i>  | General Maintenance          | 46              | 34                       | 20                | 100            | 1242      |
| <i>7</i>  | Office of Counsel Assistance | 42              | 34                       | 24                | 100            | 1219      |
| <i>8</i>  | General Funding              | 41              | 37                       | 22                | 100            | 1245      |
| <i>9</i>  | Policy Guidance              | 40              | 33                       | 27                | 100            | 1236      |
| <i>10</i> | Staffing                     | 37              | 32                       | 31                | 100            | 1251      |

Visitor Assistance Survey  
Resources

Management and

---

Visitor Assistance Survey  
 Conclusions

---

## CHAPTER 8

### CONCLUSIONS

A significant fraction of rangers consider personal safety to be a problem on the job. Many see the problem as growing worse. Almost two-thirds of the rangers have been verbally abused by visitors in the past three years; more than one in ten has been physically assaulted. Respondents provided their views on how key elements of the Visitor Assistance Program (equipment, law enforcement agreements, training, management, and resources) contribute either positively or negatively to their personal safety and to that of visitors at Corps projects.

Corps personnel generally believe that the public has an unclear image of rangers, seeing them both as law enforcement officials and service oriented visitor assistants. Visitors may not know exactly what role rangers are supposed to play. To manage safety better, visitors should be aware of the limits of a ranger's authority.

Protective equipment perceived as most important was blood borne pathogen protection. The 90's and the results of a rising awareness of diseases transmitted through the blood may be directly related to the popularity of this equipment.

Law enforcement agreements appeared to exist throughout the Corps and the service received because of the agreement appeared mostly adequate. Yet, there were some problems contacting law enforcement 3 out of 10 times. The obvious safety hazard is that during the 3 times when no law enforcement is present, Corps staff and visitors are rendered

vulnerable. The agreements need to be implemented as close to 100 percent as possible, and in possible life threatening situations 30 percent of error should be unacceptable.

Training used to equip staff with skills and knowledge that will enable them to take on ranger duties at Corps projects is a major area of concern. Skills perceived as important by staff were: communication, public relations, conflict management, title 36 rules and regulations, and water safety. Skills such as these are critical to the Visitor Assistance Program and the more thorough the training concerning these skills, the more effective Corps project personnel will be.

Currently, there are five training courses offered to rangers throughout their tenure with the Corps. The worse rated course was the Visitor Assistance Basic Course; better rated courses were Refresher Visitor Assistance, Advanced Visitor Assistance, and Personal Protection Training. The ratings of these courses by project staff, not only shed some light on how well various project staff believe material was covered throughout the course; it also gave a picture of how well the courses trained. Some clear shortcomings exist. Ultimately, the more comprehensive and successful the training, the better staff will be equipped to use their training in unsafe and peculiar situations. Based on rating results of the various courses, Visitor Assistance Basic was rated the worse out of all the courses. Restructuring of this course is warranted.

Concerns about safety and support resources were covered. Both, management and supervisory concerns about safety were

Visitor Assistance Survey  
Conclusions

---

examined. Managers were perceived to be less attentive than supervisors to safety concerns that Corps staff introduced. Management needs to communicate its concern for safety to the workforce more effectively to change this perception.

Corps personnel are faced with potentially dangerous situations from time to time. Some Corps projects inhibit these situations more frequently than others. This study illustrates that visitors and project staff experience verbal abuse, physical threats, and worst yet, physical assaults. Through training, having the appropriate equipment and assistance from the proper agencies, and support of the people they work with, project staff can be better prepared to handle these situations.

Lastly, outside forces that directly or indirectly contribute to abuse and threats of visitors and Corps staff need to be managed differently. Alcohol is a problem. It was considered the number one contributor to “hostile behaviors” by project personnel. A great number believed it should be prohibited at Corps projects. Since the objective is to make Corps projects safer places, then a review of policies on alcohol use is warranted and solutions that will reduce the unsafe situations that visitors and staff have been encountering are essential.

HQ AR000847-HQ AR000857

CECW-ON

10 May 1996

MEMORANDUM FOR COMMANDERS, MAJOR SUBORDINATE COMMANDS

SUBJECT: Recreation Policy Letter 96-01 -- Visitor/Ranger Safety

1. This memorandum provides policy on a number of issues regarding the U.S. Army Corps of Engineers Visitor Assistance Program as it pertains to visitor and ranger safety. These policies are a result of a comprehensive program review conducted by the Visitor/Ranger Safety Review Task Force in 1995. The task force submitted their report of 54 program recommendations in September 1995.

2. The enclosed policy changes are in response to 26 of these recommendations and are effective immediately. These changes will be incorporated into the next update of the appropriate regulations and pamphlets.

3. Decisions in response to the remaining 28 recommendations will follow the receipt of reports from task forces conducting in depth review and analysis of those issues.

Encl

/s/  
STANLEY G. GENEVA  
Major General, USA  
Director of Civil Works

Visitor Assistance Program Policy Changes

ER 1130-2-400, Paragraph 4 (Project Mission) and Paragraph 5 (Program Objectives) are revised as follows:

4. Mission Statement. The mission of the Natural Resources Management Program is:

"The Army Corps of Engineers is the steward of the lands and waters at Corps water resources projects. Its Natural Resources Management Mission is to manage and conserve those natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations.

In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance and restoration practices.

The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector.

The Corps integrates the management of diverse natural reso

5. Program Objectives.

a. The objectives of the Natural Resources Management Program are:

(1) To provide a quality outdoor recreation experience which includes an accessible, safe and healthful environment for a diverse population;

Enclosure 1

Visitor Assistance Program Policy Changes  
Continued

(2) To increase the level of self sufficiency for the Corps recreation program;

(3) To provide outdoor recreation opportunities on Corps of Engineers administered land and water on a sustained basis; and,

(4) To optimize the use of leveraged resources to maintain and provide quality public experiences at Corps water resources projects.

b. To accomplish the program objectives, the Corps manages land and water resources in cooperation with other Federal, State and local agencies, quasi-public organizations and the private sector supplemented by volunteers, contributions and challenge cost sharing programs.

**ER 1130-2-400, Paragraph 12 a. (2) (Outdoor Recreation) is revised as follows:**

(2) Reduce or eliminate public use conflicts by incorporating the management practices identified in Appendix E (Alternative Management Techniques) of ER 1130-2-420 or by applying other measures allowable under authority and policy. Project managers should conduct carrying capacity studies using the Natural Resources Research Program guidance contained in the publication Recreation Carrying Capacity Handbook, Methods and Techniques for Planning Design and Management.

**ER 1130-2-400, Paragraph 12 a. (3) (Outdoor Recreation) is revised as follows:**

(3) Establish a project wide cost effective program to rehabilitate recreational facilities whenever feasible to increase visitor safety and satisfaction while reducing O&M costs. O&M budget Feature Cost Codes 606.1 and 606.3 allow for justified levels of public health and safety at the least cost and Codes 629.1 and 629.9 allow for the insurance of public safety.

**Visitor Assistance Program Policy Changes**  
**Continued**

**ER 1130-2-400, Paragraph 12 (Outdoor Recreation) is revised to include the following additional paragraph:**

d. Night Closures of Day Use Areas. Unattended day-use areas will be closed at night if such a restriction on public access is considered necessary by the manager in order to provide adequate visitor safety and resource protection. Prior to any such closure, consideration will be given to alternatives that accommodate the continued authorized use of the facilities while providing the necessary levels of safety and protection. Users

of those facilities will be fully informed concerning the details of any closure, and wherever appropriate, will be provided opportunities to provide input into such decisions.

**ER 1130-2-400, Paragraph 18 (Sale or Storage of Alcoholic Beverages) is revised to include the following additional paragraph:**

**18. Sale, Storage or Restrictions of Alcoholic Beverages.**  
(new title)

c. District Commanders have the authorization under 36 CFR Chapter III, Part 327.13 (Title 36) to prohibit the possession or use of alcohol at selected areas and projects within their jurisdiction. To determine the need for such restrictions, periodic joint natural resource management and security assessments will be conducted at all water resources development projects, with an annual visitation of 20,000 visitor hours or more, regarding the need to ban alcohol consumption/ possession on project-administered lands and waters. Commanders will insure that initial assessments are completed by 30 May 1997. Additional assessments will be conducted as appropriate.

Visitor Assistance Program Policy Changes  
Continued

ER 1130-2-404, is revised to include the following additional paragraph:

17. Security Measures.

a. Managers will comply with Army regulations governing the security and storage of funds, particularly AR 37-103, Disbursing Operations for Finance and Accounting Offices.

b. As a minimum, managers will consider the following options to enhance the security of personnel handling funds as well as safeguarding the funds themselves:

(1) Collect and deposit funds frequently to reduce the amount stored on-hand.

(2) Vary the times of collection and deposit to avoid developing patterns and becoming a target.

(3) Vary the routes to and from collection and deposit, if possible, to avoid patterns.

(4) Maximize the use of credit cards to reduce the cash stored on hand.

(5) Contract for private security to collect and deposit funds.

(6) Include collection and deposit of funds in cooperative law enforcement agreements.

(7) Ensure personnel collecting and storing funds work in pairs and have reliable communication equipment (radios or cellular phones) available at all times.

c. District security managers will assist operations project managers in assessing the criminal threat to their operation and recommending protective measures.

d. District security managers will review the security of personnel and funds during biennial physical security inspections.

Visitor Assistance Program Policy Changes  
Continued

ER 1130-2-418, Paragraph 5 (Policy) is revised to include the following additional paragraph:

f. In addition to the enforcement of state or local laws, cooperative agreements for law enforcement services may be used

for other related activities such as, but not restricted to, patrols in remote areas, serving bench warrants, fee collection and other services, as determined by the project manager. The activities included in an agreement are dependent on what can be negotiated with the law enforcement agency. In no case will agreements include the provision of water safety patrols or the enforcement of state boating laws.

**ER 1130-2-420, Paragraph 5 (Policy) is revised as follows:**

5. Policy. It is the policy of the Corps of Engineers to provide safe and healthful recreation opportunities while protecting and enhancing project resources. The protection of facilities or the enforcement of rules will always be secondary to the safety of Corps personnel, contract employees, and visitors. Managers and rangers will strive to be visible to the public, primarily to help and assist them, and secondarily, to enforce 36 CFR Chapter III, Part 327 (Title 36).

(Note: Paragraphs 5 a. and 5 b. remain unchanged)

c. The role of the ranger is defined as a Regulation Enforcer with full citation authority of 36 CFR Chapter III, Part 327. Available use of force options includes visual presence, verbal persuasion/detention and unarmed self defense. The authority of managers and park rangers is limited to the enforcement of rules and regulations as designated in Title 36 and does not extend to arrest authority or the enforcement of state and local laws, including game laws. This authority is applicable to:

(1) All water areas of any water resource development project administered by the Chief of Engineers, without regard to ownership of underlying land;

**Visitor Assistance Program Policy Changes**  
**Continued**

(2) All lands owned in fee by the Federal Government; and,

(3) All facilities of any such water resources development project.

**ER 1130-2-420, Paragraphs 11 b,c,d (Vehicles and Vessels), are revised as follows:**

b. Manager and ranger vehicles and vessels may be equipped with a fixed spot light on the operator's side. Vehicles may be equipped with a single removable warning light which is acceptable to the states in terms of color and placement. Lights mounted behind the grill, which are inconspicuous to the public

when not in use, are authorized. Fixed roof or external grill-mounted warning lights are not authorized. The purpose of this equipment is for visitor assistance and not the enforcement of state/local laws. District offices will periodically review the use of these lights to ensure compliance with this paragraph.

c. Managers may equip vehicles and vessels with a public address system and warning siren. The equipment will not be visible to the public and will be used with discretion in emergency situations. Exceptions may be made for vessels depending upon the size and design of the hull.

d. All manager and ranger vehicles will be equipped, at a minimum, with first aid kits, fire extinguishers, blood-borne pathogen handling kits, rescue throw bags, binoculars, camera and flash light. All vessels will be furnished with the same equipment except that they will have US Coast Guard and state-required safety equipment, marine-use fire extinguishers and/or pumps. Districts and projects may provide additional equipment for manager and ranger vehicles and vessels as required.

**Visitor Assistance Program Policy Changes**  
**Continued**

**ER 1130-2-420, Paragraph 12 (Communications), is revised as follows:**

12. Communications.

a. Managers will provide reliable communication equipment in support of natural resources management activities. Authorized communication equipment may include cellular phones and multiple frequency programmable scanning radios (fixed and hand held) with local/state law enforcement interface, state wildlife/boating officer interface, appropriate rescue/fire interface, weather channels, and separate frequencies for overlapping projects. Corps base stations may be located off project lands and local law enforcement agency base stations may be placed on Corps property, as necessary, to obtain reliable communications.

b. Managers will determine the most reliable communication system for their project. However, if radios are selected over cellular phones, project managers will ensure that a base station is staffed continuously while personnel are on duty in the field. If continuous staffing is impossible, cellular phones should be provided.

c. Park attendants will be provided with either telephone or radio communication system to enhance their safety as well as that of visitors. When warranted, park attendants may be issued portable radios.

d. The installation of public telephones at entrance stations, beaches, and other public use areas is encouraged to enhance visitor safety. Where feasible, telephones should permit the caller to contact the operator without depositing coins. A listing of appropriate emergency telephone numbers such as fire, medical, police, rescue, and Corps officials should be placed in recreation areas near the location of public telephones.

e. District commanders will ensure that surveys are conducted periodically to confirm that reliable communication equipment is available to personnel, is located in vehicles and vessels, and is in serviceable condition.

**Visitor Assistance Program Policy Changes**  
**Continued**

**ER 1130-2-420, Paragraph 13e (Other Training), is revised as follows:**

e. Other Training.

(1) All personnel performing visitor assistance duties must

receive a minimum of 24 hours of personal protection/unarmed self defense, situation evaluation and tactical communication training within two years of employment. This training can be obtained through HQUSACE-sponsored courses (where available) or locally-sponsored courses. Local courses must strictly adhere to Corps authority and policy and must be approved by HQUSACE prior to implementation. Instructors must be fully knowledgeable and supportive of the philosophy, objectives and authority limitations of the visitor assistance program.

(2) Managers and supervisors will assure that individuals who perform Visitor Assistance duties are provided first aid, cardiopulmonary resuscitation, blood-borne pathogen and other appropriate health training, and offered preventive inoculations in order that they be qualified to perform immediate, on-site emergency medical treatment to injured personnel and visitors. Employees shall receive the equivalent of Red Cross Advance First Aid and Emergency Care course. Increased first aid training up to Emergency Medical Technician Basic (EMT Basic) is authorized for a minimum number of selected permanent staff members at the discretion of the manager. Refresher medical training may be required to maintain certification.

(3) Obtaining preventive inoculations for blood-borne pathogens is a condition of employment for park rangers and other personnel with visitor assistance responsibilities who are hired on or after the effective date of this policy.

(4) To complement visitor assistance training, manager and permanent ranger personnel shall receive, at the district or project level, training on defensive driving, cultural resource protection, historic property protection, water safety, and boat licensing and operation. Where necessary, training in a second language other than English is highly recommended.

**Visitor Assistance Program Policy Changes**  
**Continued**

**ER 1130-2-420, Paragraph 13 (Training) is revised to include the following additional paragraph:**

g. All Natural Resource Management program staff shall receive training in accordance with this paragraph and EP 690-2-2, Career Development Guide for Civil Works Natural Resources Management Team Members. Project managers are responsible for ensuring that permanent, seasonal and temporary rangers with visitor assistance responsibilities receive the prescribed training. Temporary employees who perform visitor assistance duties and enforce Title 36 will receive the same visitor assistance training provided to permanent and seasonal rangers with similar duties.

CECW-ON  
SUBJECT: RECREATION POLICY LETTER 96-01 -- VISITOR/RANGER  
SAFETY

WAHUS/761-1790  
FILE: POLICY3.WPD  
T: 22 APR 96

LEWIS  
CECW-ON

TRENT  
CESO

FLEMING  
CEPM

KROMBINE  
CECC-K

BURNS  
CECW-O

GRAF  
CECW-ZC

D'ANIELLO  
CECW-AB

HQ AR000858-HQ AR001380

**VISITOR AND RANGER SAFETY REVIEW  
FINAL REPORT - SEPTEMBER 1995**

**TABLE OF CONTENTS**

**CHAPTER I - INTRODUCTION**

|    |   |       |
|----|---|-------|
| 1. | Background: . . . . .                             | I - 1 |
| 2. | HQ Plan of Action: . . . . .                      | I - 1 |
| 3. | Steering Committee: . . . . .                     | I - 1 |
| 4. | Visitor/Ranger Safety Review Committee: . . . . . | I - 1 |
| 5. | Charter: . . . . .                                | I - 1 |
| 6. | Purpose and Scope: . . . . .                      | I - 2 |

**CHAPTER II - STUDY PROCESS**

|    |   |        |
|----|---|--------|
| 1. | NRM Survey: . . . . .                                       | II - 1 |
| 2. | Visitor/Ranger Safety Conference: . . . . .                 | II - 2 |
| 3. | Corps Audit: . . . . .                                      | II - 2 |
| 4. | Committee Meetings: . . . . .                               | II - 3 |
| 5. | Other Federal Agencies: . . . . .                           | II - 3 |
|    | a. Forest Service . . . . .                                 | II - 4 |
|    | b. Tennessee Valley Authority: . . . . .                    | II - 5 |
|    | c. Bureau of Reclamation: . . . . .                         | II - 5 |
|    | d. National Park Service: . . . . .                         | II - 5 |
|    | c. Bureau of Land Management: . . . . .                     | II - 6 |
|    | d. Fish and Wildlife Service: . . . . .                     | II - 6 |
| 6. | Visitor Assistance Course Instructors: . . . . .            | II - 7 |
| 7. | Customer Feedback Process: . . . . .                        | II - 7 |
| 8. | Other Related Studies and Reports . . . . .                 | II - 8 |
|    | a. Division Task Force Visitor Assistance Reviews . . . . . | II - 8 |
|    | b. Law Enforcement Reporting Task Force: . . . . .          | II - 8 |
|    | c. Safety Office: . . . . .                                 | II - 9 |
|    | d. WES/NRRP Research: . . . . .                             | II - 9 |

- e. Report of the Secretary of the Army to the Congress on Visitor Protection Services at Corps of Engineers Lakes, December 1974: . . . . II - 10
- f. Report to the Congress by the Comptroller General of the United States, Crime in Federal Recreation Areas-A Serious Problem Needing Congressional and Agency Action, June 21, 1977 . . . . II - 10
- g. National Crime Reports: . . . . . II - 10
- h. Career Development Guide for Civil Works Natural Resources Management Team Members, EP690-2-2 . . . II - 11
- i. National Operation and Maintenance Program Plan of Improvement: . . . . . II - 11
- j. Peer Review: . . . . . II - 11

**CHAPTER 3 - PRIMARY ISSUES**

- 1. Role of the Ranger . . . . . III - 2
- 2. Training . . . . . III - 4
  - a. Training for Permanent Rangers . . . . . III - 6
  - b. Refresher Training . . . . . III - 9
  - c. Training for Temporary Employees . . . . . III - 10
  - d. Other Local Training . . . . . III - 12
- 3. Equipment . . . . . III - 14
  - a. Personal Safety Equipment . . . . . III - 14
  - b. Communication Equipment . . . . . III - 18
  - c. Vehicles . . . . . III - 20
- 4. Personnel Issues . . . . . III - 23
  - a. Skills of the Ranger . . . . . III - 23
  - b. Professional Series . . . . . III - 24
  - c. Background Checks . . . . . III - 26
  - d. Staffing Levels . . . . . III - 26
- 5. Court System: . . . . . III - 29
- 6. Title 36: . . . . . III - 31
- 7. Organization/Structure: . . . . . III - 33
  - a. Commitment to Ranger Safety . . . . . III - 35
  - b. Information Network: . . . . . III - 36
- 8. Park Design, Operations and Management: . . . . . III - 38
  - a. Park Design . . . . . III - 38
  - b. Overcrowding . . . . . III - 40
  - c. 24-Hour Park Operations . . . . . III - 41
  - d. Alcohol Use . . . . . III - 42
  - e. Contract Park Attendant Safety . . . . . III - 43

|     |  |          |
|-----|--|----------|
| f.  | Collection and Transportation of Cash . . . . .                    | III - 44 |
| g.  | Interpretation . . . . .   | III - 45 |
| 9.  | National Crime Information Center (NCIC) . . . . .                 | III - 46 |
| 10. | Crime in the Parks . . . . .                                       | III - 49 |
| a.  | National Crime Trend Data Sources . . . . .                        | III - 50 |
| b.  | Uniform Crime Report . . . . .                                     | III - 50 |
| c.  | National Crime Victimization Studies . . . . .                     | III - 51 |
| d.  | Summary of National Crime Trends . . . . .                         | III - 52 |
| e.  | Assaults of Federal Officers . . . . .                             | III - 56 |
| f.  | Comparative Analysis of NPS and National<br>Crime Trends . . . . . | III - 63 |
| g.  | Statistics from Corps Projects . . . . .                           | III - 63 |
| h.  | Conclusion . . . . .   | III - 68 |
| 11. | Incident Reporting and Data Needs . . . . .                        | III - 68 |
| 12. | Level of Authority . . . . .                                       | III - 73 |

**CHAPTER IV - ALTERNATIVES**

|    |  |         |
|----|--|---------|
| 1. | Alternative I - Decrease Level of Enforcement . . . . .  | IV - 2  |
| 2. | Alternative II - Maintain Status Quo . . . . .   | IV - 4  |
| 3. | Alternative III - Modify the Visitor Assistance<br>Program . . . . .                             | IV - 6  |
| 4. | Alternative IV - Expand Law Enforcement Cooperative<br>Agreements . . . . .                      | IV - 9  |
| a. | Alternative IV-A - Expand Existing Subsidized<br>Law Enforcement Cooperative Agreements. . . . . | IV - 11 |
| b. | Alternative IV-B - Form Agreements with States<br>for Water Patrol. . . . .                      | IV - 13 |
| c. | Alternative IV-C: Contract With Private Sector<br>for Revenue Collection and Security. . . . .   | IV - 14 |
| d. | Alternative IV-D: Contract with State<br>Agencies . . . . .                                      | IV - 15 |
| 5. | Alternative V - Pilot Study . . . . .  | IV - 16 |
| 6. | Alternative VI - Commissioned Rangers . . . . .  | IV - 19 |
| 7. | Selection of Alternatives: . . . . .   | IV - 21 |

**CHAPTER V - RECOMMENDATIONS**

|    |   |       |
|----|---|-------|
| 1. | Recommendations and HQUSACE Decision Matrix . . . . . | V - 3 |
|----|---|-------|

## CHAPTER I - INTRODUCTION

**1. Background:** HQUSACE initiated a comprehensive review of the Visitor Assistance Program with specific emphasis on visitor and ranger safety. This review is a result the Corps commitment to provide safe and healthful recreation opportunities as well as responding to concerns of ranger safety from the field.

**2. HQ Plan of Action:** On 4 November 1994, Dr. John H. Zirschky, Acting Assistant Secretary of the Army, approved a CECW-ON plan to conduct a thorough review of visitor and ranger safety at Civil Works projects. This plan included establishing a HQUSACE Steering Committee and a Review Committee; surveying Natural Resource Management (NRM) team members; conducting an independent review by the Corps Audit Office; sponsoring a ranger/manager conference; developing recommendations; and implementing approved recommendations. The approved review schedule, tasks and milestones are found in Appendix A.

**3. Steering Committee:** The members of HQUSACE Steering Committee are as follows.

|                      |                                |
|----------------------|--------------------------------|
| Darrell Lewis, Chair | Chief, NRM Branch              |
| Dave Wahus           | Chief, Recreation Program Sec. |
| Captain Amy Flint    | Law Enforcement Officer        |
| Sam Crispin          | Safety Office                  |

**4. Visitor/Ranger Safety Review Committee:** The make-up of the Visitor/Ranger Safety Review Committee includes a division and a district representative, two managers, three rangers, a district Safety Officer and a division Provost Marshal as follows:

|                    |                                  |                     |
|--------------------|----------------------------------|---------------------|
| Peg O'Bryan, Chair | Missouri River Division          |                     |
| Roger Hayes        | St. Louis District               |                     |
| Roger Deitrick     | Nashville District               | Nashville Area Off. |
| Bill Collins       | Fort Worth District              | Grapevine Lake      |
| Billye Fears       | Tulsa District                   | Ft. Gibson Lake     |
| Terry Ramsey       | Wilmington District              | John H. Kerr Lake   |
| Jon Hiser          | Little Rock District             | Norfolk Lake        |
| Emmett Forte       | Nashville District               |                     |
| LTC Richard Miller | Lower Mississippi River Division |                     |

**5. Charter:** The Visitor/Ranger Safety Review Committee was

tasked with identifying issues, options and solutions; evaluating options and solutions; developing recommendations for HQUSACE/ASA approval; assisting CECW-ON in developing policy guidance; and assisting CECW-ON in monitoring and adjusting the program after implementation.

**6. Purpose and Scope:** The purpose of this report is to summarize the review efforts, solicit field review and to formally make recommendations to HQUSACE for consideration. This report does not include implementation strategies. The scope of this study was limited to those issues and potential solutions that were specifically related to visitor or ranger safety.

## CHAPTER II - STUDY PROCESS

The Review Committee used the HQ plan of action as guidance in developing a process to study the issues associated with visitor and ranger safety. Additional sources of input were also used to help identify and evaluate issues, options and solutions. The following paragraphs summarize the data collection methods.

**1. NRM Survey:** HQUSACE authorized the Institute for Water Resources (IWR) to conduct a Visitor Assistance Survey that would quantify the extent of safety concerns of NRM personnel, visitors and gate attendants from the viewpoint of NRM personnel. The survey was designed to develop a representative statistical database upon which NRM management decisions can be made. A sample size of 1,709 included park rangers and managers and district/division NRM personnel. A total of 1,267 questionnaires were returned for a response rate of 74%. Survey questions included demographic characteristics, perceptions of safety, the visitor assistance program, communication and personal equipment, law enforcement agreements, training, and management. The Visitor Assistance survey addressed seven research objectives:

- ▶ Define the basic demographic characteristics of NRM personnel answering the survey.
- ▶ To clarify the perceptions of ranger, visitor, and gate attendant safety at Corps projects.
- ▶ To clarify the general perceptions of visitor assistance at Corps projects.
- ▶ To investigate the opinions of NRM personnel concerning the adequacy of personal and communications equipment used by NRM personnel for visitor assistance operations.
- ▶ To investigate NRM personnel's views on the effectiveness of law enforcement agreements at Corps projects.
- ▶ To obtain NRM personnel's view on ranger training courses.
- ▶ To seek opinions from NRM personnel on staff interactions and the adequacy of support resources.

The results of the survey and written comments from the respondents have been incorporated into the discussions of the primary issues found in Chapter III. The survey report and analysis prepared by IWR is found in Appendix B.

**2. Visitor/Ranger Safety Conference:** A conference for field rangers and managers was held in Omaha, Nebraska, 4-7 April 1995. The purpose of the conference was to identify the issues surrounding visitor and ranger safety from the project level perspective and to develop recommended solutions to minimize risk to visitors and rangers. A total of 53 rangers and managers representing 26 districts attended. There was no district or division representation. The Review Committee members served as recorders during the conference. HQUSACE Steering Committee attended the opening and closing sessions. Additionally, the lead PROSPECT instructors observed the workshop sessions.

Working in groups, the rangers and managers identified over 100 issues related to visitor and ranger safety. These issues were consolidated, merged and prioritized. Overwhelmingly, the top two issues were the "Role of the Ranger" and "Training". Potential solutions for the top 16 issues were further discussed and a simple vote on support for each solution was recorded. The top 16 issues in order of priority were: Role of the Ranger, Training, Commitment to Ranger Safety, Equipment, Staffing, Societal Changes, Law Enforcement Contracts, Magistrate Court, Lack of Organizational Consistency/Uniformity throughout the Corps, Access to National Crime Information Center (NCIC), Park Design, Personal Safety, Vehicle Identification, Full Law Enforcement Authority, Liability, and Drug/Alcohol Related Problems.

Each participant was asked to provide their top three visitor/ranger safety recommendations and to define the "role of the Corps ranger" in the year 2000 and beyond. The conference discussions have been incorporated into the issues found in Chapter III.

**3. Corps Audit:** Mr. Charles Creech of the HQUSACE Audit Office performed an independent evaluation of park ranger and visitor related safety and security issues. The overall purpose of the audit was to evaluate compliance with provisions of Section 234 of the Flood Control Act of 1970, Public Law 91-611 (84 Stat. 1818), and HQUSACE policies, procedures, criteria, and safety guidelines.

The evaluation focused on the Visitor Assistance Program prescribed by ER 1130-2-420, 1 November 1992); Law Enforcement Cooperative Agreements prescribed by ER 1130-2-418, 1 February 1984; Uniforms for NRM program, ER 1130-2-442, 1 October 1991; Sign Standard Manual, EP 310-1-6a/6b. More emphasis was devoted to the Visitor Assistance Program because of the importance of park ranger safety and security, interest from ASA(CW) and

limited review time.

Ten projects in five districts, selected by CECW-ON, were evaluated, with the on-site time at each project limited to approximately one and one-half days. These projects were: J. Percy Priest and Old Hickory Lakes in Tennessee; Lakes Sidney Lanier and Allatoona in Georgia; Milford and Perry Lakes in Kansas; Saylorville and Red Rock Lakes in Iowa; and Grapevine and Canyon Lakes in Texas.

Interviews with District and project NRM staff were conducted. Documents pertaining to the Visitor Assistance Program, Law Enforcement Agreements, Uniforms and Project Sign Programs were reviewed and discussed. The evaluation was performed in accordance with the Government Auditing Standards issued by the Comptroller General of the United States. Report No. AOI95-002-01, Evaluation of USACE Park Ranger and Visitor Safety Issues at Selected Civil Works Projects is found in Appendix C. The audit results have been incorporated into the issues found in Chapter III.

**4. Committee Meetings:** The Review Committee met with the Steering Committee to develop a study plan for this comprehensive review of the Visitor Assistance Program. The Review Committee met several times to assimilate, analyze and discuss the various sources of input and to prepare a draft report for field review. Comments from the field were incorporated into a final report for the Steering Committee.

**5. Other Federal Agencies:** Many survey respondents commented that the Corps of Engineers is the only Federal land management agency lacking its own law enforcement arm. The committee's review found that the Bureau of Reclamation does not have a law enforcement arm. Throughout the evolution of the Visitor Assistance Program, the Corps of Engineers, has made a conscious decision to approach law enforcement differently from other federal agencies. One of the primary reasons given for this departure from the norm, is that the Corps only acquired proprietary interests during acquisition of fee lands. Other federal agencies have either exclusive jurisdiction, concurrent jurisdiction, proprietary interests or a combination. Even within a one agency, such as the National Park Service, there are varying types of jurisdiction. The NPS is currently seeking concurrent jurisdiction in some areas where they have exclusive jurisdiction.

The primary missions of other federal agencies varies from preservation of natural, historic and cultural resources to fish

and wildlife management. However, the common mission among all agencies is providing safe recreation opportunities that are compatible with other agency missions.

Regardless of the agency jurisdiction and mission, the question remains, "Is the visitor to Corps' projects unique from the visitor that frequents other federal parks?" The committee, as well as many of the field rangers, felt that a review of the law enforcement programs by the other federal agencies warranted analysis. A summary table of key elements in the various federal agencies law enforcement program is listed below.

Table 2-1

| COMPARISON OF FEDERAL LAND MANAGEMENT AGENCIES<br>LAW ENFORCEMENT PROGRAM |                                 |                                   |                              |                              |
|---|---------------------------------|-----------------------------------|------------------------------|------------------------------|
| AGENCY  | COMMISSIONED OFFICERS           | SEPARATE LAW ENFORCEMENT DIVISION | MINIMUM TRAINING REQUIREMENT | MANDATORY REFRESHER TRAINING |
| NPS   | YES                             | YES                               | 11 Week                      | 40 Hrs Annual                |
| USFWS   | YES                             | YES                               | 11 Week                      | 40 Hrs Annual                |
| USFS  | YES                             | YES                               | 11 Week                      | 40 Hrs Annual                |
| BOR   | NO (Except for 2 at Hoover Dam) | N/A                               | N/A                          | N/A                          |
| BLM   | YES                             | YES                               | 11 Week                      | 40 Hrs Annual                |
| TVA   | YES                             | YES                               | 11 Week                      | 40 Hrs Annual                |
| COE   | NO                              | NO                                | 36 hours                     | NONE                         |

Significant changes in some of the federal land management agency law enforcement programs have occurred within the last few years.

**a. Forest Service:** Congress recently authorized a separate Law Enforcement and Investigative Services section of

the USFS that reports directly to their headquarters. "Commissioned" law enforcement personnel no longer function under the supervision of local District Rangers/Managers. This change in policy occurred due to strong political influences. Each forest normally includes one Special Agent and approximately five commissioned officers from the Law Enforcement and Investigative Services section. The USFS Protection Officers are similar to Corps rangers in that they have the authority to issue citations for minor violations of "regulations". They are not to get involved in any actions that could escalate into a dangerous situation. They are not to engage in enforcement actions at night, do not make traffic stops, do not have blue lights, etc. These employees undergo minimal level training of a 40 hour in-house courses developed by each region.

**b. Tennessee Valley Authority:** Presently, TVA is going through a restructuring and the policies and regulations are being revised. They use to be special officers of the states of Tennessee and Kentucky. Their authority is now by federal law. The new TVA board wants to have one TVA Police Force and an unarmed security group for offices. The Land Between the Lakes' officers will be a part of the new TVA Police Force. They have recently completed testing and physicals and have ordered new uniforms. Their role will be basically the same, but their area of responsibility will increase to include power plants, transmission lines, substations, etc. They will still enforce fish and wildlife laws.

**c. Bureau of Reclamation:** A separate Police force (two officers) at Hoover Dam was established through legislation in about 1974. These officers have full enforcement authority, and are the only enforcement personnel within the BOR. Their rangers do not even have citation authority. The BOR is actively seeking legislation to establish regulations and a law enforcement program. The proposal essentially has no support from Department of Justice. DOJ cited a 1984 Executive Order which apparently directed DOJ to control the proliferation of police powers within the federal government. There presently is an ongoing effort to unify the law enforcement programs of the various agencies within the Department of Interior.

**d. National Park Service:** The NPS law enforcement program has recently been revamped. It now falls under the 6(c) Federal Coverage. Under this, all NPS rangers with over 50% of their duties as law enforcement are recognized as "Federal Law Enforcement Officers" for the purpose of early retirement, training, pay, etc. The NPS employs Level 1, fully commissioned employees and Level 2, auxiliary type employees with minimal

training. In January of 1993, the "National Park Service Organizational Position Paper on Law Enforcement in the Protection Ranger Work Force" was approved. The position paper defines the mission and goals of the NPS law enforcement program, reconfirms their fundamental mission of resource conservation and identifies the role of NPS law enforcement as an essential tool for accomplishing objectives of park resource and visitor protection; states the agency support for park staff members assigned to law enforcement duties; and establishes a management position defining what constitutes an NPS law enforcement offices. The NPS has initiated a Law Enforcement, Operational Program Improvements which will include major revision to the NPS-9 policy manual to include an updated needs assessment, improved standards for eligibility, issuance and accountability of law enforcement credentials and provisions for appropriate pay and benefits.

**e. Bureau of Land Management:** The Bureau has had fully commissioned rangers and special agents since the inception of its law enforcement program in 1974. Rangers are highly visible, with uniforms and marked vehicles. Preventing law violations and assisting visitors and other users are the main focus of the Ranger's job. In addition to the 11 week Basic Law Enforcement for Land Management Agencies course taught at FLETC, Rangers attend the Bureau's 40 hour Introduction to Resource Protection course and also receive training in search and rescue operations, visitor information services, accident and hazard reduction and investigation, and other duties. Special Agents are responsible for enforcing Federal laws and regulations relating to public lands and resources. This includes conducting criminal investigations and the arrest of violators. Law enforcement in the BLM is a staff function with Rangers reporting to Area Managers and Special Agents reporting to the State Office. Ranger and law enforcement policies and procedures are currently being revised, with the last revision having been done in 1984. The BLM also has law enforcement cooperative agreements.

**f. Fish and Wildlife Service:** The Fish and Wildlife Service has fully commissioned officers at its refuges and a separate special investigation branch. The number of commissioned officers varies from refuge to refuge, however, all officers who perform law enforcement duties are fully commissioned and trained. The USFWS demonstrates "power down" in its most basic form, in that the discretion to wear firearms, carry pepper spray, etc. is at the refuge level. When officers are doing resource management type work, they are usually not carrying a weapon and the badge is often in their pocket.

In summary, although each Federal land management agency has some differences in their reporting structure, all agencies who have commissioned law enforcement officers are in a separate division within the agency. Further, initial training at the Federal Law Enforcement Training Center (FLETC) is mandatory as well as annual refreshers for commissioned officers. Federal agencies, for one reason or another, have recently undergone policy and organizational changes relative to their law enforcement programs. The other federal agencies have realized that in order to manage the resources and to provide visitor and ranger protection, changes in their enforcement program from non-law enforcement personnel to law enforcement personnel had to be addressed.

**6. Visitor Assistance Course Instructors:** In addition to attending the Visitor and Ranger Safety conference, Mr. Dan Troglin, lead PROSPECT Visitor Assistance instructor, provided valuable insight into the evolution of the Corps ranger training and the latest revision of ER 1130-2-420. Student evaluations of the basic PROSPECT Visitor Assistance course were reviewed. A member of the Review Committee attended the June 1995 meeting of Prospect Instructors to gain input from the instructors. Their comments have been incorporated into Chapter III.

**7. Customer Feedback Process:** Dr. Zirschky, Acting Assistant Secretary of the Army (Civil Works) provided the following policy direction on 5 October 94. "The overall goal is to provide better customer service, remembering that our customers include both local sponsors and taxpayers....a commitment to our customers, sponsors and taxpayers, to provide good service. All levels have a stake in providing such a service." Further, LTG Williams provided guidance on a customer service initiative (21 November 94). HQUSACE memorandum dated 12 September 1994 (Appendix D) to ASA (CW) included implementing a customer feedback process to gather recommendations from project visitors as a major action item.

The Natural Resources Technical Support (NRTS) Program and Natural Resources Research Program (NRRP) are each examining customer services and satisfaction, including safety and security at the project level. The NRTS effort is producing a customer services plan that managers can implement within one year with little outside help. A NRRP work unit is performing a larger three-year effort that will fine-tune the NRTS-developed materials to meet the needs of major market segments for camping, boating, day-use and other activities. This capability for improving customer services should be available for project level use in 1996.

The Review Committee felt it was extremely important to survey our customers to determine their perceptions of safety and security. This can be implemented by coordination with the NRRP to achieve desired outcome in their current work unit that is investigating customer satisfaction or task the NRRP, NRTS or IWR to develop a separate survey, possibly similar to the Visitor Perception Survey conducted in the 1980s by the NRRP.

One of the key contentions expressed by the field rangers is that the visitor perceives rangers as law enforcement officers and expects rangers to respond to a multitude of situations in a law enforcement capacity. A NRRP work unit titled, "Recreation Planning, Management, for Visitor Safety and Security," was performed at WES in the early 1980s. The work unit identified that 42 percent of the visitors thought that rangers have the same authority as police officers; 36 percent were uncertain. Only 22 percent of visitors knew that Corps rangers do not have the same authority as police officers. (Appendix E)

A local survey in the Tulsa district conducted by a graduate student in 1994 indicated that 90% of the visitors believed park rangers to be law enforcement officers. (Appendix F)

## **8. Other Related Studies and Reports**

### **a. Division Task Force Visitor Assistance Reviews:**

In the past few years, several divisions initiated studies resulting from concerns of ranger safety. The reports generated by South Atlantic Division and Southwestern Division were reviewed by the committee. (Appendix G) Both task forces identified training and equipment needs as primary areas of concern. Their recommendations have been incorporated into the discussion of issues found in Chapter III.

**b. Law Enforcement Reporting Task Force:** This group was formed by the USACE Provost Marshal in the first quarter, FY 95, to "conduct a review of current law enforcement reporting procedures and guidelines for adequacy, appropriateness, effectiveness and economy of resources and make recommendations as appropriate." The ultimate objective of the task force is to "provide a safe and secure environment for our team members and visitors to our project sites. In order to achieve this critical objective, we must report all criminal incidents involving COE assets, i.e., persons and property."

The group initially consisted of members of the Security and Law Enforcement Offices. The task force will be expanded to include representatives from the Natural Resources, Safety,

Information Management, and Logistics areas. The task force is currently on hold pending the recommendations of the Visitor/Ranger Safety Review Committee. An after-action report, dated 12/28/94, was forwarded to the USACE Provost Marshal with limited findings and recommendations.

**c. Safety Office:** The Review Committee requested input, concerning ranger and visitor safety, from the Corps' Safety community. From this request the Committee received comments from fifteen safety professionals. The very low response, about 12%, is probably due to a couple of factors. Many in Safety believe that this is an issue for the Security Office. Further, there are many in the Safety Office who are not familiar enough with the Ranger's duties to provide meaningful input. The theme from the majority was to require more formal training in risk/situation assessment, de-emphasize the appearance of law enforcement by removing the badge and changing the uniform, and by placing more emphases on contract law enforcement patrols. Another suggestion that was mentioned frequently was to ban alcohol in our parks. The suggestions from the safety community have been considered in the review process.

**d. WES/NRRP Research:** The NRRP was contacted to identify research related to visitor and ranger safety. They include:

- ▶ Reiling, S.D., McCarville, R.E. and White, C.M. (1994). "Demand and marketing study at Army Corps of Engineers day-use areas," Miscellaneous Paper R-94-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- ▶ Nickens, P.R. (1993). "Use of signs as a protective measure for cultural resource sites," Technical Report EL-93-6, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- ▶ Fletcher, James E. "Visitor Safety and Security Demonstration, Somerville, Texas" RECNOTES R-82-2, September 1982.
- ▶ Jackson, R.S. (1982). "Summary Report: Visitor safety and Security at Corps of Engineers Projects," Technical Report R-82-1, prepared by the U.S. Army Engineer Waterways Experiment Station, CE, Vicksburg, MS., and Gage-Babcock & Associates, Inc., Vienna, VA.

The last report was most relevant to the issues of visitor and ranger safety. The primary objective of the research effort was to develop alternative visitor safety and security techniques

which did not rely on traditional law enforcement and physical security methods. This study provided conclusions and recommendations in the areas of Crime Incident Reporting, Management, Design and Planning, Title 36, Visitor Perceptions, Contract law Enforcement, and Crime Prevention Techniques.

**e. Report of the Secretary of the Army to the Congress on Visitor Protection Services at Corps of Engineers Lakes, December 1974:** This study was authorized by Section 75 of the Water Resources Development Act of 1974 (P.L. 93-251) to study the need for and means of providing visitor protection services at Corps projects. This comprehensive study provided detailed analysis of crime statistics, standards for visitor protection, legal considerations, equipment and training needs, park operations and design, the court system and alternatives for level of enforcement. In review of the document, the committee found it to be generally well-researched and credible in its methodology.

**f. Report to the Congress by the Comptroller General of the United States, Crime in Federal Recreation Areas-a Serious Problem Needing Congressional and Agency Action, June 21, 1977:** This review was made pursuant to the Budget and Accounting Act, 1921 (13 U.S.C. 53) and the Accounting and Auditing Act of 1950 (31 U.S.C. 67) to analyze the visitor protection conditions at Federal recreation areas and to determine the adequacy of law enforcement and visitor protection operations. The report described the shortcomings in the Government's efforts to provide visitor protection services at Federal recreation areas. The report showed that limited statutory authority and lack of applicable Federal criminal statutes were hampering visitor protection services. Some of the issues addressed in this report are applicable to the current review of the Corps Visitor Assistance program. Some of the issues identified, such as Title 18 protection and implementation of law enforcement contracts have been resolved. The applicable recommendations made by the Government Accounting Office and the Department of Army's response to the recommendations are included in the discussions in Chapter III.

**g. National Crime Reports:** National crime statistics from two primary sources were used to analyze national crime trends. They include the Uniform Crime Reports, Crime in the United States, 1989 thru 1993, Federal Bureau of Investigation, U.S. Department of Justice; and the National Crime Victimization Survey, Bureau of Justice Statistics. These reports are

discussed in detail in Chapter III.

**h. Career Development Guide for Civil Works Natural Resources Management Team Members, EP690-2-2:**  
This guidance pamphlet was prepared by the NRM Career Development Committee and approved by HQUSACE. The guide includes training recommendations for various positions within the NRM field. Additionally, a training subcommittee is formulating a "Ranger Academy" concept. This Ranger Academy is envisioned to include all the multi-disciplines such as cultural resources, interpretation, contracting, budgeting, human resources, policy and visitor assistance. Further clarification and discussions on the Ranger Academy have been incorporated into the Training issue in Chapter III.

**i. National Operation and Maintenance Program Plan of Improvement:** This plan describes the strategic plan for shaping the Operation and Management organization to become more efficient and effective and outlines a process for setting performance measures at all levels of the organization. National Program Proponents set performance measures for Corps civil works missions which included "Recreation". The purpose statement is "To provide quality public outdoor recreation opportunities and experiences for present and future generations." Performance measures were developed for the product of Recreation Areas and Facilities for FY95 to include "customer satisfaction" and "cost per unit". The performance measure developed for FY96 is the value of the volunteers. The only performance measure related to ranger and visitor safety is the customer satisfaction survey previously discussed.

Michael O'Keefe, Rock Island District, drafted a Quality Management View of Visitor and Ranger Safety in March of 1995. A number of performance measures using existing data from the Natural Resource Management System is suggested. This methodology can be found in Appendix H.

**j. Peer Review:** The purpose of the PEER review program is to establish a systematic procedure for a broad-scope evaluation of the Corps of Engineers Operations, Construction, and Readiness programs by teams of peer professionals. As of the writing of this report, peer review of the Natural Resources and Recreation mission were conducted in Savannah and Kansas City Districts. Pittsburgh and Wilmington districts are also scheduled for Peer review in FY96. As a part of the projects self assessments, addressing visitor/ranger safety and security ranged from no discussions to a cursory review, with a more

detailed assessment at only a few projects. Observations related to visitor/ranger safety identified in Peer Review have been incorporated in Chapter III.

## CHAPTER III - PRIMARY ISSUES

The previous described sources of input have led to the development of primary issues and concerns that impact the safety of the ranger and visitor. The numerous issues have been merged and consolidated into general categories consisting of similar and related issues. This approach allowed the Review Committee to focus on issues that were more systemic than site specific. Many of the site specific issues identified by the field can be contributed to inconsistent implementation of the prescribed policies and guidance. Accountability and proper execution of the program is of paramount importance. Managers, district and division staff, and Chiefs of Operations must abide by the regulations established by HQUSACE. The Visitor Assistance program must have Command emphasis and Commanders must hold people responsible. Assurance can be achieved through existing means such as peer review, performance measurements, quality assurance and quality control and command inspections.

During the process of analyzing and discussing the tremendous amount of information that was collected for this report, it became very evident that defining the "role of the ranger" with a clearly defined vision of the Corps role as the second leading Federal provider of recreation is critical. The "role of the ranger" is a part of every issue analyzed under this review and as such, the question is asked, "Can the role of the ranger be defined without addressing the primary issues which affect visitor and ranger safety?" or "Can the issues be addressed without clearly defining the role of the ranger?" As the review process progressed, it became apparent that there was no clear-cut answer since the issues and the "role of the ranger" are so intertwined. Therefore, the "role of the ranger" issues evolved as other issues were dealt with and conversely, other issues were influenced as the role was developed and clarified. Since the "role of the ranger" is integral to all issues and is of paramount importance among the majority of rangers and managers, it is presented as the first issue.

The following sections of this report address the issues and alternative solutions which will help clarify the role of the ranger in the 21st Century. The analysis of the primary issues include: an issue statement, a discussion, potential solutions, and resource requirements in terms of funding and FTE.

## 1. Role of the Ranger

Issue Statement: The "role of the ranger" as currently defined by policy and regulation does not reflect the actual duties routinely performed.

Discussion: Rangers and managers at the Visitor/Ranger Safety Conference expressed their number one concern as the "role of the ranger". ER 1130-2-420 prescribes policy and procedures for the implementation of the Visitor Assistance program, and as such defines what the role of the Corps ranger should be. However, the concern expressed by field rangers is that the "role of the ranger" as defined by policy does not completely reflect the actual duties routinely performed by rangers. Regardless of whether or not ER 1130-2-420 clearly defines the role of the ranger, the perception in the field is that the role of the ranger is somewhat ambiguous and should be changed to reflect actual field conditions. Corps policy is clear on the rangers role in protecting the visitor from the resource and in protecting the resources from the visitor. The rangers role becomes ambiguous in protecting the visitors from the visitors. The Corps relies on local law enforcement agencies to protect visitors from visitors. Unfortunately, law enforcement officers are not always available or response time necessitates ranger involvement in visitor protection. In considering the various recommendations that have been offered, care has been taken to differentiate between relevant concerns and efforts by some to legitimize their failure to comply with regulation and policy in certain instances.

It appears that the role of the ranger is being influenced to a great extent by external forces and not necessarily by policy or regulations. The rangers' role is somewhat determined by the public and societal changes. The Corps mission is to provide a safe and healthful recreation opportunity and the visitor expects this. The visitor expects a park ranger to respond to their needs, which may include protecting the visitor from violent or criminal acts. Therefore, in addition to the traditional visitor assistance and resource protection duties, rangers are now facing increasing visitor protection responsibilities such as responding to fights, domestic disturbances and confrontations between visitors. This has led to confusion among Corps park rangers regarding their role in visitor assistance vs. park law enforcement duties. This confusion stems in part from current Corps management practices and the inconsistent application of policies. The problem is worsened by the mixed signals being sent as a result of conflicts between what the ranger is required to do and how the ranger is

expected to perform those duties. The ranger is required to patrol a park, wear a badge and enforce Title 36, but is told not to portray a "law" enforcement image.

Although visitor perceptions and expectations are not quantitatively defined by recent Corps research, field ranger and manager experiences with visitors leads to this assumption. For the Corps to be truly "Customer Focused", the Corps must determine the publics perceptions, needs and expectations and then define what is an adequate level of law enforcement services to provide a safe and healthful recreation opportunity.

Public safety is of paramount importance and is the basis for policies, rules and regulations relative to visitor behavior at Corps projects. The "reality in the field" is that Corps rangers are in a law enforcement role when they perform many of the traditional visitor assistance duties, such as responding to disturbances and enforcing Title 36.

Visitor assistance and park law enforcement is only one of the many duties performed by rangers. Rangers and managers are multi-disciplined professionals employed as natural resource, recreation, environmental and public relations specialists. In "re-defining" the role of the ranger, the Corps must be careful that park law enforcement duties do not adversely impact the other job responsibilities. At the Visitor and Ranger Safety Conference when asked to define the "Role of the ranger in the year 2000", rangers and managers stated the need for a multi-disciplined ranger, not a law enforcement specialist. Enforcement authority is simply another tool to use in accomplishing the mission of public safety, customer service and resource management. The duties of the ranger with respect to this mission involve more than just visitor assistance and encompasses at least two distinct functional responsibilities of equal importance. Therefore, the role of the Corps ranger in carrying out the mission of public safety and resource protection is to: 1) Provide visitor assistance involving interpretive and educational services and 2) Provide the level of enforcement necessary to insure public safety and the protection of resources.

Potential Solutions:

- ▶ Define the role of the ranger as prescribed above to reflect the actual duties that rangers are being asked to perform.
- ▶ Remove enforcement of Title 36 as a ranger duty.

- ▶ Maintain the current Visitor Assistance policy, ensure compliance and accountability at all levels.

Resources:

Costs: There would be administrative costs associated with policy revisions.

FTE: There would be no change in FTE requirements unless it was determined that there is not adequate staff to provide the level of enforcement necessary to insure public safety and the protection of resources.

## 2. Training

Respondents to the NRM Survey rated the quality of training courses that they have attended as very good, but they do not address some of the topics which are increasingly important as crime rates escalate. A wide range of content and quality exists between the various division or district Visitor Assistance training courses. In some regions of the country, the rangers who are performing the bulk of visitor assistance duties are the ones who have the least amount of experience and the least amount of training.

The NRM survey assessed respondents views on current ranger training. A total of 43% of the respondents rated the Visitor Assistance Basic PROSPECT course as "A or B" and 18% rated the Visitor Assistance Update PROSPECT course as "A or B". However, compiled analysis of student evaluations of the PROSPECT classes consistently rated the courses overall as excellent. Approximately 60% of the respondents to the NRM survey said there is a need for additional ranger training courses. The survey asked for ratings of supplemental Visitor Assistance courses sponsored by districts or divisions, if such courses were received. The high number of non-responses is indicative that Advanced Visitor Assistance (80%), Refresher Visitor Assistance (85%) and Personal Protection (80%) are not being offered locally.

Table 3-1 list the skills and knowledge that might assist park rangers and managers in performing their jobs and the percent of respondents in the NRM survey that ranked the skills as extremely or very important.

Table 3-1

| SKILLS                         | % OF RESPONDENTS |
|--------------------------------|------------------|
| Communication Skills           | 97%              |
| Public Relations               | 94%              |
| Conflict Management            | 93%              |
| Title 36 Rules & Regulations   | 90%              |
| Water Safety                   | 87%              |
| First Aid                      | 84%              |
| Personal Protection            | 84%              |
| Emergency Care/First Responder | 74%              |
| Defensive Driving              | 73%              |
| Incident Reporting             | 70%              |
| Crowd Control                  | 61%              |

Participants at the Visitor/Ranger Safety Conference rated training as the second most important issue concerning ranger and visitor safety today. They summarized that current training is inadequate, infrequent and inconsistent to provide adequate security and safety for visitors and rangers. Training subjects needing more emphasis include: Personal protection, cultural sensitivity, medical training, situational training and analysis, citation authority training for summer hires, water safety, tactical communication (verbal judo), drug awareness, liability, search and rescue, safe vehicle and crowd approach, defusing potentially hostile situations, gang awareness and domestic disturbances.

Some of this training is currently provided through the PROSPECT Visitor Assistance courses, offered at the division or district level or is contracted with private vendors. The primary concern is that these subjects are not adequately covered or are not offered with the frequency needed to maintain skills.

ER 1130-2-420 establishes training policies and procedures to ensure rangers are adequately trained. However, in many regions of the country, rangers do not always receive the training prescribed by the regulation. It often takes several years for rangers to attend the PROSPECT Basic Visitor Assistance course. Some temporary rangers perform Visitor Assistance work

with very little or no training.

Most division and district comments on the draft report were in support of improvements to the existing training program. There were many differing views as to the best methods to improve training.

HQUSACE, Commanders, division chiefs and managers need to place a higher priority on Visitor Assistance training with competing training requirements and commit the necessary travel and training funds. Rangers who are performing Visitor Assistance duties in the field, whether permanent, seasonal, or temporary must receive adequate training prior to performing visitor assistance duties.

#### **a. Training for Permanent Rangers**

Issue Statement: Training for permanent park rangers is sometimes inadequate to develop the skills necessary to safely provide visitor and resource protection.

Discussion: Inadequate and inconsistent Visitor Assistance training is a major concern by managers, rangers, and others working in Natural Resource Management. Participants at the Visitor/Ranger Safety Conference expressed interest in and support for a ranger academy, similar to that of other Federal agencies. The Career Development Committee proposed an academy which would include other courses needed for non-patrol duties such as O&M contracting, interpretation, ERGO, etc.

A centralized ranger training program offers national Visitor Assistance philosophies while minimizing the time and expense of providing local training. A centralized ranger training program would offer consistent instruction within the parameters established by HQUSACE. The present PROSPECT Visitor Assistance courses utilizing the talents of the current PROSPECT instructors would be incorporated into the centralized ranger training program.

The centralized training program could be accomplished utilizing existing training center(s), universities or regional hotels. Four primary courses are needed to develop the necessary knowledge and skills to safely provide visitor assistance: Program and Policy, Enforcement and Safety Skills, Visitor Assistance Overview and Management, Visitor Assistance Commanders Course.

Course I: Program and Policy. This course would serve as

the basic course for new employees, in essence, the basic PROSPECT Visitor Assistance course. Some of the enforcement skills discussed below and currently in the PROSPECT basic course may be omitted, provided Course II is taught prior to rangers performing Visitor Assistance duties. Course I should be taught in-house utilizing PROSPECT instructors.

Course II: Enforcement and Safety Skills. The second course would include the subject matter other than program and policy that is needed to safely and effectively perform visitor assistance duties. These topics would include personal protection, situational evaluation, and tactical communication. They would be more in-depth than that currently being taught in the basic Visitor Assistance PROSPECT class. Course II could be taught with contract vendors, freeing PROSPECT instructors to focus on program and policy training.

Inadequate and infrequent training in enforcement skills received numerous comments and concerns from the field. The following discussions may clarify the training needs in this area.

Personal protection and self defense tactics need to be taught frequently and more in-depth to adequately perfect skills. Competency in these skills can only be maintained with frequent refresher training and on-the-job practice time.

Situational training is similar to personal protection, above, but more related to avoidance issues, such as recognizing, avoiding, or extracting oneself from potentially dangerous situations. Rangers would benefit from skills which would enable them to read cues and danger signals which indicate situations in which they would be vulnerable.

Tactical Communications, more commonly referred to as "Verbal Judo" would enable rangers to gain compliance with regulations by using appropriate "presence and words" as force options. The Verbal Judo Institute, Inc. describes tactical communication as follows.

"Verbal Judo is the principle of Judo itself; using the energy of others to master situations. It contains a set of communication principles and tactics that enable the user to generate cooperation and gain voluntary compliance in others under stressful conditions, such as hostile suspects, upset or frightened victims, or any activities which places the officer and community at odds with each other. Verbal Judo teaches a philosophy of how

to look creatively at conflict, offering specific, powerful, and usable strategies to resolve tense situations."

Rangers in SAD and SWD who received training from vendors in verbal judo recommended this course.

Course III: Visitor Assistance Overview and Management. The target audience for this course is resource managers, operational project managers, NRM branch chiefs, Technical Support Services chiefs and Operations chiefs. It would also be applicable to rangers working longer than 4-5 years. It would provide an overview of the Visitor Assistance program to clarify program and policy guidance as well as changes in Title 36 or other program components. This course would involve more case studies and problem solving to better assist managers in improved decision making about the Visitor Assistance program. Mr. Troglin, lead PROSPECT instructor, has indicated that the current Advanced Visitor Assistance PROSPECT course is being revised, somewhat along these lines. Course III should be taught in-house with PROSPECT instructors.

Course IV: Commanders Course. The program and policy portions of Course III should also be incorporated into the Commanders course. Commanders need to be aware of the authorities and responsibilities of rangers performing visitor assistance.

Another approach to providing the needed training would be to supplement the existing PROSPECT courses with locally developed training. This approach would make the development of refresher training more important. Divisions and/or districts would be required to establish additional training courses for their ranger staffs. Each division could establish a group of Corps trainers and contractors to facilitate annual courses, similar to that already done in SAD and SWD. SAD has established a training list that each ranger must accomplish either on the job, or through local or national course work. SWD has developed an Advanced Ranger course. An advantage of this option is that costs for tuition and airfare are reduced. Disadvantages of this approach are inconsistent training and an increase in time and expense in course development at the local level.

Potential Solutions:

- ▶ Develop a centralized training program that includes program and policy, enforcement and safety skills, overview and management, and Commanders course.

- ▶ Provide three PROSPECT courses with the course focuses similar to that of the centralized training program: Basic, Advanced (Enforcement and Safety Skills) and Overview.
- ▶ Maintain the current Visitor Assistance Program PROSPECT courses without change and provide supplemental training at the division or district level.

Resources:

Costs: There would be additional costs for Course II - Enforcement and Safety Skills for those rangers who have not had this training. The costs would be approximately \$1000 per student for tuition, travel and per diem. If a PROSPECT class was developed for Course II, tuition costs could be higher. Costs associated with establishing division or district courses either in-house or with local vendors would be less than PROSPECT.

FTE: FTE will not increase, however, more time will be devoted to attendance at training or in-house course development and instruction.

**b. Refresher Training**

Issue Statement: Park Rangers receive Visitor Assistance and related training during their first few years of employment, but generally are not trained further, either for the purpose of developing new Visitor Assistance skills or refreshing existing ones.

Discussion: Permanent or seasonal rangers do not receive adequate refresher training. Once a permanent employee takes the basic Visitor Assistance course and the Advanced (Update) course, there are no more PROSPECT courses available for Visitor Assistance. In some cases it has been many years since permanent rangers have had refresher training in such needed skills as personal protection or situational analysis. Continuing education is needed to maintain skills or learn new techniques in such areas as personal protection, cultural sensitivity, medical training, situational training and analysis, water safety, tactical communication (verbal judo), drug awareness, liability, search and rescue, safe vehicle and crowd approach, defusing potentially hostile situations, handling gangs and domestic disturbances. ER 1130-2-420 requires local visitor assistance and Title 36 refresher training "as needed". Input from the field identified infrequent training as a primary concern. In response to this concern, the Review Committee discussed

refresher training at a minimum of 16-24 hours per year implemented at the division or district level, rather than training "as needed". The specific subject matter and method of instruction could vary annually. Attendance at a PROSPECT Visitor Assistance Course would suffice as adequate refresher training for participants for that year. Managers could be held accountable by district oversight or by revoking citation authority for those rangers who do not receive the specified refresher training and by including this standard in TAPES of rangers, managers, and appropriate district staff.

Potential Solutions:

- ▶ Mandate annual or periodic refresher training for rangers performing visitor assistance duties.
- ▶ Develop exportable refresher training by implementing a train-the-trainer program with consistent training materials.
- ▶ Provide refresher training at the project level with videos of pertinent PROSPECT subject matter.
- ▶ Contract with outside sources to teach non-Corps policy items such as self-defense tactics, crowd control, tactical communication, etc.

Resources:

Costs: Training costs will increase. Tuition, travel and per diem will be approximately \$200 - \$800 per ranger per year depending on the method of instruction selected for refresher training.

FTE: FTE requirements will not increase, however, more time will be devoted to attendance at training or in-house instruction.

**c. Training for Temporary Employees**

Issue Statement: The training received by temporary employees is not always adequate for the level and type of visitor assistance duties they perform.

Discussion: Temporary summer rangers are an important and integral part of the ranger patrol staffs. At many projects, they perform a large percentage of the visitor assistance duties. As budgets become tighter, training ceilings are constrained. As

a result, at many locations training for temporary employees who perform Visitor Assistance duties may not receive a high priority. Some temporary rangers are working in the field, entering into potentially dangerous situations with little or no training. On-the-job training of varying scope and content is often received in lieu of formalized training.

The effectiveness of the Visitor Assistance Program would be enhanced if temporary employees were adequately trained and received citation authority. Some districts do not grant citation authority to temporary employees simply because of their temporary status and not based on the "aptitude, temperament, personality, experience and ability to exercise citation authority properly" pursuant to citation authority designation stated on Engineering Form 4710.

ER 1130-2-420 clearly states in section 13.b that no temporary employee shall receive citation authority in their first summer of employment. Further, warning citations may be issued only by individuals who have the authority to issue citations. Accordingly, if temporary rangers do not attend citation authority training courses, they receive no training at all, except for limited on-the-job training with more experienced rangers. However, these first year temporary rangers are asked to patrol in the same manner as citation authority rangers. Consequently, they are less effective than other rangers who have received training and are authorized to issue warnings and citations. With proper training, new temporary rangers will have the skills necessary to recognize violations, explain why the park rules exist, and take appropriate action when necessary.

Temporary employees are often college students working three to four summers. The regulation currently limits citation authority for two years once training at an approved district or division course is received. Managers are reluctant to send temporary rangers to the PROSPECT course for the additional one or two years of anticipated returning employment. Consequently, citation authority is extended inconsistent with prescribed policy.

Returning temporary employees, such as school teachers, may work for the Corps for ten seasons or more. These employees often serve as shift leaders, work night duty and train new temporary rangers. In many cases, they received the district or division citation training during their first or second year of employment and have not received additional training. In some areas, they repeatedly attend the local Visitor Assistance training instead of attending the PROSPECT course.

Inadequate, infrequent and inconsistent training is especially applicable to temporary rangers. To ensure adequate and consistent training, an exportable course could be developed and taught at the project level. Course materials such as facilitator and student guides, overheads, slides and videos developed through Huntsville by a team of PROSPECT instructors with input from the Review Committee would ensure consistent course content. Permanent rangers could be trained as facilitators through a "train-the-trainer" program. This would eliminate the time for development of local course materials.

Potential Solutions:

- ▶ Change the policy concerning granting citation authority to first season temporary employees.
- ▶ Restrict duties for temporary employees to interpretation, visitation data collection, contract inspection or other non-enforcement duties if training is not received.
- ▶ Ease travel restrictions that are placed on temporary rangers.
- ▶ Make the PROSPECT basic Visitor Assistance course available in June for returning temporary employees. Ensure that temporary employees receive the PROSPECT course versus repetitive attendance at a local district course.
- ▶ Change the regulation to allow for citation authority for a maximum of 3 years for returning temporary employees with attendance at an approved district level course.
- ▶ Establish a "mentor" program for temporary rangers to gain on-the-job experience with permanent rangers.

Resources:

Costs: Training and possibly travel costs will increase.

FTE: FTE requirements will not increase, however, more time will be devoted to attendance at training for temporary employees. Permanent employees will spend more time providing training.

**d. Other Local Training**

Issue Statement: Current training courses such as cultural sensitivity and emergency medical response as recommended in ER 1130-2-420 are not always made available locally to rangers and

are not offered in current PROSPECT courses.

Discussion: As our culture evolves, some regions of the country with predominant ethnic groups may cause specific management concerns. As youth/urban gangs, ethnic populations, and other segments of our society increase their use of Corps projects, rangers and visitors face problems not previously encountered. Youth gangs have begun to use select projects. Large ethnic populations with limited English language skills have become established in various locations and recreate at nearby Corps projects. Cultural sensitivity training and even secondary languages would better equip rangers with the knowledge necessary to address management problems involving cultural differences. Divisions and districts could incorporate sessions addressing cultural sensitivity in their local training courses. Local governmental agencies, universities, law enforcement agencies, and district special emphasis program committees are sources for course instructors.

WES has initiated a work unit titled, "Ethnic Cultural and Corps Recreation Participation," with the objective of providing information on ethnic and cultural outdoor recreation needs and preferences. This information will be useful in improving outdoor recreation opportunities at existing recreation areas or incorporating ethnic and cultural needs during rehabilitation of facilities.

Emergency medical training or rescue techniques are not always provided as prescribed in the regulation. Permanent rangers usually receive first-aid, CPR and blood borne pathogen training, but not always. In many regions of the country, temporary rangers do not consistently receive this training. OSHA regulation 29 CFR 1910.1030 requires awareness training for employees who are at risk of contact with blood borne pathogens. The medical aspects of today's world are becoming increasingly more complex. Rangers and visitors are exposed to many safety and health risks. Rangers currently become involved in medical emergencies, at least on a first responder basis, pending the arrival of trained medical personnel. Given the large visitation that Corps facilities receive, it is inevitable that first responder situations will continue. Sufficient time does not exist in the existing PROSPECT courses to adequately address medical concerns. Local vendors are readily available and it is more cost effective to provide this training on a project or district level.

Potential Solutions:

- ▶ Encourage divisions and districts to incorporate cultural diversity in their local training program where needed.
- ▶ Provide government funded language courses for employees in regions where needed.
- ▶ Hold managers and division chiefs accountable for ensuring appropriate medical training of all employees with Visitor Assistance duties.

Resources:

Costs: Increased costs would be associated with providing recommended training in those regions of the country where such training is currently not available. First aid and CPR training is approximately \$30 per student. Cultural sensitivity and language classes range from \$30 to \$300 depending on the scope.

FTE: FTE will not increase, however, more time will be devoted to attendance at training.

### **3. Equipment**

Adequate and reliable personal safety equipment, communication equipment and vehicles are essential tools for rangers in performance of Visitor Assistance duties. Concerns of proper equipment was prioritized as the fourth leading issue at the Visitor/Ranger Safety Conference.

#### **a. Personal Safety Equipment**

Issue Statement: Agency provided personal safety equipment is perceived as inadequate by some rangers, thereby creating an unsafe situation for both the ranger and the visiting public.

Discussion: Field rangers are concerned about their individual safety while on the job and the safety of visitors they feel a duty to protect. This concern is precipitated by the lack of safety equipment currently being provided to the ranger. The NRM Survey concludes, "The overall responses indicated that personal equipment is not sufficient for them to perform their duties safely".

The current Visitor Assistance regulation prohibits the use of personal defensive equipment. Equipment that is not specifically authorized and considered optional is often not provided consistently throughout the Corps. In addition,

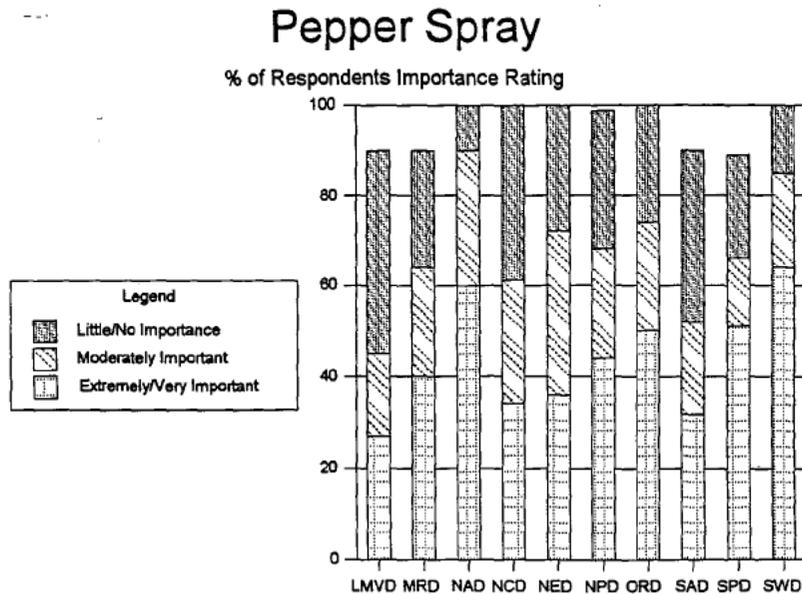
authorized equipment is sometimes outdated, of poor quality, or simply not supplied.

The Review Committee felt that the issue of defensive personal safety equipment should be analyzed. Table 3-2 lists personal equipment and the percent of respondents in the NRM survey that rated them as extremely or very important, moderately important and only a little or not important. Percents do not total 100% due to those respondents that did not answer the question.

Table 3-2

| EQUIPMENT            | EXTREMELY<br>OR VERY<br>IMPORTANT | MODERATELY<br>IMPORTANT | LITTLE<br>OR NOT<br>IMPORTANT |
|----------------------|-----------------------------------|-------------------------|-------------------------------|
| Alarm/Strobe         | 39%                               | 26%                     | 32%                           |
| Night Goggles        | 17%                               | 26%                     | 54%                           |
| Polaroid Camera      | 78%                               | 17%                     | 4%                            |
| 35mm Camera          | 70%                               | 24%                     | 5%                            |
| Video Camera         | 46%                               | 35%                     | 28%                           |
| Vehicle Light Bars   | 37%                               | 21%                     | 37%                           |
| Blood Borne Pathogen | 85%                               | 9%                      | 4%                            |
| Mace/Pepper Spray    | 50%                               | 20%                     | 37%                           |
| Stungun              | 21%                               | 19%                     | 57%                           |
| Nightstick           | 27%                               | 18%                     | 51%                           |
| Bullet Proof Vest    | 46%                               | 20%                     | 41%                           |

Throughout this review, authorizing the use of pepper spray by rangers has generated considerable comment. Fifty seven percent (57%) of the rangers in the NRM Survey thought pepper spray was either extremely or very important, while thirty-six (36%) of the mangers thought it was extremely or very important. Only two divisions commented negatively on authorizing pepper spray during review of the draft document. However, as Figure 3-1 shows, in the NRM Survey response to pepper spray by division was dispersed across all categories ranging from extremely important to not important.

Figure  
3-1

Pepper spray is readily available in drug stores, convenience stores and department stores. Federal Women Program committees throughout the Corps sponsor training and promote the use of pepper spray for district and division employees personal safety. It is no longer considered a tool exclusively for use by police officers. Pepper spray is also effective against animals. One comment within the survey states, "Animal bites are possibilities for shoreline management and campground patrol...I was cornered by a pit bull, and it scared me." There are numerous accounts by park rangers concerning attacks on them by animals.

The use of pepper spray raises numerous liability issues for the ranger and the agency. Recent reports of deaths due to allergic reactions to pepper spray especially among asthmatics is a factor for consideration. Issues regarding decontamination procedures, lack of authority to hand-cuff or detain the individual once sprayed and the ineffectiveness of the spray on some individuals need to be analyzed. Clear policy guidance, standard operating procedures and training on use of pepper spray would have to be developed if authorized for use. Office of Counsel would need to address the liability and other issues associated with authorizing pepper spray.

During the field review of the draft document, the continuum of force, as shown in figure 3-2, raises the concern that use of pepper spray is just one step below the use of deadly force. Some research indicates that approximately 90% of confrontations in police departments are resolved by mere presence of verbal tactics. Thus training, as previously describes is critical in areas such as "verbal judo" and situational analysis.

Figure 3-2  
Continuum of Force

|          |        |          |                                 |                 |
|----------|--------|----------|---------------------------------|-----------------|
| PRESENCE | VERBAL | PHYSICAL | CHEMICAL<br>OR IMPACT<br>WEAPON | DEADLY<br>FORCE |
|----------|--------|----------|---------------------------------|-----------------|

Night sticks, along with other high profile tools such as hand cuffs, are often considered tools directly related to making arrests. The issue of guns and "arming rangers" generated strong emotional responses from the field. Armed federal officers has also been the subject of recent controversy in Congress. Some view guns as simply "a tool" and with proper training, an essential piece of safety equipment for many of the dangerous situations that rangers encounter. Others view that guns are not needed and may put the ranger at greater risk. Seventy-one percent (71%) of the managers in the NRM Survey thought guns was either of little or of no importance, while forty-eight percent (48%) of the rangers thought it was little or of no importance. The Review Committee feels that night sticks, hand cuffs and guns should not be authorized unless the Corps seeks authority for arrest and commissioned to enforce either state or federal laws.

The use of personal body armor or protective vests is another issue raised by the field. Forty-four percent (44%) of the rangers in the NRM Survey thought bullet proof vests was either extremely or very important, while twenty-three percent (23%) of the managers thought they were extremely or very important. Only two divisions commented negatively on authorizing body armor during review of the draft document. Five divisions commented with divergent views on optional vs. mandatory use and whether the government should provide protective vests.

Bullet proof vests are certainly advantageous in stopping most types of bullets, however, they do not prevent knives from penetrating or may not be effective in absorbing blunt weapons. The major disadvantages of protective vests are identified as

being uncomfortable to wear, may be extremely hot and are expensive. Although not specifically prohibited by policy, vests are usually not procured by the government. Liability may be a concern if the government were to procure vests, thereby admitting that rangers are exposed to dangerous situations, and not requiring the employee to wear them while performing patrol duties. Office of Counsel should investigate this further.

A rather important equipment related topic was that of supplying blood borne pathogen kits and related equipment to rangers. Some rangers indicated that this type of equipment is not currently being supplied. OSHA regulation 29 CFR 1910.1030 requires that all employees who are at risk of coming in contact with blood borne pathogens should be provided the necessary equipment to protect themselves. The Review Committee feels that rangers (permanent and temporary) are routinely at risk and must be provided this equipment and training on how to utilize this equipment.

#### Potential Solutions:

- ▶ Provide government furnished personal safety equipment to be used for defensive purposes. Train employees in the use of equipment provided.
- ▶ Update ER 1130-2-420 to permit the use of personal protective equipment with clear guidance and procedures on the appropriate use of such equipment.
- ▶ Allow employees to procure and use personal safety equipment for defensive purposes at their option.
- ▶ Mandate the use of specific personal protective equipment if the government purchases such items.

#### Resources:

Costs: Pepper spray costs approximately \$25 per canister. Training in the use of pepper spray could be procured locally at minimal costs. Protective vests range from \$300 to \$800 per vest and are considered "personal" items, sized to fit an individual employee. Protective masks, gloves and related blood borne pathogen equipment range from \$2-\$25 per kit.

FTE: No change

#### **b. Communication Equipment**

Issue Statement: Communication equipment provided to rangers for use in patrol-duties is not always reliable.

Discussion: Communication equipment is sometimes outdated, lacks the range to maintain contact or simply is not available. Many radios do not carry law enforcement frequencies, have weather channels or cannot be used outside of the vehicle. Reliable radios are an important piece of safety equipment and when combined with other devices such as cellular phones can provide a system of reliable communication equipment.

The South Atlantic Division's Survey on Communication Equipment conducted in May 1995 indicated that forty-five percent (45%) of SAD's projects had experienced some form of communication equipment procurement or funding problems. The Audit report noted that the purchase of specialized communications equipment, such as cellular telephones is authorized, when necessary, to facilitate visitor assistance.

Rangers indicated that many projects are experiencing a lack of district element support for the purchase of cellular phones. The benefits of cellular phones were summarized in the SAD survey, "During times when there is no one in the office (nights, weekends), cellular phones provide rangers with direct communication to the sheriff's office. This provides additional safety for rangers and insures quick and efficient communications for emergency situations. Cellular phones are also useful in sensitive situations where radio traffic needs to be restricted." Cellular phones offer a direct communication link to sheriff department dispatchers, wildlife enforcement officers, state police, rescue squads, fire departments, etc. Gate attendants often have phones and can easily call a ranger for assistance. As a matter of public and ranger safety this tool used in combination with a programmable radio is essential.

A high percentage of respondents in the NRM Survey rated the importance of radio equipment as either extremely or very important: Law enforcement link (93%), vehicle mounted radio (95%), and portable/hand held radio (91%). Often radios lack programmable scanning features or have no law enforcement link. Some projects have multiple law enforcement agreements requiring links with four or five sheriff departments. In some areas, the radios have the capability for multiple links, but local policy dictates that radios can not have a greater number of other agency frequencies than the number of Corps frequencies. In some areas, hand held radios with Corps frequencies are given to the local deputy under the law enforcement agreement. This ensures radio contact with the contract deputy and lets rangers

know where and when the deputy is on duty.

In many areas, hand held radios are not supplied. This puts the ranger with no means of communication when outside of the vehicle. Visitor contacts outside and away from the vehicle are routine. Hand held radios are essential for ranger safety and visitor safety when immediate call for assistance is needed. Hand held radios are readily available that also function as a vehicle mounted radio, thus eliminating the need for two separate radios.

Projects in close proximity have frequencies whose broadcast range overlap, especially with repeater stations. Radio traffic from one project may "step-on" broadcast signals from another project. This interference sometimes causes problems when urgent radio contact is needed.

Reliable communication needs must be analyzed at the project level. Procurement barriers or restrictions should be eliminated.

Potential Solutions:

- ▶ Specify by policy the type of communication equipment to be used.
- ▶ Develop general guidelines to ensure that some type of reliable communication equipment is available, but leave the specific type to the discretion of the manager.

Resources:

Costs: There would be an increase in costs to upgrade radio equipment and/or purchase cellular phones. Cellular phones range from \$100 to \$300 per phone and have monthly service charges depending on usage.

FTE: There may be a reduction in FTE needed to maintain project radios if cellular phones were used exclusively. Most cellular phones would be maintained with local service agreements.

**c. Vehicles**

Issue Statement: Ranger vehicles are not consistent in color and markings and as such are not easily identifiable to park visitors needing assistance from a ranger.

Discussion: Vehicle problems were a major concern expressed by

the field. Many projects were experiencing problems getting the types of vehicles requested and the green color required in the Visitor Assistance regulation. Many projects have switched from project owned to GSA fleet vehicles. This compounds the problem in that GSA often delivers whatever is available instead of what was ordered. The problem in some areas is caused by procurement policies that do not allow for a specific color unless multiples of five or more vehicles are ordered. Ranger vehicles are white, tan, brown, blue, maroon and green. A standard color, such as white, that is easily procured would provide consistency throughout the Corps. Changing the standard to white, still would not guarantee that GSA will deliver white vehicles, but white is commonly available. During the field review of the draft report, one division expressed opposition to a standard white color of vehicle, desiring to keep the currently prescribed green.

Regardless of the color of vehicle, it is imperative that vehicles be marked clearly so that visitors can readily identify them as ranger vehicles. It was apparent from ranger comments that vehicles are not being adequately marked or lack any markings at all. Further, GSA sometimes places additional restrictions on marking vehicles. One comment from the NRM Survey sums up the frustrations in the field by rangers, "Why do Corps vehicles not have anything identifying us as Park Rangers? Why haven't all Districts implemented some kind of policy officially allowing us to place the words "Park Ranger" on vehicle quarter panels and on the rear of the vehicle? Visitors do not know who we are. This is a very important issue that has been ignored by my District, and I wish we would get some guidance from someone soon... Our branch chief feels that we would be too aggressive if we marked them. For goodness sakes we just want the public to know who we are when we drive by their campsite or picnic table".

The Review Committee researched other federal agency and Corps markings as well as markings currently in use at some Corps projects. Standards from the other agencies may be beneficial in developing a Corps standard if approved and mandated by HQUSACE. Markings could be magnetic or adhesive. Vehicle utilization requirements for mileage sometimes requires the use of manager or maintenance vehicles for patrol duties, thus making magnetic markings more desirable. The overall goal of a marking standard is to maximize the visibility of the ranger vehicle to the public.

Respondents in the NRM survey had a mixed reaction to fixed light bars. The percent of respondents ranked the importance of

light bars as follows: 37% extremely or very important, 21% moderately important, and 37% only a little or not important. Four divisions voiced opposition to fixed light bars during the comment period of the draft report and several divisions requested optional use of light bars. The current policy prohibits the use of permanently fixed light bars primarily to portray more of a low profile law enforcement image. Fixed light bars are also a tool for stopping vehicles. Vehicle stops are considered one of the most dangerous situations that officers encounter.

There are positive safety aspects of fixed light bars. Rangers are often placed in situations where they must direct traffic and assist in emergency situations. In order to safely handle these situations, the public must see clearly the ranger and their vehicle. The presence of a light bar helps the visitor visually locate and identify vehicles that could offer assistance. In some instances, rangers must stop vehicles operating in an unsafe manner which may be endangering other visitors or property. Each State has designated a particular color light as one that is recognized for emergency vehicles and requires a driver to pull over and stop.

Grill mounted lights are effective in stopping vehicles, providing warning lights in emergency medical situations, and maintain the low profile law enforcement image. Bubble lights on the dash are not as visible for use as warning lights in emergency situations.

A fixed spot light or "alley light" mounted either on a light bar or on the drivers door would greatly contribute to ranger safety by illuminating dark areas that the ranger routinely patrols or inspects. Spot lights assist in closing day use areas at night, illuminating vehicles prior to the ranger contacting the visitor asking them to leave the area. Spot lights offer an excellent source of light when first aid or emergency rescue operations occur at night. Permanently mounted spotlights may present a higher law enforcement profile. Hand held spot lights are used in some areas. The disadvantage of this type is that one hand must be used to hold the light making it difficult to drive, talk on the radio and illuminate the area at the same time. They are also less effective in illuminating areas in emergency medical operations. One division expressed opposition to fixed spot lights during the field review of the draft report.

Public address systems are also an essential tool for warning of tornado and severe weather threats and safely clearing

day use areas for gate closings. Public address systems can be mounted in fixed light bars.

Potential Solutions:

- ▶ Change policy to require the standard color of vehicles to be white.
- ▶ Develop standards for ranger vehicle markings.
- ▶ Provide emergency lighting systems of a style and color recognized by states as emergency/law enforcement vehicles.

Resources:

Costs: An increase in costs would result in procurement of emergency light systems. The approximate costs are as follows: Fixed light bars (\$700-\$2500), grill mounted and rear deck lights (\$250), bubble lights (\$50-\$115), fixed spot lights (\$100), hand held spot lights (\$20-\$50).

FTE: No change.

**4. Personnel Issues:** There were a number of concerns raised during the Visitor/Ranger Safety Conference, Audit and NRM Survey that fall under the broad umbrella of personnel issues. Hazardous duty pay for ranger duties was discussed by the committee and determined to be a non-issue as very few ranger activities qualify the ranger for hazardous duty pay. The only specific ranger duty that may qualify is fire fighting pay.

Physical fitness standards were discussed and the Review Committee agreed that while physical fitness is recommended, within the current Visitor Assistance Program no standards are required. If however, the Corps should endorse fully commissioned law enforcement officers, commissioned officers would be required to meet physical fitness standards.

The following personnel issues warrant further discussion because of the concerns raised by the field and the potential impact on visitor and ranger safety.

**a. Skills of the Ranger**

Issue Statement: Ranger and visitor safety may suffer because of a lack of certain skills by some rangers performing visitor assistance duties.

Discussion: Park rangers have varied education backgrounds and experience. Because of this difference, individual interests and inconsistent training, ranger skills have developed at widely variable rates across the nation. Currently there are few requirements covering the skills necessary for visitor assistance duties. This applies to new hires as well as seasoned veterans. Mandatory refresher training as prescribed above in areas such as self defense skills, tactical communication, CPR, first aid, and use of personal protection equipment would be the basics in the development of minimum skill standards.

Potential Solutions:

- ▶ Require newly hired rangers to meet certain standards, skills or an aptitude test.
- ▶ Require permanent rangers to periodically meet certain standards, skills or an aptitude test.

Resources:

Costs: An increase in funds would be required to administer and evaluate tests.

FTE: No change

**b. Professional Series**

Issue Statement: Because the GS-0025 park ranger series is not a professional series, individuals from varied backgrounds qualify as park rangers.

Discussion: Employees without recreation and resource backgrounds may require more intensive training to enable them to perform visitor assistance duties. During this period of intensive training, both the ranger and the visiting public are put in additional risk. The "breaking in" period for new park rangers would be reduced because of the curriculum requirements imposed as well as pre-hire conditions of certain skills.

A professional series may enable the Corps to recruit and hire individuals more highly qualified to be park rangers. The risk to the ranger would decrease by ensuring a more qualified ranger staff needed for "back-up", emergency situations and quality customer service. A professional series would allow the Corps to work with many universities to establish specific curriculum to help meet our visitor assistance needs.

HQUSACE has been pursuing various avenues for the establishment of a professional series. Recently, the Office of Personnel Management proposed the General Schedule (GS) series consolidation, reducing the number of job series from 442 to 74. With the proposed GS series consolidation, a "new" professional series for park rangers is unlikely. This consolidation proposes grouping the GS-0025 park ranger series as a subset of the GS-1800 Protective Series. This series is a non-professional series and includes those jobs primarily associated with security protection and enforcement. The GS-1800 protective services series are generally lower graded than the current journeyman GS-9, park ranger. As previously discussed in defining the role of the ranger, park rangers are multi-disciplined and visitor assistance is only one aspect of the job. If a separate law enforcement division is pursued for the Corps, then the GS-1800 series is the appropriate series.

The proposed GS series consolidation includes the GS-400 Biological Sciences. Current qualifications for the GS-401, a subset of the GS-400 grouping, include 24 semester hours of biological science course work from an accredited college or university. A Corps wide survey of NRM employees conducted in 1993 revealed that the majority of the Corp GS-0025 employees had taken the required college course work to qualify for the GS-401. Although park management and recreation are important aspects of Corps NRM jobs, more than 50 percent of the duties of some park rangers are related to the professional practices and methods described in the GS-400 series.

Another option is to pursue including the GS-0025 series as a subset of the GS-400 grouping. Obtaining approval from OPM to establish a GS-0025 non-professional subset within the GS-400 professional series may be difficult without similar support from other federal agencies.

Potential Solution:

- ▶ Professionalize the GS-0025 series
- ▶ Convert ranger positions to an existing professional series.

Resources:

Costs: No change

FTE: There would be no change in FTE requirement, however FTE would be devoted for personnel actions needed to process the change to a professional series.

### c. Background Checks

Issue Statement: Background checks are not performed on new employees which may result in personnel ill-suited for ranger or gate attendant duties. Occasionally felons are performing visitor assistance or gate attendant duties.

Discussion: Background checks for prospective employees, both temporary and permanent and service contractors to help determine if these persons had anything in their past that would impact job performance. In the past, the Corps has hired individuals as temporary park rangers, park aides and contract gate attendants about whom it was discovered that they either had outstanding warrants, were convicted of crimes, were on probation or out of prison on bail, that could prevent satisfactory job performance.

Background checks could be performed by the Corps or be a requirement of the contract submittal. Background checks could be a condition of employment. Human resources would have to be consulted regarding the most effective means to accomplish this, specific criteria to investigate and any personnel restrictions.

#### Potential Solution:

- ▶ Perform background checks on permanent and temporary employees hired for Visitor Assistance duties and service contractors where interaction with park visitors is a job requirement.

#### Resources:

Costs: There would be an increase in the costs associated with background checks. Contract costs could increase for the background check requirement.

FTE: No change.

### d. Staffing Levels

Issue Statement: Current staffing levels are not always adequate to provide safety and security to the visitor.

Discussion: Visitor and ranger safety is very important and additional staff and funding may be required to successfully carry out this program. The Corp should operationally define the staffing requirements of providing a safe and healthful environment. The National Park Service has developed activity

standards to govern the conduct and operations of its enforcement personnel in recreation and park areas. Such an effort is beyond the scope of this review, but is needed to quantitatively determine if public safety is being jeopardized by inadequate staffing.

The Manpower Staffing Model uses various parameters to determine the total number of FTE needed at projects. Numerous glitches were found in the model especially in determining the appropriate parameters to use. Although visitation is one parameter in the model, it does not address the staffing requirements for providing a safe and healthful environment for the public.

The 1974 report discussed standards for visitor protection and recommended improvements in manpower staffing including a greater use of permanent personnel during evening hours to oversee patrol activities of temporary rangers. The study found that over 70 percent of the permanent ranger force worked the day shift, while 50 percent of the seasonal employees worked the evening and midnight shift with minimal assistance and supervision. The 1974 report recommended a ratio of approximately 100,000 - 150,000 visitor days per ranger or seasonal equivalent during the summer season. The 1994 NRMS shows current ranger staffing levels of 942 permanent, 133 permanent part-time, 647 temporary, and 388 non-FTE for a total of 2,110 rangers. Nationwide, the number of visits during June, July and August was 107,250,000 for a ratio of 51,000 rangers per visit. Visits were used instead of visitor days, and it must be recognized that they are not synonymous. Although this ratio is well under that recommended in the report, the calculations assume that all 2,110 rangers are performing visitor assistance duties 100% of the time during the summer. Obviously this is not the case. More in-depth analysis per project on the ratio of "patrolling" ranger/visitor may be warranted. The report recommended a ranger force of 642 permanent rangers and 1259 seasonal rangers for a total of 1901 rangers performing visitor assistance duties. The 2,110 rangers exceed the recommended amount, but they perform a multitude of duties in addition to visitor assistance such as interpretation, contract inspection, visitor center, fee collection, etc. Actual patrol hours should be estimated and compared with that recommended in the 1974 report.

The 1974 report also recommended minimal hours for commissioned officers (regardless of who provides the service) to be 418,344 hours annually. The NRMS shows the average number of contract hours under law enforcement agreements over the past ten

years averages 290,872 hours per year.

The 1977 GAO report recommended to the heads of federal land management agencies to delineate acceptable levels of law enforcement service to be made available to visitors.

Since these previous reports were written, a greater percentage of ranger time is devoted to non-visitor assistance duties. These additional duties required during the peak recreation season include day use fee collection, service contract administration, ERGO, marina compliance inspections, threatened and endangered species studies. The increased ranger workload for non-visitor assistance reduces the number of patrol hours and increases the dependence on temporary rangers for patrol coverage. The ability to rehire, qualified and well trained summer rangers is critical. FTE ceilings continue to plague this pool of personnel that is critical to providing safe and healthful recreation opportunities.

Responses from the NRM Survey indicated that concern for staffing was moderate with a majority of the responses falling into adequate and somewhat adequate. Only 25% of the respondents indicated that staffing was inadequate. However, 100% of those at the Visitor/Ranger Safety Conference indicated that staffing levels were inadequate. The primary reason given for rangers not riding in pairs at night is inadequate staffing.

#### Potential Solution:

- ▶ Develop standards for visitor protection.
- ▶ Assess staffing needs of Corps and contract law enforcement personnel for adequate security and safety of project visitors.
- ▶ Seek an increase in FTE ceiling to meet this need.
- ▶ Ensure adequate FTE are available for rehire of experienced summer rangers.

#### Resources:

Cost: An increase in staffing requirements would require more funds for salaries. An increase in law enforcement services would also increase funding needs. Providing law enforcement services to the level recommended in the 1974 report (a 44% increase) would require an increase of approximately \$2.7 million

annually.

FTE: The number of FTE needed to ensure public safety requires further study and more in-depth analysis based on standards for visitor protection.

## 5. Court System:

Issue Statement: Corps rangers efforts to enforce Title 36 are sometimes hindered by the U.S. magistrate system.

Discussion: The magistrate court system and policy constraints prescribed by the current visitor assistance regulation combine together to create a host of unique problems. Some of the problems identified by rangers and managers include: Inadequacy of the court system to deal with juvenile violators; Low forfeiture collateral and sentencing; Failure to adequately deal with violators who fail to appear in court; Lack of support from U.S. Magistrates, U.S. Attorneys' Office, and U.S. Marshals Service; Lack of investigative powers by Corps citation officers; Lack of ability of Corps citation officers to provide evidence for cases.

Dealing with juvenile violators on project lands presents a special challenge for the Corps ranger. Violations involving acts of vandalism, public disturbances, and alcohol restrictions are increasingly attributed to juveniles. Currently, rangers coordinate with the local U.S. Attorney's Office for prosecution of juveniles. The process varies depending on the U.S. Court District. Some rangers are instructed to cite juveniles like any other offender while others are told to use a hands-off approach. In many instances, juveniles who are cited and do not pay the forfeiture collateral simply have their cases dismissed. Frequently, the procedure for prosecuting juveniles is too burdensome and costly when only minor offenses are involved. Rangers dealing with juvenile violators often rely on contacting parents or turning the juveniles over to local authorities. Juveniles are sometimes offered opportunities of picking up litter, painting over graffiti, or other similar work in lieu of paying the fine.

One major problem in the system involves the failure to follow through with serving bench warrants when violators do not pay the forfeiture collateral and fail to appear in court. The U.S. Marshal is simply too busy to pursue individuals who do not appear because of higher priorities established by the court. Low fines and sentences after a conviction add additional problems. For example, some violators are willing to pay a \$25.00 fine to

illegally reserve a prime campsite or \$50.00 to cut trees for a better view of the lake. The following are comments submitted from the field in the NRM Survey which express dissatisfaction with the current system:

"... We present the image of law enforcement without any tools. The public already realizes that they don't have to pay our citations and nothing will happen."

"Many of the visitors I have had dealings with know that the best way to beat a federal citation issued by a Corps ranger is to do nothing. People know that Federal Marshals are not going to hunt them down for a \$15 to \$50 citation. I suggest, at the very least, increasing the collateral forfeiture to be a more significant penalty for a violation. Currently, the fine for any given violation does not even come close to paying the administrative cost associated with the issuance of a citation... I think the public views our fines as a joke."

The Kansas City District pursued the possibility of having local law enforcement agencies serve bench warrants. They found that Rule 4 of the Federal Rules of Civil/Criminal Procedures gave states and local law enforcement agencies authority to serve Federal warrants. In 1994, thirty-three local law enforcement agencies indicated a willingness to serve warrants in the Kansas City District.

Another alternative for consistent serving of bench warrants is to include warrant serving in the list of duties found in Law Enforcement Cooperative Agreements (LECA). One issue that would need to be resolved is the procedure for the transportation of the arrested party and local appearances before local magistrates. In some areas, there are not enough U.S. magistrates to hear all the cases. Coordinating with the Department of Justice to appoint additional part time magistrates may be of benefit.

Potential Solutions:

- ▶ Coordinate with local law enforcement agencies to serve bench warrants.
- ▶ Contract with local law enforcement agencies to include serving warrants.
- ▶ Develop a Memorandum of Understanding with the U.S. Federal Marshals to serve bench warrants.

- ▶ Develop an agreement with the local magistrate for court ordered restitution with juvenile violators in circumstances where there is reluctance to prosecute juveniles.

Resources:

Costs: There would be an increase in funding requirements for contracting for bench warrants. Average cost per hour for LECA is \$21.50. Time for serving bench warrants would range from 1-2 hours.

FTE: No Change.

**6. Title 36:**

Issue Statement: Title 36 needs to be updated to adequately provide for the protection of visitors, rangers and resources.

Discussion: In recent years, there has been interest among Corps field rangers for a revision of Title 36. The last revision of Title 36 was May 1986. Revision goals should include:

- ▶ Increase protection and safety for visitors to water resource projects.
- ▶ Increase protection of private property incidental to recreational visits.
- ▶ Improve ranger safety and provide sufficient authority to execute the Corps enforcement mission.
- ▶ Ensure resource protection.
- ▶ Update sections of the regulation for consistency with state law.

Approximately 75 percent of the participants at the Visitor/Ranger Safety Conference indicated that increased law enforcement authority was needed. None of the participants supported reducing the present authority. Eighty-three percent (83%) of the attendees felt that Title 36 should be consistent with state law. Many expressed concerns over recent changes in various State laws concerning concealed weapons. Drugs and alcohol were listed as one of the top sixteen issues facing Corps rangers. There was considerable discussion and concern that Title 36 did not adequately deal with the increasing use and presence of drugs and alcohol on Corps projects. Strengthening Title 36 would provide rangers with more authority to respond to

various problems routinely encountered.

The NRM Survey showed a great concern for regulation of alcohol. The survey report states, "The use of alcohol and drugs was seen as a major contributor to verbal/physical assaults against both rangers and visitors". Furthermore, over 70% of all respondents agreed that alcohol should be more heavily regulated at Corps projects. Currently alcohol use is not specifically addressed in Title 36. Alcohol restrictions are currently regulated under 327.12a, Restrictions.

As early as 1982, the Summary Report on Visitor Safety and Security at Corps of Engineers Projects (WES Technical Report R-82-1) recognized that the Corps was not meeting minimal visitor protection requirements and recommended that the Corps embark on a multiple-strategy approach to improving this situation. One of the strategies recommended was a revision of Title 36. The report states,

"As the primary intent of the Title 36 focuses on the protection of government property, the Corps should consider broadening the scope of its regulatory authority to include a wider range of visitor protection issues."

Furthermore, the Summary Report indicates that disturbing the peace, theft, and vandalism was listed most frequently as the crime encountered by visitors. In addition, the visitor survey reported 30% of the visitors indicated that the rules should be more strictly enforced; 62% thought that enforcement should remain unchanged; and that only 2% of those surveyed thought the rules should be less strictly enforced.

In 1991, HQUSACE solicited field input for revising Title 36. However, Title 36 was not updated. The Review Committee reviewed some of the comments submitted from the field and other federal land management agency regulations. A list of recommendations for revising Title 36 that would improve ranger safety, as well as visitor and resource protection is found in Appendix I.

Comments from SWD indicate that fines and imprisonment sentences for Title 36 offenses were raised on 6 November 1991. They cite 18 USC, Section 19. This information needs to be researched from Office of Counsel. Preliminary research by the Review Committee on this subject indicates that magistrates can now assess punishment for Federal Petty Offenses of six months imprisonment and/or up to \$5,000. Title 36 CFR Engineering Pamphlet should reflect this change. In addition, Office of

Counsel should coordinate with Department of Justice to adjust forfeiture collateral schedules, accordingly.

Potential Solutions:

- ▶ Revise Title 36 through the normal HQUSACE revision process.
- ▶ HQUSACE task a District to solicit field input and consolidate all proposed changes, work the revisions through the Federal Register process, ensure printing of the Engineering Pamphlet, and develop reproducible plates for sign purposes.
- ▶ Contract to revise Title 36.
- ▶ Task Office of Counsel to coordinate with DOJ for adjustments in forfeiture collateral schedules in accordance with 18 USC, Section 19.

Resources:

Costs: There would be an increase in funding requirements for printing and sign changes.

FTE: There would be no increase in FTE, however, time would be devoted to the update process.

**7. Organization/Structure:** The structure and organization of the Corps of Engineers, in regard to natural resource and recreation management, is such that it is not providing in-house visitor safety and protection services at a level that is provided by other federal and state land managing agencies. There is a perception in the NRM element that senior leaders in the Corps would like to "Get the Corps out of recreation." Approximately fifty percent of the recreation areas on Corps projects is leased to another agency for management. The 1990 Recreation Study looked at avenues of state-wide operation of Corps recreation areas. State agencies have been reluctant to take on this responsibility. The current efforts in the Recreation Partnership Initiative encourages private sector development and operation of new recreation areas. The Corps is continually looking at alternative ways to providing recreation opportunities while reducing the Corps operation and maintenance funding requirements.

Of the top sixteen issues identified at the Visitor/Ranger Safety Conference, the commitment to ranger safety was prioritized as number three and the lack of organizational

consistency was ninth. The audit report concluded: "The projects visited generally complied with established HQUSACE guidance, although there were instances of noncompliance in certain areas."

In the 1974 report, there is a statement taken from a study conducted by Edward C. Crafts and published by the Corps in 1970 titled, "How to Meet Public Recreation Needs at Corps of Engineers Reservoirs" which is as follows:

"Prevalent was a practice of lax, indifferent, or loose administration founded on the philosophy of leaving people alone to do what they want. This may be partly a subconscious extension of the Corps 'good guy' philosophy ... More fundamentally it is a failure to appreciate or accept the public management responsibility which the Corps has to protect the resources and facilities entrusted to it, as well as to protect, lead, and service the users of such public property. In stronger terms, it is an abdication of management responsibility."

"From such permissiveness, indifference, or inability to act stems part of the Corps' problems on fees, enforcement, vandalism, crowding, exclusive private use, etc. Loose administration is believed partly deliberate policy, partly a feeling of helplessness, and partly the result of insensitivity, frustration, and immobility of Corps personnel."

Many improvements to the Corps Visitor Assistance Program have been made since this was written. Improvements in park design, specific policies and program guidance for visitor assistance, authority for law enforcement cooperative agreements, implementation of a user fee program, private exclusive use policies, and most recently approval of an NRM mission statement. The Corps NRM mission statement signed by Dr. Zirschky, Acting Assistant Secretary of the Army (Civil Works).

Department of the Army  
Mission Statement  
Civil Works Natural Resources Management Program

The Army Corps of Engineers is the steward of the lands and waters at Corps water resources projects. Its Natural Resources Management Mission is to manage and conserve those natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations.

In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance and restoration practices.

The Corps manages for long-term public access to, and use of the natural resources in cooperation with other Federal, state and local agencies as well as the private sector.

The Corps integrates the management of diverse natural resource components such as fish, wildlife, forests, wetlands, grasslands, soil, air, and water with the provision of public recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life.

Although the program has made significant improvements over the years, there is still a perception by some as a lack of commitment by senior leaders to the natural resources and recreation programs. Lack of commitment to the Corps role in recreation extends itself to the perception of lack of commitment to ranger safety. Following is a discussion of the various issues concerning the organization and structure of the Corps as it relates to visitor and ranger safety.

#### **a. Commitment to Ranger Safety**

Issue Statement: There is a perception in the field that the visitor assistance regulation and policies do not reflect a commitment to ranger and public safety.

Discussion: ER 1130-2-420 continuously emphasizes that the safety of rangers is of paramount importance. The regulation describes the purpose of surveillance to "observe activities and conditions on the projects land and water in order to assist the visitor and to insure the protection of project resources. Personnel involved in surveillance will exercise discretion to avoid potentially hazardous situations." However, it is perceived by many rangers and managers that there is not a commitment to visitor and ranger safety. This perception may stem from inconsistent policy compliance and lack of program accountability. There is inconsistent administration of the program at every level of the Corps, which leads to confusion, indecision, and frustration for employees. These states of mind, in themselves, create unsafe situations for both the public and the ranger.

Potential Solutions:

- ▶ Provide a clear vision statement for the Corps role in recreation and develop goals, objectives and policies consistent with this vision.
- ▶ Recognize visitor protection as an essential mission and an inherent part of the overall natural resources management program.
- ▶ Ensure compliance and consistent implementation of policy by providing oversight and quality assurance at all levels.
- ▶ Establish an interdisciplinary team at the division level comprised of representatives from Natural Resources Management, Provost Marshal, and Safety Offices responsible for all aspects of visitor and ranger safety, i.e. training, incident reporting, equipment, etc. that reports directly to the Division Commander.
- ▶ Include ranger and visitor safety performance measurements in Command Management Reviews and as objectives in Total Army Performance Evaluations (TAPES).
- ▶ Ensure additional Command emphasis and accountability at all levels.

Resources:

Costs: There would be an increase in costs associated with development of clear vision statement, goals and objectives, if a task force was formed to coordinate this effort with HQUSACE and senior leaders. There may be additional travel costs for staff visits. However, there would be no additional funding required if ranger safety was emphasized in existing command inspections.

FTE: No Change

**b. Information Network:**

Issue Statement: A better mechanism to share information related to visitor and ranger safety is needed.

Discussion: There is not an established consistent network or medium by which to share information concerning visitor and ranger safety, as well as other topics relating to natural resources and recreation management. There was agreement at the Visitor/Ranger Safety Conference on the need to develop better mechanisms to share information. The frequency of ranger NRM

conferences varies greatly from district to district. In some cases, division level conferences are non-existent.

There are existing sources of information. The Natural Resources Technical Support (NRTS) program at WES has initiated a Natural Resources Technical Note Series as a forum whereby information and technology pertaining to recreation and natural resource management can be widely disseminated to district and division offices. The Natural Resources Technical Notes can be used as platform for sharing innovative visitor/ranger safety information. These information exchange mechanisms are good but are somewhat underutilized. NRTS also maintains a computer Bulletin Board Service (NRRP/NRTS BBS). The BBS is available to Corps recreation and natural resources personnel to provide a better understanding and access to NRRP and NRTS programs and their resulting products. The NRRP/NRTS BBS allows rapid real-time access to NRRP/NRTS technology, bulletins and conferences. It can also be used as a platform to disseminate a host of visitor/ranger safety information to Corps projects.

There was also interest in development of a Corps Ranger Association expressed at the Visitor/Ranger Safety Conference. This professional association would be responsible for the publication and dissemination of information regarding issues of concern and importance to members of the natural resource management team. It would serve as a forum through which members can exchange ideas, educational information, and promote professionalism. The Corps Ranger Association could sponsor nation-wide ranger conferences, similar to the Visitor/Ranger Safety Conference. However, these conferences could be structured to allow for more open discussions, provide training, and attendance would not be a restricted. This could also serve as a forum to raise issues to HQUSACE and monitor overall program improvements.

Existing professional organizations also provide for a means of sharing information. Park Law Enforcement Association (PLEA) was established to improve park law enforcement and natural and visitor protection services in park, recreation, and natural resource areas through professional development. Further, PLEA's goals are to ensure quality leisure opportunities in local, state, and national park, recreation, and natural resource settings.

Morale, pride, and professionalism will improve and give more strength to the commitment and pride already felt by rangers and managers with an improved communication network.

Potential Solutions:

- ▶ Support the establishment of a "Corps Ranger Association."
- ▶ Encourage participation in the PLEA, an affiliate of the National Recreation and Park Association.

Resources:

**Costs:** Funding for ranger conferences or attendance at PLEA functions would increase over current spending levels for these activities. Costs for establishing a Corps Ranger Association would not be funded by the Corps, but rather by individual membership dues.

**FTE:** Staffing requirements would not increase. Persons who would serve as representatives, directors, or officers in a ranger association could be structured as collateral duty.

**8. Park Design, Operations and Management:** There are problems being experienced at many Corps recreation areas relative to visitor, ranger and park attendant safety, as well as security, vandalism and damage to facilities and natural resources. Several concerns were identified during the Visitor/Ranger Safety Conference and from the survey, that are closely associated with the primary issue of park design or operations and management. Because of this close relationship, these concerns are being treated as sub-issues for the purpose of this report. Even though there is some overlap and similarity in their relevance to the primary issue, these sub-issues are presented separately because of their individual impacts and the importance placed on them by the rangers and managers.

**a. Park Design**

Issue Statement: Poor design and ineffective and/or inappropriate operations and management practices affect the safety of visitors, rangers and park attendants, as well as potential vandalism and damage to facilities and resources.

Discussion: This issue was among the top sixteen issues identified at the Visitor/Ranger Safety Conference. It ranked ninth in importance with the managers and appeared as related sub-issues in six of the top twenty-eight concerns identified by the rangers. The NRM Survey reported that the most significant responses associated with improving overall park safety were relative to park design and operations. For example, most

responses included such things as a need for separation of uses (78%), attended entrance stations (74%), nightly gate closing (68%), limiting the number of entrances to areas (62%), and enforcement of carrying capacities (62%).

Multiple activity uses can lead to damaged facilities and natural resources, but more often it is one of the primary contributors to conflicts among users. These conflicts adversely affect visitor and ranger safety and have serious negative impacts on the visitor's recreation experience and perception of the Corps. Separation of uses is a basic design problem and can be resolved with better park design.

This issue is within the Corps' current authority to correct, but needs more policy emphasis and support from headquarters or the Secretary of the Army to affect necessary changes. The need for proper design and operations of recreation areas is recognized and required by regulation, ER 1130-2-400, Management of Natural Resources and Outdoor Recreation at Civil Works Water Resource Projects and is specifically cited as a means of reducing visitor problems in ER 1130-2-420. It is apparent, however, that some managers, for what ever reason, have not utilized the various available design measures and/or operations and management techniques that would benefit the overall Visitor Assistance program.

Current budget guidance requires that efficiency improvements or additions be "flagged" and require special justifications. They can be put in either non-deferrable or deferrable depending on the degree to which safety is impacted. Most often, such items are non-deferrable and are not funded. Design changes for public safety need to be included in the justifications. Changes in park design and rehabilitation of facilities are usually funded with Special Recreation User Fees (SRUF). Currently, there is insufficient funding and priority to make the needed design changes. Greater emphasis in this program area by Commanders and HQUSACE would aid in completing design changes beneficial for visitor, ranger and park attendant safety.

#### Potential Solutions:

- ▶ Provide additional training and support resources for the nation-wide exchange of information on design and operations and management techniques.
- ▶ Provide a special funding program or specific guidance in the budget EC for the purpose of making the necessary design changes for public safety.

- ▶ Provide field review and input during all planning and design phases for future recreation areas and improvements to existing areas, such as an interdisciplinary team approach to design assessment.
- ▶ Ensure Command emphasis for proper design and operations and track progress via performance measurement systems, peer review and command inspections.

Resources:

Costs: Initially there would be a great increase in funding costs for area improvements and training. This would decrease over time as the program progressed from rehabilitation work to routine operations and maintenance. Furthermore, the resulting decreases in crime and damage to resources and facilities will result in decreased operations and maintenance costs and significantly offset the initial design change costs.

FTE: There should be little or no change in FTE requirements to implement improved park design. Rangers would spend less time performing Title 36 enforcement related to poor designs such as inadequate parking.

**b. Overcrowding**

Issue Statement: Overcrowding leads to damaged facilities and natural resources and contributes to conflicts among users that adversely affect visitor and ranger safety.

Discussion: Overcrowded conditions limit the visitor's ability to have an enjoyable outdoor recreation experience and contributes to conflicts among users. These effects result in frustration that often manifests itself in the form of increased vandalism, littering and a poor public image of the Corps. This issue was identified by both rangers and managers as one of the leading causes of confrontation between visitors and between visitors and rangers. It is also one of the primary causes of site degradation and damage to natural resources. This problem can be solved through the Corps' existing authorities and policies.

Potential Solutions:

- ▶ Conduct carrying capacity studies at the project level using the NRRP guidance contained in the publication entitled "Recreation Carrying Capacity Handbook, Methods and Techniques for Planning, Design and Management" and other

NRRP technology.

- ▶ Use NRTS technology application activities such as training or workshops to address Corps-wide project carrying capacity needs.
- ▶ Control access to areas when the capacities are reached.

Resources:

**Costs:** An increase in cost will be necessary to cover the expense of performing carrying capacity studies and the various physical changes to the park that will be required to provide adequate controls (i.e. providing a gate). These costs should be offset in the future through reduced operations and maintenance costs.

**FTE:** No change.

**c. 24-Hour Park Operations**

Issue Statement: Allowing parks, particularly unattended day use areas, to remain open at all hours has led to visitor and ranger safety problems especially at night.

Discussion: Some rangers and managers feel that the Corps has a duty to respond to visitor needs on a 24 hour, seven day a week basis. To do so, many projects operate a second and/or third shift ranger patrol at night. Limited personnel often dictates that the ranger must work alone. Night patrol may also portray a greater law enforcement image and puts the ranger at greater risk. Closing unattended day use recreation areas (picnic areas, beaches, etc.) after dark is common practice at most other federal, state and municipal parks regardless of the enforcement authority of their rangers. Permitting all night boat ramp access often limits the Corps capability of closing day use areas. Individual gates to picnic facilities and beach entrances are sometimes needed.

Closing day-use areas after dark is a common practice at some Corps areas. This process may put the ranger at risk when approaching remaining vehicles in the area to request they leave. In some locations, such service is contracted either by law enforcement personnel or adjacent campground gate attendants.

Potential Solutions:

- ▶ Close day-use areas at night.

- ▶ Include provisions for gate closures in law enforcement cooperative agreements.

Resources:

Costs: Costs to provide the necessary access controls would increase, but the operations and maintenance costs will be greatly reduced. Purchase and installation of gates range from \$400-\$1000 depending on the type of gate. There would be lower utility costs, fewer damage repairs, and less labor costs required for around-the-clock patrols in unattended day use areas.

FTE: Personnel requirements to staff 24-hour patrols will be reduced. These FTE can be more efficiently utilized in other needed areas at the project.

**d. Alcohol Use**

Issue Statement: Misuse of alcohol is a contributing factor in visitor conflicts, damage to public and private property, and personal injury accidents at Corps managed recreation areas.

Discussion: The NRM Survey revealed that alcohol abuse at Corps sites was consistently ranked by the respondents as a major factor adversely affecting visitor safety. The misuse of alcohol and drugs was reported as a major contributor to verbal and physical assaults against both rangers and visitors. Over 70% of all respondents to the survey agreed that alcohol use should be prohibited at Corps projects. This issue was also among the top sixteen issues identified at the Visitor/Ranger Safety Conference. The majority of the rangers and managers at the conference agreed there is a need for stronger enforcement through law enforcement agreements and changes in Title 36. There was also sentiment toward the total ban of alcohol at Corps projects. The majority, however, favored selective banning ("alcohol free zones"), a total ban at beaches, and limiting alcohol sales by concessionaires and lessees. Due to the controversial nature and complexity of this issue, any restrictions will require careful study, justification based on safety and maintenance considerations, and support of local officials.

A data call on alcohol free areas Corps wide was requested by the Review Committee. Of the 16 districts that responded, a total of 33 projects have alcohol bans on the entire projects. An additional 476 day-use areas and 47 beaches have alcohol bans. The first season where alcohol restrictions were posted required

a major education and enforcement effort. After the initial policy change, the public reception was very positive. Guidance on alcohol restrictions is available from the Pittsburgh District, "Establishment of a Ban on Alcoholic Beverages at Pittsburgh District Flood Control Projects."

Potential Solutions:

- ▶ Prohibit alcohol at all Corps projects
- ▶ Prohibit alcohol at day-use areas only
- ▶ Conduct project wide assessments of "problem areas" associated with alcohol and ban alcohol at those areas.

Resources:

Costs: There would be a slight increase in costs associated with the posting of additional signs for enforcement purposes.

FTE: There would be a short term shift of resources for initial enforcement efforts. There would be no long term changes in FTE requirements.

**e. Contract Park Attendant Safety**

Issue Statement: In many cases park attendant safety is jeopardized because they are normally located in somewhat remote locations and may often be in possession of large sums of money.

Discussion: The use of park attendants has been a successful means of controlling parks and reducing incidents of crime and other visitor problems. However, they are also being placed in a dangerous situation due to the remoteness of some work sites and the handling of use fees. The protection of park attendants was a significant issue identified by the NRM Survey and at the Visitor/Ranger Safety Conference. Both of these sources of information also revealed discrepancies in operational practices and compliance with regulations. In some areas, basic protective measures associated with protection of money and personnel are being ignored, such as providing safes, adequate lighting, frequent fee collection and/or deposit, and communication equipment.

In addition to gate attendants for fee collection, the Corps uses park attendants for custodial services and volunteer hosts. Sometimes, park attendants provide more services than just fee collection including park management and security and in some

cases, maintenance duties. These contract employees and volunteers sometimes confront vandals or are asked to resolve user conflicts which may put them at risk.

Potential Solutions:

- ▶ Ensure command emphasis to provide recognition of the dangers faced by park attendants.
- ▶ Elevate awareness of the various techniques available to enhance protection, and to insure compliance with policies and regulations pertaining to the collection and handling of use fees.
- ▶ Establish physical security standards for gate house dependent on the risk level.
- ▶ Require basic protective measures such as providing safes, adequate lighting, frequent fee collection and/or deposit, and reliable communication equipment.

Resources:

Costs: There will be an increase in cost to provide the necessary safeguards. Costs would vary depending on the types of modifications needed.

FTE: No change.

**f. Collection and Transportation of Cash**

Issue Statement: Large sums of money or even the perception that large sums exist may attract a more dangerous criminal element to project recreation areas, thereby increasing the chances of being harmed should a robbery occur.

Discussion: Although not specifically addressed in the survey, this matter is a concern closely associated with the park attendant safety issue. The advent of the new day use fee program has significantly increased the amount of money being handled by rangers or gate attendants. The collection and transportation of cash from park attendants or rangers (day use and camping) and from honor boxes places the safety of park attendants or rangers in jeopardy in the event of a robbery. Often, the Corps shifts the safety risks from the ranger to the park attendants.

Potential Solutions:

- ▶ Have park attendants collect fees from honor boxes.
- ▶ Eliminate honor boxes and collect fees with a park attendant.
- ▶ Have two rangers accompany each other when transporting fees.
- ▶ Have armed escorts provided by police under law enforcement agreements.
- ▶ Contract collection from honor boxes with security transport services.
- ▶ Conduct risk analysis on the collection and transportation of cash for each area.

Resources:

**Costs:** There could be significant increases in funding requirements depending on the collection procedure used.

**FTE:** A slight increase in FTE could be realized if the "two ranger" option is utilized. There probably would be no net increase since that second ranger would be pulled from other duties to help collect fees.

**g. Interpretation**

Issue Statement: There is sometimes a lack of knowledge of park rules and regulations as codified in Title 36 by the general public.

Discussion: It is the opinion of many rangers and managers that the public's lack of knowledge of the Corps rules and regulations contained in Title 36 contributes to violations and increases the risk to ranger and visitor safety. Language barriers and sometimes limited English reading skills also contribute to a lack of understanding of Title 36. It was the consensus of opinion at the Visitor/Ranger Safety Conference that the present interpretive and public information programs are not adequately addressing this problem. It is the opinion of this Review Committee that this lack of knowledge of park rules by visitors is a significant ranger safety issue.

The FTE resources are not available for an extensive Interpretive Services and Outreach Program (ISOP). Non-personal interpretation such as exhibits, posters and pamphlets are

frequently the only interpretive media utilized. Command attention is probably needed to shift the current emphasis away from the more traditional approaches to interpretation of the Corps mission and function. These programs are not to be abandoned, only supplemented. Interpreting Title 36 could be incorporated as a HQUSACE theme focus of ISOP.

Ranger safety and visitor safety is sometimes jeopardized because the public may be unaware of the limited authority of Corps rangers. Visitor often asked for ranger's assistance in resolving domestic disturbances, alcohol consumption by minors or illegal use of drugs. If the park visitors knew that rangers have no authority in these areas, they may not request assistance from rangers. On the other hand, some rangers feel that if visitors were aware of the ranger's limited authority, they would have less respect for their authority and hinder compliance with Title 36.

Potential Solutions:

- ▶ Include information concerning Title 36 in existing interpretive efforts.
- ▶ Make a concerted effort to educate the public about the visitor's responsibilities with regard to complying with the rules and regulations contained in Title 36.
- ▶ Educate the public about the limited authority of Corps rangers.
- ▶ Provide Title 36 signs and pamphlets in Spanish or other predominant languages.

Resources:

Costs: There should be little increase in funding, since the primary change will involve only what is emphasized in interpretive programs, not necessarily the frequency or method. There would be an increase in printing costs for bi-lingual Title 36 pamphlets.

FTE: There would be no change in FTE if the current level of interpretive efforts is maintained.

**9. National Crime Information Center (NCIC)**

Issue Statement: U.S. Army Corps of Engineers park rangers do not all have access to the National Crime Information Center

(NCIC), which may jeopardize the safety of rangers.

Discussion: Access to NCIC is needed to provide necessary information for the execution of the Congressionally mandated Title 36 Program and to provide a higher level of safety to our rangers and visitors. NCIC is a nationwide computerized information system established as a service to all criminal justice agencies. The Federal Bureau of Investigation (FBI) administers this program. Army Regulation 190-27, Army Participation in National Crime Information Center, provides policies and procedures for Army participation in the NCIC. It supplements standards and procedures established in the NCIC Operating Manual and the National Law Enforcement Telecommunications Systems (NLETS). Within the Army, the Deputy Chief of Staff for Operations and Plans (DCSOPS) is responsible for establishing policy and procedures for the Army's participation in the NCIC and NLETS and will act as approval authority on requests for participation and coordinate Army participation with the FBI and NLETS.

The authority for Army law enforcement agencies to access NCIC files is based on AR 190-27, user agreements between the installation law enforcement activity and the respective State Control Terminal Agency (CTA), and issuance of an Originating Agency Identifier (ORI) NOTE: The ORI is an identifier assigned by the FBI to an agency meeting the criteria for participation in the NCIC. All transactions must be according to the standards of AR 190-27, the NCIC Operating Manual, State user manuals, and State user agreements.

NCIC use is limited to authorized criminal justice purposes and dissemination of information is based on an official need to know.

NCIC "terminal operators" are authorized access to the following NCIC files in the performance of their official duties: Vehicle; License Plate; Boat; Gun; Article; Securities; Wanted Person; Missing Person; Canadian Warrant; U.S. Secret Service Protective file; Unidentified Person; ORI.

To be considered for participation and assignment of an ORI, an activity must meet the standards of the NCIC and the state CTA. Requests for participation are initiated by the Provost Marshal and submitted to the installation commander who sends the request to the MACOM commander.

Rangers and managers at the Visitor/Ranger Safety Conference clearly articulated the need for access to NCIC Information on

Title 36 violators as well as information on criminal offenders who may present a threat to rangers and visitors. They indicated that NCIC is necessary to ranger safety during job performance and that the Corps should provide access to NCIC at all Corps projects.

NCIC access is specifically needed to facilitate the issuance of citations pursuant to Title 36. According to the NRMS, 13,809 citations and warnings were issued in 1994 for offenses associated with vehicles. Frequently drivers of vehicles are not available to provide the information necessary to initiate the citation process in a timely manner. Additionally, 372 citations were issued for offenses involving explosives and weapons. Access to NCIC is also needed to properly identify offenders and provide wants/warrants information which will greatly enhance safety by precluding a potentially hazardous contact.

The 1994 SAD study also recognized this problem and concluded that NCIC information may prevent rangers from entering potentially dangerous situations. The SWD Ranger Safety and Security Task Force Final Report mirrored this sentiment and stated that "Ranger safety is being seriously compromised during Title 36 enforcement contacts due to our inability to access law enforcement information." The report went on to recommend, "For Ranger safety during an individual contact, access to automated information systems (ORI, NCIC) is an absolute necessity." Comments from the nationwide survey echoed the above sentiment.

Research by the Review Committee indicates that the legal basis exists to provide access to NCIC. AR 190-27 tells us that the NCIC is "limited to authorized criminal justice purposes." There is ample evidence to demonstrate that the duties performed by rangers in the enforcement of Title 36 are clearly for "criminal justice purposes." This evidence includes a letter from President Clinton when he served as Attorney General for the State of Arkansas and includes legal documentation in the 1974 "Report of the Secretary of the Army to the Congress." The legal basis for access to NCIC is found in Appendix J.

Although this report was prepared in 1974, the legal aspects are still relevant. There can be no doubt that Corps rangers perform "criminal justice" or "law enforcement" duties. The lack of arrest authority does not lessen their enforcement status and concurrently provides a sound basis to require access to the NCIC in order to perform their duties as codified in Title 36 and intended by the U.S. Congress.

The HQUSACE Provost Marshal has stated their position on this issue: "In the interest of safety, we need access to information - not our own NCIC terminal. We need query capability for our rangers, not the input capability." They are actively pursuing this issue with Headquarters, Department of the Army.

The North Pacific Division requested an ORI in 1992. Their request asked for a NCIC terminal which would not have been manned 24 hours a day. The request for a terminal did not meet the standards established in AR 190-27 and was denied.

In conclusion, the Review Committee feels that Corps rangers do not need their own NCIC terminal, only access to the information contained therein. Their duties legally constitute "criminal justice" duties and they should be accorded access to NCIC in order to accomplish those duties.

#### Potential Solutions:

- ▶ One ORI number for the entire Corps.
- ▶ Each Division obtains ORI numbers from their respective states.
- ▶ FBI authorizes access without an ORI number.
- ▶ Receive access thru the National Law Enforcement Telecommunication System.

#### Resources:

Costs: Costs would be minimal, as there would be no new equipment or significant training requirements.

FTE: No Change

## **10. Crime in the Parks**

Issue Statement: Crime in Corps parks is adversely affecting the safety of our visitors and rangers.

Discussion: Accurate crime data is essential in the analysis of visitor protection, projections of potential crime rates and future trends, and the assessment of Corps law enforcement requirements. Although, there is no direct correlation between crime statistics on a national basis and crime specific to Corps

projects, the crime 'picture' for the nation is indicative of crime trends in regions where Corps projects exist. Further, the close proximity of some projects to major metropolitan areas, allows crime in the cities to extend to Corps areas.

This section includes a discussion of national crime trends, comparative analysis of statistics from the National Park Service and national crime trends, and a review of available data from Corps projects. It is important to note here that a comparative analysis cannot be performed between the Corps and other Federal land management agencies. Poor record keeping on the part of the Corps has precluded such an analysis.

#### **a. National Crime Trend Data Sources**

There are three sources of data for an analysis of national crime trends. The two most prevalent sources are the FBI's Uniform Crime Reports (UCR) and the National Crime Victimization Survey (NCVS) which is sponsored by The Bureau of Justice Statistics (BJS). The NCVS does not include homicide. However, two other national sources of data about murder exist: The FBI's UCR, and "Vital Statistics of the United States", produced by the National Center for Health Statistics of the Centers for Disease Control and Prevention. This report will focus on data from the UCR and the NCVS. These complimentary series each contribute to providing a more complete picture about the extent and nature of crime in the United States. Together the NCVS and UCR provide a more comprehensive assessment of crime in the United States than could be obtained from either statistical series alone.

#### **b. Uniform Crime Report**

The UCR program measures police workload and activity. It collects information on the following crimes reported to law enforcement authorities: homicide, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson. These crimes are referred to as the UCR Index Crimes. Local police departments voluntarily report information to the Federal Bureau of Investigation including the numbers of crimes reported to police, arrests made by police and other administrative information. The UCR program has the following strengths:

- ▶ It can provide local data about states, counties, cities and towns.
- ▶ It measures crimes affecting children under age 12, a

By and large, personnel indicated that there is not a problem contacting law enforcement officials, this is attributed to the presence of the agreements. And due to the agreements, law enforcement responded quicker to calls. The general feeling was that visitors feel safer because of law enforcement agreements.

### Training

This population finds some skills more important than others for job performance. Skills considered most important were communication, public relations and conflict mediation skills. Subsequently, the skills that were used upon direct interaction with the visitor were the skills considered most important to job performance.

The various training courses were rated by personnel who have taken the courses, the mean rating of all the courses were between a B- and C. Most appeared to feel that there was a need for additional training courses. Lastly, no real distinction has been made on whether personnel believe that the Corps selects the right type of people to assist visitors.

### Management and Resources

NRMB personnel displayed a high level of agreement that management is concerned about safety issues. However, rangers were less liberal in their level of agreement; only half agreed. By the same token, most agreed that supervisors were attentive to safety concerns raised by field employees.

Overall, support resources do not appear to be intensely adequate. In fact, the support resources that were ranked first through fourth, only a little more than half agreed on their adequacy. Not surprisingly, the support resource found to be least adequate was staffing.

### Conclusions

The Visitor Assistance survey has provided a clearer picture of perceptions concerning safety for both NRMB personnel and visitors at Corps projects. It portrays safety as an issue but taking on untraditional measures to relieve the problem is not the popular choice. Also, NRMB field personnel act in a demanding role of providing visitor assistance and promoting safety to those enjoying recreational areas. However, clearly personnel do not

segment of the population that experts agree cannot be reliably interviewed in the NCVS.

- ▶ It includes crimes against commercial establishments.
- ▶ It collects information about the number of arrests and who was arrested.
- ▶ It counts the number of homicides (murders and manslaughters), crimes that cannot be counted in a survey that interviews victims. UCR also collects detailed information about the circumstances surrounding homicides and the characteristics of homicide victims.

### **c. National Crime Victimization Studies**

The National Crime Victimization Survey (NCVS) has continually surveyed households since 1973. It is the only national effort to provide accurate measures of crimes of violence and theft, both those not reported to law enforcement and those reported. The survey samples 43,000 U.S. households and 100,000 persons age 12 or older, and it reports on attempted as well as completed crimes. The NCVS has the following strengths:

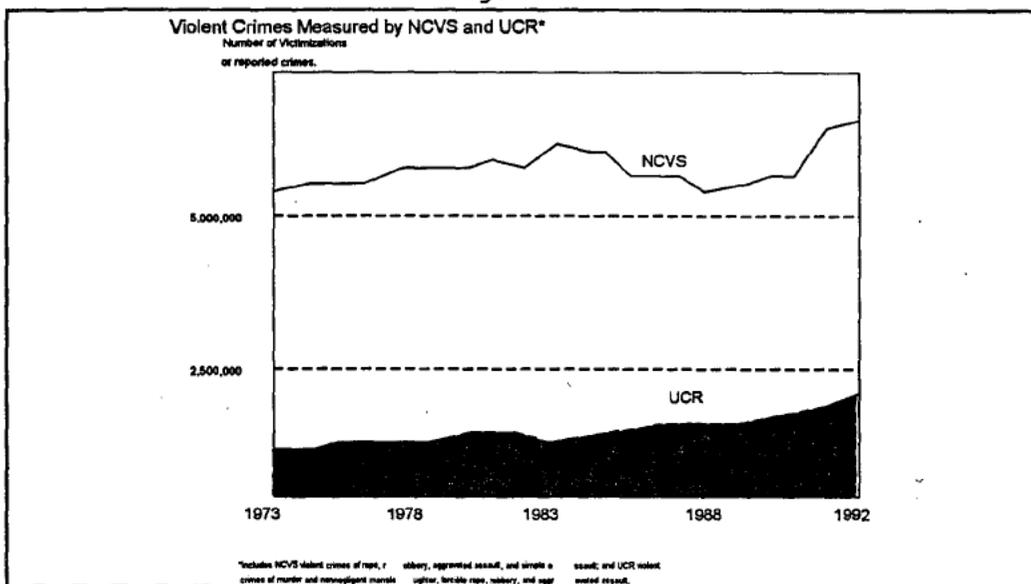
- ▶ It measures both reported and unreported crimes.
- ▶ It is not affected by changes in the extent to which people report crime to police or improvements in police record-keeping technology.
- ▶ It collects information that is not available when the initial police report is made including contacts the victim has with the criminal justice system after the crime, extent and costs of medical treatment, and recovery of property.
- ▶ It collects detailed information about victims and characteristics of the victimization including who the victims are, what their relationship is to the offender, whether the crime was part of a series of crimes occurring over a 6-month period, what self-protective measures were used and how the victims assess their effectiveness, and what the victim was doing when victimized.
- ▶ It includes special supplements about particular topics such as school crime and the severity of crime.

#### d. Summary of National Crime Trends

The 1974 Report of the Secretary of the Army to the Congress highlighted a significant amount of unreported crime that occurs at Corps projects. Although the reasons for non-reporting were somewhat speculative in nature, it is none the less safe to say that a significant amount of crime occurs on our projects that is not reported. Incident reporting is discussed further in paragraph 11.

The relative significance of unreported crime becomes readily apparent when a comparison of the UCR and NCVS results are charted in figure 3-3.

Figure 3-3



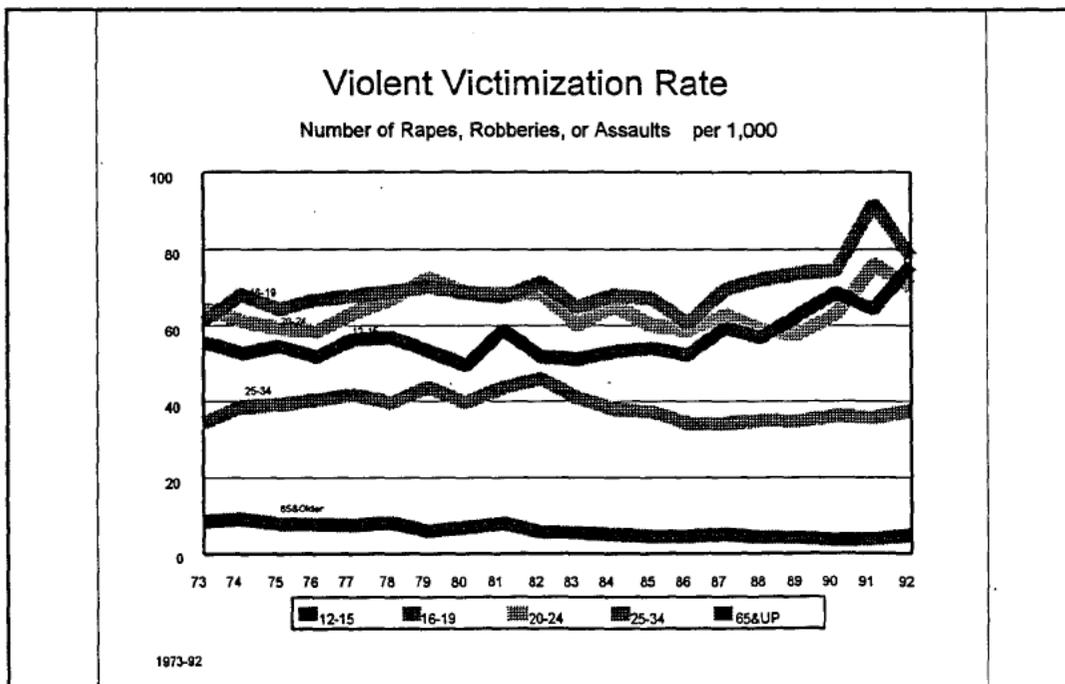
In the Bureau of Justice Statistics report titled "Highlights from 20 Years of Surveying Crime Victims, The National Crime Victimization Survey, 1973-1992", the most glaring finding was that nearly two-thirds of all crimes are not reported to police. Other highlights from this report are as follows:

- ▶ Overall crime rates have been stable or declining in recent years; however, violent crime has increased for some groups. Violent crime rates for teenagers increased in recent years, while rates for other age groups remained stable or declined. The violent crime rate for blacks in 1992 is the highest ever recorded.
- ▶ In general, you are more likely to become the victim of a

violent crime than to be injured in a motor vehicle accident.

- ▶ One in four households in the United States is victimized by one or more crimes each year.
- ▶ About half of all violent crimes and more than a third of all crimes are reported to police.
- ▶ Teenagers and young adults consistently have the highest victimization rates.
- ▶ Handguns are used in about 10% of all violent crimes. Handgun crime rates are above the 1986 low but have not returned to the 1982 high.
- ▶ About 30% of violent crimes and 25% of burglaries occur when the victim is engaged in a leisure activity away from home.
- ▶ In 1992 NCVS violent crime rates were unchanged from 1991 and were 9% below the 1981, the peak year. The rates declined partly because older persons, who experience less violent crime than younger persons, comprise an increasing proportion of the population.

Figure 3-4



- ▶ As Figure 3-4 shows, young people age 16-24 consistently have the highest violent crime rates. Trends in these age groups vary from year to year, but the overall trend has been increasing. The rate for those age 12-15 was the highest ever in 1992; It was the highest ever for those age 16-19 in 1991.
- ▶ Central cities, particularly those with populations between 250,000 and 499,999, have the highest per capita rates of violent crime.
- ▶ In 1992 residents of the Western States had the highest per capita rates of violent victimization, and those in the Northeast had the lowest.
- ▶ The usual seasonal pattern is for the high-crime months to occur in the summer and the low-crime months in the winter. Notable exceptions to this pattern are robbery and personal larceny with contact, which peak in December.
- ▶ About a third of victims of violence perceived the offender to have been using drugs or alcohol or both at the time of the offense.

One of the central concerns surfaced by rangers was the danger of being assaulted in the line of duty. Perceptions expressed by some of the ranger force are that as the violence in our society increases, so does their exposure to the risk of being assaulted in the line of duty. In light of the national trends in assaults and aggravated assaults, this concern is not unfounded.