Table of Contents, FY1996

LONG TERM RESOURCE MONITORING PROGRAM
ANALYSIS TEAM MEETING MINUTES

February 13 and 14, 1996
Holiday Inn, Davenport Iowa

A meeting of the Long Term Resource Monitoring Program (LTRMP) Analysis Team convened at 1:00 on February 13, at the Holiday Inn in Davenport, Iowa. Attending were team members and others from the states of Illinois, Iowa, Minnesota, Missouri, Wisconsin, the U.S. Fish and Wildlife Service (USFWS), the National Biological Service (USGS-NBS), the U.S. Army Corps of Engineers (Corps), the U.S. Environmental Protection Agency (EPA), the U.S. Natural Resource Conservation Service (NRCS), the U.S. Geological Survey (USGS), and the Minnesota/Wisconsin Boundary Area Commission. An attendance list is attached.

Analysis Team chairman John Wetzel welcomed team members and called the meeting to order. Following a round of introductions, John recommended including discussion of the UMRCC Wildlife and Fish Technical Section letters to EMTC on the meeting agenda. Gordon Farabee asked to include discussion of the LTRMP water quality procedures manual.

Chairman's Report

John Wetzel commended and thanked EMTC scientists for their presentations to the UMRCC at the September 13, 1995 meeting at Wyalusing, Wisconsin. The UMRCC board sent a letter to EMTC expressing appreciation for the LTRMP technical briefings. John said that Analysis Team ~~recommendations~~ about the LTRMP have been passed on to the EMPCC through Terry Moe, the Wisconsin EMPCC representative.

Center Director's Report

Bob Delaney said that the FY96 LTRMP Annual Work Plan has been distributed. Bob apologized for the late distribution of the plan, citing a long round of reviews and delays in printing.

At Bob's request, Steve Gutreuter reported that the LTRMP water quality procedures manual is being updated and a revised draft should be available for review in late May. The field stations are presently using the existing (unpublished) procedures manual, along with memoranda describing procedure modifications. Steve and Russ Gent observed that there is presently no problem with sampling procedures, but there was general agreement that an updated procedures manual should be given a high priority for publication and distribution to the field stations.

Steve Gutreuter responded to a question by Terry Dukerschein about management of quality control/quality assurance (QA/QC). The LTRMP formerly had a QA/QC manager, but his duties have since been distributed to other tasks. QA/QC is now being handled by the component specialists at EMTC and the field stations, using the procedures manuals. Terry asked about adherence to good laboratory practices (GLP). Steve said that GLP's have been standardized for analytical and other laboratories that generate data with human health implications, are subject to litigation, and to maintain standards for admissibility as evidence

in court. Costs for maintaining the highest standards of GLP's can be very high. Steve noted that GLP standards require a QA/QC manager, a position that the LTRMP program cannot afford. Dan Wilcox suggested that LTRMP QA/QC procedures should be adjusted to reflect the intended use of the resulting data to avoid costs associated with unnecessary quality assurance practices. Steve said that the LTRMP program presently employs and documents good laboratory and field procedures and maintains chain of custody records for samples.

Review of Meeting Minutes

John Wetzel asked if there were any corrections to the August 15-17, 1995 Analysis Team meeting minutes. Terry Dukerschein noted an incorrect statement on page 9. Terry said that there had been a misunderstanding about EMTC publication of reprints. Terry provided a corrected paragraph:

> Discussion ensued about the Goal 4 portion of the draft FY96 Annual work plan, beginning with the subject of distributing reprints of articles published in other journals under EMTC cover. John Barko expressed concern about the image of the EMTC, noting that some reprints were distributed that have no connection to the LTRMP. Norm Hildrum said that reprints are done quickly, are inexpensive, and do not delay publication of other reports. Terry Dukerschein was concerned that distribution of reprints under EMTC cover conveys the impression of an attempt to claim credit where it is not due, and this hurts the reputation of the program. Bob Delaney explained that permission is requested from authors and the original publishers and that his experience was that authors were always happy to grant permission. Terry recounted an incident where she was asked by EMTC editorial staff for permission to reprint a paper she had authored prior to being employed in the LTRMP, to be distributed as an EMTC reprint. After consulting co-authors, she made the decision not to grant permission for a reprint because no LTRMP time or funding had supported the project, and a reprint would appear to give credit where credit was not due. EMTC staff respected her wishes and did not reprint the paper. Dan Wilcox asked how distribution of reprints ranks in priority with production of technical reports. Norm Hildrum said that program reports often take priority in time due to distribution deadlines, and that technical reports undergo time-consuming review. Gordon Farabee and Tom Boland said that they appreciate receiving reprints of relevant articles. John Wetzel expressed remaining concerns about the cost. Dan Wilcox recommended that EMTC only distribute reprints of articles describing work funded by the LTRMP.

Tim Schlagenhaft moved and Tom Boland seconded acceptance of the previous meeting minutes as corrected.

Center Director's Report (continued)

Bob Delaney distributed lists of people invited to serve on the LTRMP Science and Management Review Committees. Bob stated a desire to include recommendations from the LTRMP program review in the 1997 EMP report to Congress. Bob said that the Review Committees should complete their work by the end of this calendar year.

The Management Review Committee will consist of two Analysis Team members (Tim Schlagenhaft and Tom Boland) and four others; one each from the USGS, NBS, USFWS, and Corps of Engineers. General Jerry Galloway has been asked, but his participation is not yet certain. The Management Review Committee should convene in about six weeks. They will be asked to review all aspects of program organization and management. John Wetzel asked the Analysis Team to review the list of reasons Bob Delaney distributed for the science and management program reviews, and to consider objectives for the reviews for discussion tomorrow.

Bob reported that the NBS/USGS merger is under way. The NBS budget for FY96 is $137,000,000. Bob distributed a handout with the language of the 1996 Interior Appropriations Bill. The USGS has been charged with developing the plan for merger and restructuring of the combined agencies. Gordon Farabee asked what the likely outcome will be. Bob estimated that the NBS will become a division of the USGS, with a new name. Bob expects that the FY97 federal budget will include further reduction of EMP funding, probably on the order of $2,000,000. NBS has tentatively identified about $100,000 this FY to EMTC for the maintenance management system. The funds will be used to replace or repair safety-related items at the field stations and at EMTC. Bob emphasized a need to further reduce overhead assessments on the LTRMP as funds become even more critical.

A strategic planning exercise will be conducted this year to plan for coping with the fixed LTRMP budget in the face of escalating costs. Barry Drazkowski will be meeting with field station leaders to discuss further alternatives for meeting future LTRMP budgets. Bob will provide drafts of the strategic plan to the management review committee, and will review the strategic plan draft with the Analysis Team at the next meeting. Don Williams noted a need for more interdisciplinary work to increase internal efficiencies. Don observed that refinements to the LTRMP should not wait for findings of the review committees. Bob Delaney said that ongoing work and program refinements will continue in the mean time. Ken Lubinski asked if the USGS will assign overhead assessments to the program. Bob estimated that the USGS overhead assessment will be 15 percent, but that the amount will depend on the Corps/Interior agreement that needs to be updated. Bob noted that the Corps has not been charging administrative costs to the LTRMP budget for the last two years and has not imposed "savings and slippage" assessments.

Bob reported that a new Executive Order on recreational fisheries has been signed requiring federal agencies to identify recreational fishing opportunities that are limited by water quality and habitat degradation. Bob thought that this effort could lead to a broader strategy for habitat restoration, like the North American Waterfowl Management Plan.

Overtarget Items

Norm Hildrum opened discussion referring to the current list in the FY96 Annual Work Plan. Bob Delaney reported that about $142,000 is available for funding overtarget items from LTRMP funds unexpended over the last five years. Bob recalled that Norm distributed a list of over 70 items at the last Analysis Team meeting that was compiled from a series of past overtarget lists and partner expectations surveys, and asked the Analysis Team for recommendations from the overtarget list. Bob said that priorities for LTRMP expenditures do

change with time. Presently, the first priority on the overtarget list is to pay for publication of the Large Rivers Conference reports. Ken Lubinski explained that the $37,000 cost increase resulted because an anticipated $25,000 funding from the U.S. EPA was not provided. Also, four volumes (rather than the one anticipated) of the journal Regulated Rivers were published and over 800 copies were made by the publisher for distribution. Walter Redmon confirmed that EPA funds for cost-sharing publication costs of the large rivers conference were not available. Bob asked that Walter inquire within EPA about providing the scheduled $25,000 cost-share. Walter said that he will see if EPA funds may still be made available to support publication of the conference proceedings.

Bob said that the second priority item on the EMTC-proposed list of over- target items was to accelerate completion of the fish passage study. The next was to publish the status and trends report. Don Williams noted that publication of the status and trends report was included in the FY95 Annual Work Plan. Bob said that the report grew in scale with additional chapters and analyses. Norm remarked that the publication will be slicker than was originally anticipated, so they decided to include the added publication costs as an over-target item. A second "executive summary" version will also be produced. The proposed fourth priority item was to administer a public survey, the fifth was to accelerate report publication, and the sixth was to conduct hydrodynamic modeling of Pool 8. Jerry Skalak observed that the completion dates identified for over-target items in the FY96 Annual Work Plan assumed provision of funds at the beginning of the fiscal year. Norm said that the over-target list was prepared last September.

Tim Schlagenhaft observed that the EMTC-proposed list of over-target items didn't include some of the State top priorities. Norm said that No.6 (hydrodynamic modeling of Pool 8) averaged No.2 priority among the State reviewers, and No.5 (report publication) averaged No.10. Bob explained that the fish passage work is a continuation of a FY95 activity. Bob said that they made the decision to pay for publishing the large rivers conference proceedings first priority. The fish passage study was included as a high-priority over-target item because of interest expressed by Wisconsin and the U.S. Fish and Wildlife Service. The public survey was included because cost-sharing was anticipated and because it is a continuation of an activity initiated last year.

Tim Schlagenhaft said that he expected that the Analysis Team would have influence on work proposed in the over-target list. Tim observed that the matrix of respondents preferences that Norm distributed included a number of people who are not Analysis Team members. Tim emphasized that the over-target funding priorities should be set by the Analysis Team. Bob Delaney said that complete concordance between the EMTC-proposed list and Analysis Team priorities is unlikely, given program administration needs. Bob emphasized that the EMTC was not trying to exclude the Analysis Team from decision-making.

John Wetzel asked what over-target funds are really available, since they apparently have not been provided yet this fiscal year. Don Williams said that the Corps North Central Division and the EMTC have been working to nail down the actual amount available for over-target work. Tracking unexpended funds from expired interagency agreements over several fiscal years has proven difficult. John Wetzel suggested that the Analysis Team meet at 7:OO that evening to review the over-target items list and to develop recommendations. Ken Lubinski advised the Team not to mistake the EMTC-proposed over-target list for over-all LTRMP

priorities. Ken noted a need to improve the process for developing the LTRMP research agenda and for use of discretionary funds. Ken Barr asked which of the proposed over-target work items have "sunk costs" (funds already expended). Bob Delaney said that No. 1 (conference proceedings), No.2 (fish passage study), No.3 (status and trends report), No.4 (public survey) were initiated last year.

UMRCC Ecosystem Proposal

Dan McGuiness explained that the UMRCC has asked the Wisconsin/Minnesota Boundary Area Commission (BAC) to assist in developing a proposal for ecosystem management for the UMRS. Dan said that the BAC has a staff of five and an annual budget of about $375,000. The BAC is involved because it has a long history with federal and state river management activities, and because Dan has a long history of involvement with UMRS planning activities; with GREAT, the Environmental Work Team, and Master Plan. Dan remarked that there is much new knowledge about the river, and much has changed. The BAC commissioners voted to provide planning support to the UMRCC.

Dan said that he wants to work on a process for developing an action plan for management of UMRS natural resources. The plan could go forward to Congress as companion to the Corps Navigation Study, it could be a part of the EMP report to Congress, it could be a spin-off from the UMRS Environmental Summit, and it could include the adaptive environmental assessment process. Dan will visit many river managers/administrators, and the LTRMP field stations. A concept for this process was presented at the first UMRS Environmental Summit meeting, "Integrating Science and Politics for the Upper Mississippi River." Dan explained that the BAC planning support to the UMRCC relates to the LTRMP Goal 3 activities. Dan proposes to be a facilitator and report writer in this effort. The UMRCC/BAC needs to decide in 1997 about inclusion of this planning process report with the EMP report to Congress. Dan Wilcox asked Dan McGuiness about his views on prospects for an officially-sanctioned and funded collaborative planning process for integrated environmental management of the UMRS. Dan McGuiness in turn asked who would lead such an effort, noting that even partnerships need leaders. Bob Delaney asked if there will be written proceedings from the UMRS Environmental Summit. Dan said that there will be, including a vision statement and summaries of issue task group deliberations. Bob asked about the Natural Resources Defense Council (NRDC) reports that were presented at the Summit meeting. Dan said that the NRDC presented one report proposing modifications to river regulation for Pool 5, and another report on a strategy for river management. Ken Lubinski remarked that the UMRCC has been exploring how comprehensive management can be attained, first by developing ecosystem plans for selected navigation pools, and through participation in an adaptive environmental assessment process (AEA). The AEA process involves quantitatively estimating relationships between the human economy, ecology, and society. Dan McGuiness said that the UMRCC report will focus on ecosystem needs. Dan Wilcox asked if that means defining what would be sustainable ecosystem states? Dan McGuinness and Jon Duyvejonck affirmed that the focus will be on the future condition of the river as desired by the UMRCC natural resource managers. Dan clarified this concept by explaining that a first priority could be to maintain what is left (of the river ecosystem structure and function), a second priority could be to restore, and lastly to provide for human use.

Public Survey

Dan Wilcox explained that the LTRMP public survey is part of the LTRMP Operating Plan Goal 3 work that is intended to provide agencies with essential building blocks for planning for river management. The public survey was designed last year, with considerable consultation and input from social scientists from the UMRS state natural resource agencies and the U.S. Fish and Wildlife Service. The public survey has been designed to be a quantitative sampling of public knowledge and expectations about condition of the UMRS. A narrative on the survey design rationale, the survey questionnaire, and a scope of work for administering the survey under contract was distributed to the Analysis Team prior to the meeting. Dan introduced Dr. Gary Nelson, social scientist from the St. Paul District, Corps of Engineers, who designed the public survey.

Gary reiterated that the public survey is designed to determine what the public knows and expects about the river. The primary contribution of the survey will be to provide quantitative information about public expectations about the river within the context of other competing issues. Administration of the survey would include a pre-test and refinement of the questionnaire. The survey would be conducted by telephone. The survey is designed to address sampling error, but the costs (and sample size of number of people contacted) would go up along with increased certainty (smaller error bounds). Joe Jordan asked about the sample size. Gary said that the pre-test will reveal sample variability and the number of contacts needed to attain a desired level of certainty of results. Generally, public surveys of this type have sample sizes between 500 to 1000. Bob Delaney asked about the cost for administering the survey. Gary said that his cost estimate provided earlier to EMTC was about $65,000 for a contractor to conduct the work, plus about $15,000 for contract administration, analysis/interpretation of results, and report preparation. Walter Redmon asked about the geographic bounds of the survey. Gary said that the survey has a stratified with river corridor counties, and outstate areas within the 5 UMRS states as strata. Bill Bertrand asked if funding is expected from EMP partner agencies to administer the survey. Bob Delaney said that there is nothing firm, and that we can't expect funding from the Corps Navigation Study due to the recent budget cuts. Bob asked if the EPA might be interested in supporting the public survey. Walter Redmon replied that the EPA is interested, but EPA funding is very uncertain during this time of continuing appropriations bills. Bob suggested that EMTC prepare a proposal to EPA. Pam Theil suggested a proposal to the McKnight Foundation.

Ken Lubinski noted that the public survey is an LTRMP Goal 3 work item, but that cost-sharing for the survey with EMP partner agencies would be appropriate.

Adaptive Environmental Assessment (AEA)

Ken Lubinski distributed a series of diagrams on AEA and planning for natural resources management. Ken reported that one AEA workshop was held, and funding for a second workshop was promised by the Minnesota DNR. The AEA workshop participants are waiting for UMRS ecosystem simulation models that are being developed at the basin and river pool scales. The EMTC has prepared a proposal to NBS for a state partnership program for further AEA activities.

UMRS Environmental Summit

Ken said that he attended the first Summit meeting held in Bloomington, Minnesota on February 1 and 2, 1996. Invited participants included higher-level representatives of agencies and non-governmental organizations with interest in management of the UMRS. The participants crafted and signed a statement of understanding ("Vision Statement"), "To seek long term compatibility of the economic use and ecological integrity of the Upper Mississippi River." The Isaac Walton League declined to sign the agreement, citing vagueness and a lack of firm commitments. Ken said that many people at the Summit had a propensity toward immediate actions, rather than planning for integrated environmental management. In this regard, Ken was reminded of the beginnings of the EMP-HREP program, which is now being criticized for the process employed for selecting projects.

Water Level Management Task Force

Ken recounted that the group had its origins in the ad hoc group planning ecosystem management for Pool 8. The Water Level Management Task Force is now an interagency committee which reports to the River Resources Forum. A series of alternative strategies for modifying the present system of river regulation in the St. Paul District reach of the UMR are being explored, including whole pool and smaller-scale drawdowns. EMTC participation has been consultative. Ken emphasized the importance of water level management in natural resources management on the UMRS. Dan Wilcox said that the Water Level Management Task Force has already modified winter river regulation on St. Paul District navigation Pools 2 through 10, by eliminating the historically-practiced winter drawdown of 0.25 feet (Pool 10 formerly had a winter drawdown of up to 1.0 ft). Eliminating the winter drawdowns will provide somewhat greater water volume in backwater areas during winter. Benefits may include reducing the frequency and extent of winter dissolved oxygen depletion, and reduced disturbance to furbearers. Joe Jordan asked if the effects of eliminating the winter drawdowns will be monitored. Dan said that the Water Level Management Task Force agreed that the effects would be difficult to measure, and the effects of hydrologic modifications on overwintering fish in backwaters are being studied in the Finger Lakes HREP Biological Response Study. Dave Soballe said that the EMTC and the Wisconsin LTRMP field station are intensively monitoring under-ice water quality conditions in Pool 8 this winter. Doug Blodgett said that the Illinois LTRMP field station is looking into moderating water level fluctuations on the Illinois River through modifications to the present system of river regulation. John Wetzel asked about modeling winter aquatic habitat conditions. Steve Gutreuter reported that the EMTC is developing predictive capabilities. Gordon Farabee noted that there has been no funding for monitoring the ecological effects of the modifications to river regulation in Pool 25. Gordon said that Missouri DOC would like to determine effects on fish and macroinvertebrates. Ken Lubinski said that the EMTC has scheduled aerial photography of Pool 25 during this next summer to document the extent of the dewatered areas. Don Williams remarked that there is a need for a more coordinated approach to LTRMP research into effects of river regulation. Ken said that the EMTC has been responding to the desires of the EMP partner agencies.

Status and Trends Report

Ken said that report completion has been delayed by an extra review step. The report draft should be delivered to the publishing contractor in April. John Wetzel asked if there is a firm date for report distribution. Bob Delaney estimated that the contractor will require about a month for design and layout, then about six weeks for printing. Steve Gutreuter reminded Team members of the target audience for the report. Ken said that the report has been designed to reach an "educated public" with technically correct but simple presentations and graphics. Ken Barr asked if the proposed over-target cost is printing cost, and if that cost could be deferred. Bob Delaney said that the report is overdue already. John Wetzel suggested that Team members determine if their respective agencies can pay for printing of additional copies.

LTRMP Partner Expectations

Ken Lubinski reported for Barry Drazkowski who was unable to attend. The process began in January 1993 by polling EMP participating agencies. A lengthy list of expectations emerged. Ken thought that the list needs to be better organized by types of information that partner agencies expect of the LTRMP. This year, the partner expectations will be compared to ongoing LTRMP activities and products. Bob Delaney announced that the Corps has already provided a list of expectations for LTRMP products and that he would welcome continued input.

Goal 3 Activities

Don Williams said that actual Goal 3 activities are not consistent with the Operating Plan. Some Operating Plan items are past due, some items are included in the FY96 Annual Work Plan Goal 3 that are research rather than planning support activities, and some are overly ambitious. Don asked if there is a need to revise the Goal 3 portion of the Operating Plan, or to better follow the plan that exists. Ken Lubinksi explained the general approach to Goal 3 activities with diagrams illustrating planning for natural resources management. Ken said that expenditures on Goal 3 activities have been increasing, as was anticipated earlier in the program. Bob Delaney recounted the UMRS Master Plan and the 1986 WRDA mandate for the LTRMP to attend to monitoring. Bob said that there is no mandate for the LTRMP to undertake planning support activities, but thought that it is probably the most important thing that the LTRMP can do.

Dan Wilcox recalled that during development of the LTRMP Operating Plan, the need was recognized to synthesize LTRMP inventory, monitoring, and research data into information useful for natural resources management. Dan said that the Goal 3 portion of the Operating Plan was designed following the logical and stepwise process employed in planning. Because the LTRMP is not a natural resources management agency, the LTRMP Goal 3 activities were designed to generate some basic building blocks to use in planning for natural resources management by partner agencies, with an emphasis on forecasting future conditions, development of alternative objectives for future conditions, and formulation and evaluation of management alternatives. Dan explained that many of the Goal 3 activities are indeed ambitious (forecasting the future condition of the UMRS without change in the present system of management, for example). Dan noted that there is a great need for real partnership with

other agencies in accomplishing Goal 3 activities. Dan suggested that rather than re-writing Goal 3 of the Operating Plan, it would help to place a greater program emphasis on executing it.

John Wetzel concurred that LTRMP Goal 3 products are needed for management of the UMRS. Steve Gutreuter observed that there are few dates in the Goal 3 portion of the Operating Plan because many Goal 3 activities are predicated on development of other previously-generated LTRMP information. He thought that we are not really behind in Goal 3 work because the base information is only now being generated.

Walter Redmon commented that the EPA needs to become more involved in partnership with the LTRMP, and commended EMTC staff and the Analysis Team on focusing on planning for management of UMRS. Walter compared research, monitoring, and planning for natural resources management on the UMRS with work on the Great Lakes, declaring UMRS activities more focused on attaining a sustainable future condition. Steve Gutreuter noted that effort and funding for Great Lakes research is orders of magnitude greater than on the UMRS. Bob Delaney said that the USGS has an ecosystem-based program for research and monitoring. Bob thought that now with the NBS/USGS merger, there is potential for leveraging funding for LTRMP activities with the USGS.

The Analysis Team adjourned at 5:30 p.m.

The Analysis Team reconvened at 7:30 p.m. to discuss relative priority of the EMTC-proposed over-target funding items. A wide-ranging discussion ensued that resulted in Analysis Team majority of agreement on priority of over-target items.

Tim Schlagenhaft expressed concern about the prioritization process employed by EMTC. Gordon Farabee said that he understood the explanations for the EMTC-proposed list, but that he didn't like the prioritization process. Don Williams reviewed criteria that could be used to select over-target items, and recommended that the Pool 8 hydrodynamic modeling be funded. Bill Bertrand said that the public survey results will be important for the EMP report to Congress. He opposed providing overtarget money for the fish passage study. Don Williams said he also opposed it. Bob Delaney was hopeful that NBS will receive an additional $7,000,000 in this fiscal year, and that some funds may be made available to the EMTC, on a competitive basis, to the EMTC to fund over-target work.

M/S Fish passage

John Wetzel summarized the Analysis Team recommendation on funding the FY96 over-target items, should funding become available (not in any order of priority): No.1 (large rivers conference report), No.3 (status and trends report), No.4 (public survey), No.6 (Pool 8 hydrodynamic modeling), No.7 (floodplain elevation mapping), No.10 (evaluation of river management measures), and No. 13 (predict sediment delivery to main stem UMRS rivers). John further summarized Team recommendations; for the EMTC to seek funding partners for administering the public survey, and to keep the Analysis Team informed on over-target work. John said that as chairman of the Analysis Team next year, he will ensure that the process for coordinating any overtarget items will be improved.

The Analysis Team adjourned at 10:30.

The Team reconvened at 8:00 a.m. on Wednesday, February 14.

Agency Reports

EPA - Walter Redmon reported that Congress has not authorized an EPA budget yet this fiscal year, and the agency is operating on limited funding authorized by the continuing resolutions. The agency is undergoing reorganization. An Upper Mississippi River Team has been formed. Bill Franz, Region III - Chicago, is the team leader. A similar Gateway Team has been formed to address land issues in the St. Louis area. The EPA has initiated a program lead by Jim Giattina of the EPA Gulf office to deal with the Gulf of Mexico hypoxia problem. Dan Wilcox asked if EPA and the USGS plan to determine the sources and mass transport of nitrogen down the Mississippi River that has been identified as the probable cause of the hypoxia problem. Walter said that the EPA is very interested in quantifying this phenomena, and would welcome a proposal from the USGS/NBS. Walter cautioned that the EPA UMR Team has only limited experience in working with the river, has no travel funding, and that the program is only merging. Ken Barr asked if EPA Region VII (Kansas City) is working with the EPA UMR Team. Walter said that the intent is for EPA staff from both regional offices to be involved, but not much has happened yet.

NRCS - Bill Hartman announced that he will become an active member of the LTRMP Analysis Team. The NRCS is still going through its reorganization, but most changes at the field and regional office levels have been implemented. The national office has been reduced, four technical centers have been eliminated, overall staff has been reduced by 8 percent, and staff has been focused to regional offices. The midwest regional office is located in Madison, Wisconsin. Field offices at the county level have had a minor increase in staff strength. Bill distributed a brochure describing the midwest regional office functions and contacts. The NRCS is examining program changes toward a more holistic, watershed-based approach. Its primary role will remain providing technical assistance to landowners. The wetland reserve program will continue with restoration of wetlands and riparian areas. The NRCS can assist with planning for UMRS management, through dissemination of information to the local level.

Bill Hartman described key issues contained in the House and Senate versions of the upcoming 1996 Farm Bill. EQIP is a farm environmental quality incentive program. Farm Services Administration (formerly the ASCS) programs will be combined (Agricultural Conservation Program, Great Plains Program, Colorado River Program, Water Quality Incentive Program). Funding for cost-sharing assistance for conservation measures to land-owners will come from the Commodity Credit Corporation, providing increased stability in availability of funding. The Conservation Reserve Program will be reinstated with a 36.5-million acre limit. Water bank program areas will be eligible for CRP. A $10,000,000 floodwater retention pilot program will be initiated, with acquisition of floodplain easements. The PL566 small watershed program has been changed, with new criteria to address prior loss of habitat and environmental quality. A grazing lands conservation initiative will address water quality and erosion on range and pasture lands. The wetlands reserve program will include both 15-year and 30-year easements. The NRCS is going through a strategic planning process with the eight states in the midwest region. Norm Hildrum asked about potential for partnerships in floodplain restoration. Bill Hartman responded positively, noting that the PL566 program requires participation of cost-share partners. Bill said that they need to prioritize interest and funding ability of local partnerships. Norm asked about the EQIP

program. Bill said that farmers can apply for technical and financial assistance to reduce soil erosion and to improve water quality. EQIP does not include monitoring. The primary purpose is to apply conservation practices to private land. Dan Wilcox asked if EQIP will reduce the backlog of requests for conservation assistance. Bill said that funding for cost-share conservation efforts on private lands has increased slightly in the last few years. Ken Lubinski asked if effects on the UMR mainstem will be considered in focusing NRCS efforts. Bill said that off-site benefits will become increasingly important criteria in NRCS conservation programs. Dan Wilcox suggested that information on mass transport of sediment, N, and P from UMRS tributary basins to the UMR mainstem could be important in planning land and water conservation activities in the UMRS basin. Bill Hartman and Walter Redmon both agreed that this information would be of great value.

USGS - Rob Brown said that he was reporting for Steve Blanchard, the District chief from Iowa, who couldn't attend. Rob said that the USGS is now on the world-wide-web . About 60 percent of USGS work involves water resources. The USGS organizational structure includes a mapping division, a geology division, a water resources division, and now the new NBS division. District offices are located in nearly every state. Each District office includes a hydrologic data section, a hydrologic studies section, a computer applications section, and an administrative services section. About 75 percent of funding for USGS water resources comes from "customers." Programs exist for cost-sharing establishment and operation of streamflow gaging and water quality monitoring stations. In addition to the network of river gages, the USGS monitors flood profiles, groundwater sites, crest-event sites, and surface water quality sites. The hydrologic studies sections research hydraulics, fluvial geomorphology, hydrogeology, geochemistry, physical geology, and hydrometeorology. NAWQA, the national water quality assessment, includes the Cedar/Iowa River, the Upper Mississippi in the Twin Cities, Minnesota reach, and the Illinois River projects.

LTRMP Science and Management Review

John Wetzel asked Team members to send him recommendations on objectives for the LTRMP science and management reviews. John will compile the recommendations and provide them to the EMTC. Doug Blodgett asked that instructions to the science and management review committees be distributed for Analysis Team review prior to sending them to the science and management review committee members. Bob Delaney agreed to distribute the instructions to the Analysis Team.

LTRMP Reports

Steve Gutreuter distributed review copies of the 5-year trend reports. Steve said that the annual trend reports for 1995 (data summaries) will be out in about three weeks. Steve announced with relief that they are essentially caught up with monitoring report production. Steve asked that comments on the 5-year trend reports be provided to Terry D'Erchia at EMTC by March 15. Norm Hildrum said that the trend reports will have a high priority for publication. Steve noted that while the 5-year trend reports should be of value to river management agencies, detailed data summaries are in the annual reports. Steve asked that Team members compile comments on the 5-year trend reports by their respective agencies before sending them to EMTC.

Review of LTRMP Monitoring Designs

Steve said that the 5-year trend reports will serve as a basis for refinement of the monitoring designs. 1993 was the start of stratified-random sampling for water quality, fish, and changes to the invertebrates and vegetation monitoring. The goal was to stabilize procedures in 1993, and Steve did not see any reason to change procedures now that would result in a change in interpretation of monitoring data. Another change adopted in 1993 was to produce annual data reports, thereby freeing up component specialists for other activities. The science review committee will provide recommendations on refinements to the LTRMP monitoring designs. Steve said that they now need to do some focused investigations for refinement of monitoring designs. He expects to do these studies collaboratively with the field stations. Jim Rogala is completing a report on sediment type characterization in Pool 8. Sediment type sampling will be conducted at the other field stations this year, with sediment penetrometer measurements taken at water quality sampling sites. Results from Pool 8 indicate that the impounded areas remain zones of sediment transport.

Norm Hildrum asked if there will be integration of the different monitoring component findings. Steve said that EMTC will do some synthesis analyses. Ken Lubinski said that there is no formal schedule for multicomponent synthesis. Dave Soballe said that the backwater limnology work beginning this year will relate water quality, sediment, and vegetation.

Dan Wilcox asked if the spatial extent and sampling intervals for the monitoring programs could be modified to increase effectiveness and efficiency. Steve said that we need to maintain sufficient resolution to detect changes, and to decide on trade-offs if we wish to increase the spatial extent of monitoring or modify sampling intervals. Steve suggested that the LTRMP should make greater use of data collected by other agencies. Steve asked if the UMRS states could sample using standardized protocols, and posed the question, "Where do you want to be following EMP in ability to interpret UMRS monitoring data?" Steve said that LTRMP sampling intensity needs to be further evaluated.

John Wetzel recognized the need to expand the spatial extent of monitoring, citing the inter-pool variation in abundance of macroinvertebrates. Tim Schlagenhaft noted that the pace of refining LTRMP monitoring designs should pick up now that some states are beginning to employ LTRMP procedures and to collect compatible data. Doug Blodgett reminded Team members of logistical constraints on field stations for expanding the spatial extent of sampling. Dave Soballe noted that LTRMP field stations have already expanded the spatial extend of water quality sampling.

Pam Theil asked about progress toward monitoring the main channel fish community. Steve Gutreuter said that the Corps Navigation Study has funded acquisition of a large trawling boat and gear for main channel work. Navigation Study funding was cut considerably this year, and a scaled-down sampling effort will proceed this year. The focus will be on fish density in the main channel. The work will take place in Pool 26. Trawl tows will be made following towboats to sample for killed and injured fish. Exploratory work should reveal things about the main channel habitat.

UMRCC Fish and Wildlife Technical Sections Report

Tim Schlagenhaft reported that the Fish Technical Section members have noted an increase in abundance of channel catfish, in contrast to LTRMP findings. A letter was sent to Steve Gutreuter on this subject, and Steve's reply allayed concerns. The Fish Technical Section recommended LTRMP monitoring of main channel fishes, accelerate acquisition of bathymetry and substrate type surveys, distribute the draft LTRMP Annual Work Plan for wider review, and to produce information bulletins on LTRMP findings, that would serve as overviews on UMRS conditions for the general public. Tim asked when bathymetric surveys will be done on non-LTRMP monitoring pools. Ken Barr said that Navigation, Study funding has bought and equipped a new bathymetric survey boat and paid for a crew to complete survey work in the trend pools, collect sediment data, and to begin to perform bathymetric surveys in other pools. Bob Delaney said that Barry Drazkowski will prepare a letter to the UMRCC explaining the bathymetric survey program.

Steve Gutreuter suggested that the EMTC produce research information summaries, to disseminate concise information about ongoing work. Dan Wilcox noted that each state natural resource management agency has staff dedicated to public information and education, and encouraged the states to disseminate LTRMP-generated information. Bob Delaney said that the EMTC will produce some information bulletins intended for the general public starting in March. Steve Gutreuter said that well-written executive summaries of EMTC reports could also be distributed for public consumption.

John Wetzel asked if there will be a response by EMTC to a letter sent by the UMRCC Wildlife Technical Section. Bob Delaney said that a copy of the letter should also be provided to the NBS Midwest Science Center. Barry Drazkowski and Carl Korschgen will prepare a response and present it to the UMRCC.

Review of LTRMP Research Scopes of Work

Steve Gutreuter asked that Analysis Team members review and provide compiled comments from their respective agencies on scopes of work for LTRMP research. Bob Delaney said that 5 copies of each scope of work will be provided to each Team member to assist in obtaining agency reviews.

Agency Reports (continued)

Wisconsin DNR - John Wetzel said that DNR reorganization is under way, but he doesn't expect much change to the La Crosse Mississippi River unit.

Minnesota DNR - Tim Schlagenhaft announced that long-time fisheries biologist Gary Gruenwald retired. Gary will continue to live in Lake City, Minnesota.

Missouri DOC - Gordon Farabee reported that the Missouri DOC has recently acquired an entire levee district along the Missouri River, over 3,000 acres. The DOC is working with the NRCS to acquire floodplain lands and to restore ecological structure and function. The Big Muddy Wildlife Refuge is expanding in area due to recent acquisitions. Missouri DOC will host the upcoming UMRCC annual meeting in Cape Girardeau. The DOC is finally automated

with email. The Missouri Stream Team work with public monitoring of rivers is proceeding well. The DOC is now issuing Heritage Cards which can be used for game and fish licensing at many locations throughout the state.

Illinois DNR - Bill Bertrand said that Dan Sallee will give a presentation to the UMRCC about the Andalusia HREP project.

USFWS - Pam Theil said that the FWS is still operating under a continuing resolution. Funding for the region is down about 50 percent. The newly reorganized midwest region included three geographic areas, each with its own coordinator: The Great Lakes, the Mississippi River, and the Tallgrass Prairie. The FWS is trying to further organize along ecosystem lines. Hannibal Bolton is now in Washington, serving as chief of fisheries assistance. Dale Burkett is the new fisheries assistance chief in this region. Paddlefish telemetry work will continue this spring.

Corps of Engineers - Don Williams reported that the appropriations bill passed last October that funded the Corps of Engineers contained language directing the Corps to reduce the number of Division offices. An announcement was made last week that the North Central Division office in Chicago will close beginning August 1996. St. Paul, Rock Island, St. Louis, Kansas City, and Omaha District offices will be within a new Upper Mississippi/Missouri River Division, with the Division office in Omaha. HREP projects approved for planning and design are a small-scale drawdown, bank stabilization, and Pool 8 East Channel.

Jerry Skalak said that he will brief the Analysis Team at the next meeting on results of workshops being organized for the EMP report to Congress. Information about HREP projects and the Navigation Study has been added to the Rock Island District internet home page. Joe Jordan (biologist) and Kevin Patrick (forester) are leaving the Rock Island District.

Illinois Natural History Survey - Doug Blodgett reported that the Illinois LTRMP field station will continue to sample zebra mussel veligers. ~~They~~ have developed a zebra mussel population model. The exotic zooplankter, Daphnia lemholzii, has been found in the Illinois River.

Graduate student U of Ill WAS

Other Business

Ken Lubinski reminded Team members that review of the public survey design is important, and asked that Team members compile comments from their respective agencies and forward them to the EMTC. Dan Wilcox said that State and Fish and Wildlife Service social scientists and public use specialists had considerable input to the design of the public survey. Steve Gutreuter remarked that the design of the public survey looks solid.

Next Meeting

The next Analysis Team meeting will be June 18-19, 1996. A conference call between the EMTC and Team members to set the agenda for the next meeting will be at 9:00 a.m. on May 14, 1996.

Chairman John Wetzel adjourned the Analysis Team meeting at 12:30.

Respectfully submitted,

Dan Wilcox

Attendance List
LTRMP Analysis Team Meeting
February 13-14, 1996
Holiday Inn, Davenport Iowa

Attendance List

Name	Agency, Location	Telephone Number
Bill Bertrand	Illinois DOC	309-582-5611
Doug Blodgett	Illinois NHS Havana	309-543-6000
Fred Cronin	Illinois NHS Pool 26	618-466-9690
Russ Gent	Iowa DNR Pool 13	319-872-5495
Tom Boland	Iowa DNR Bellevue	319-872-4976
Tim Schlagenhaft	Minnesota DNR Lake City	612-345-3365
Terry Dukerschein	Wisconsin DNR Pool 8	608-783-6169
John Wetzel	Wisconsin DNR LaCrosse	608-785-9994
Gordon Farabee	Missouri DOC	314-751-4115
Scott Estergard	USFWS Rock Island	309-793-1629
Jon Duyvejonck	USFWS Rock Island	309-793-5800
Pam Theil	USFWS LaCrosse	608-783-8431
David Soballe	NBS EMTC	608-783-7550
Robert Delaney	NBS EMTC	608-783-7550
Steve Gutreuter	NBS EMTC	608-783-7550
Ken Lubinski	NBS EMTC	608-783-7550
Norm Hildrum	NBS EMTC	608-783-7550
Ken Barr	USCOE Rock Island	309-794-5349
Jerry Skalak	USCOE Rock Island	309-794-5605
Joe Jordan	USCOE Rock Island	309-794-5697
Dan Wilcox	USCOE St. Paul	612-290-5276
Gary Nelson	USCOE St. Paul	612-290-5251
Bill Hartman	USDA-NRCS Madison	608-224-3004
Steve Blanchard	USGS Illinois	217-344-0037
Walter Redmon	USEPA Chicago	312-886-6096
Dan McGuiness	MN/WI BAC	715-386-9444

EMP Coordinating Committee
Conference Call
March 25, 1996

DRAFT

A. Participants

Larry Hiipakka	NCD
Tom Hempfling	NCD
Joan Albert	NCD
Don Williams	NCD
Buddy Arnold	LMVD
Deb Foley	St. Paul District
Jerry Skalak	Rock Island District
Jane Collins	St. Louis District
Ben Hawickhorst	St. Louis District
Dave Gates	St. Louis District
Mamie Parker	Fish and Wildlife Service
Bob Delaney	NBS (EMTC)
Marv Hubbell	Illinois DNR
Kevin Szcodronski	Iowa DNR
Steve Johnson	Minnesota DNR
Norm Stucky	Missouri DOC
Terry Moe	Wisconsin DNR
Barb Naramore	UMRBA Staff
Holly Stoerker	UMRBA Staff

B. Background

Congress can change this

The President's FY 1997 budget proposal, which was released March 19, 1996, includes $15.694 million for the EMP. This represents a cut of $3.761 million (approximately 20 percent) from the authorized level of $19.455. Out-year budget amounts are subject to change, but are currently projected to be:

FY 97	$15.694 million
FY 98	12.430 million
FY 99	8.727 million
FY 00	9.800 million
FY 01	19.080 million
FY 02	19.455 million

C. Purpose of Conference Call

To discuss the process for identifying program priorities and allocating available funds given the potential budgetary reductions.

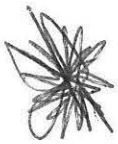
D. Highlights of Discussion

Short-term schedule

- April 5: Corps Divisions and Districts meet to discuss how HREP and LTRMP programming can be adjusted to accommodate budget cuts.
- April 5 - May 3: Corps Districts consult with EMP partners on HREP priorities.
- April 23 - 24: A-Team meeting to discuss impacts of budget cuts on LTRMP and how adjustments can be made.
- May 3: Corps completes development of "strawman" spreadsheet reflecting potential allocation of reduced FY 97 funding.
- May 23: EMP-CC meeting to discuss strawman spreadsheet and program priorities.

General Strategy

- Cutting both HREP and LTRM funding in the same proportion as the overall EMP budget reduction will be evaluated as a baseline scenario.
- Separable elements and increments will be identified as input into decisions about what can be cut or postponed.
- Constraints associated with out-year budget reductions will be integral to the decisions regarding what to fund in FY 1997.



Long Term Resource Monitoring

- In addition to consideration of a proportional cut, scenarios of deeper cuts and a no cut alternative should be explored.
- In light of the fact that disruptions in on-going basic data collection will result in irretrievable losses, distinctions should be made between those efforts and research or data analysis.
- New management strategies to off-set budget cuts will be explored. Examples include shared field station management, reductions in overhead charges, and direct NBS funding of information management activities (CIA).

Habitat Projects

- Consideration will be given to proportional cuts for each District as a first step; the second step will be to evaluate shifting increments of funds based on trade-off analysis.
- Information regarding project-by-project funding and scheduling options departing from the baseline should be consolidated rather than displayed separately by individual districts to enable systemwide comparisons and choices.
- New starts will not automatically be excluded from consideration.
- Cost-saving strategies other than simply stretching out the queue of projects will likely be required.

- Consideration should be given to identifying the best mix of projects with no assumptions or preconditions regarding district allocations, new starts, or the existing queue of projects.

Program Management

- Cuts in Program Management will be evaluated and considered.

- The Report to Congress should remain a top priority. However, we should be particularly cost-conscious and realize that LTRM reductions may affect the ability to provide input to the report.

Additional Information Requested

- Larry Hiipakka will provide information on overall Corps budget reductions and division-wide budget targets for NCD and other Corps divisions.

COE provided Targets

UMRS-EMP
FY97 - FY02 "Scenario" Summary

8 Apr 96

(x $1,000)

		FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	Cum Total
Tentative Allocation	/1	15,694	12,430	8,727	9,800	19,080	19,455	85,186
PROPORTIONAL	/2							
LTRM		4,794	3,846	2,735	3,057	5,841	5,955	26,228
HREP & Prog Mgmt		10,900	8,584	5,992	6,743	13,239	13,500	58,958
HIGH LTRM	/3							
		5,500	5,000	4,500	4,500			
LTRM		5,000	4,500	4,000	4,000	5,841	5,955	29,296
HREP & Prog Mgmt		10,694	7,930	4,727	5,800	13,239	13,500	55,890
"RAMP-DOWN" LTRM	/3							
LTRM		4,794	4,200	3,500	2,700	2,000	1,200	18,394
HREP & Prog Mgmt		10,900	8,230	5,227	7,100	17,080	18,255	66,792

/1 Out-year allocations are budgetary estimates only and subjet to change.
/2 Source 3/25/96 version of proportional spreadsheet.
/3 Hypothetical scenarios.

PRELIMINARY DRAFT: FOR OFFICIAL USE ONLY

Alternative Approaches
LTRMP Fiscal Year 1997 Proposed Budget Reductions
Proportional Cuts

Background:

EMP Funding FY 1992-1996:		$19.455 million per year
President's FY 1997 EMP Budget:		$15.694 million
Congressional Action and Final Budget:		*Unknown*
Proportional Funding:	LTRMP	$ 4.794 million
(LTRMP 1/3; HREP 2/3)	HREP	$10.900 million

Corps of Engineers indicates that Savings and Slippage (10%) will be applied to LTRMP in FY 1997

LTRMP Target Reduction $1.64 million
($5.955 - $4.794 million = $1.16 + $0.48 S&S)

Page

Fixed Actions:

Potential Actions:

Because no Action alone achieves the $1.64 million reduction, a combination of Actions would be necessary to develop alternatives to meet the target.

The budget information contained in this document is preliminary in nature and will be subject to change based upon the results of additional analysis by EMTC staff, the LTRMP Analysis Team, EMP-CC, Management Review Committee, Science Review Committee, and Congressional actions. Actual savings may be less than stated due to fixed costs which may not be reduced and personnel who perform work across multiple Goals. Savings from Fixed Actions I and II are included in all subsequent Actions. Savings noted in Actions III through VII were independently determined and stand alone; therefore, any combination of Actions III through VII may result in reduced savings.

CAPAbility to Print will be Pd by

PRELIMINARY DRAFT: FOR OFFICIAL USE ONLY

Results in a 20% Reduction in H/S for the LTRMP 8.0

Budget Reduction Actions

Action I. Reduce Operational Expenses

Description: Reduce operational costs supporting Goals 1-4.

Total Savings: $361.5K (EMTC $217.5K; Field Stations $144.0K)

Justification and Impacts: Savings would result from the following actions: (1) All EMTC staff training and travel except for mandatory training and critical meeting attendance would be eliminated ($35.0K). (2) Equipment replacement would be stopped, with repairs only provided ($25.0K). (3) Hardware and software purchases would be delayed or stopped ($2.0K). (4) Report printing would be reduced ($10.0K). (5) Aerial photography collection would be reduced ($26.0K). (6) Software and hardware maintenance would be greatly reduced ($35.0K). (7) Acquisition of supplies would be greatly reduced ($25.0K). (8) Support services would be reduced ($25.0K). (9) Overhead savings from the above reductions ($34.5K). (10) Field Stations: Alton ($12.8K), Havana ($21.0K), Onalaska ($16.6K), Lake City ($21.1K), Open River ($50.7K), Bellevue ($15.0K). (11) Field Station overhead savings ($6.8K).

TEMP POSITION?

Few apparent short-term impacts would be felt in the Program because some of the losses can most immediately be categorized as intangible. For instance, impacts from loss of training (except mandatory training) would only be manifested in out-years as lower productivity, high staff turnover, and reduced morale. In the long term, however, because the Program is involved in rapidly evolving and changing technology, Program productivity would deteriorate and suffer.

This action would severely reduce the number of aerial photographs collected annually as part of Task 2.2.4.5 and would restrict LTRMP aerial photography coverage to a limited area within portions of a few study pools. This gap in aerial photography would be a permanent, irretrievable loss, and Program objectives must be restructured accordingly.

Because the LTRMP is not cost-indexed and additional future reductions are given even with full funding, these reductions would simply amplify the severity of out-year impacts.

Reductions in automation support activities would result in a prioritization of work efforts and some delays in hardware/software replacements and upgrades.

Reducing MAINtenance of H/S Reduce supplies -
Min H/S Replacements -
Some/Significant Loss of FTE

How does the cut the Affect the PARtner?

1361.5
297.1
658.6

22

Action II. Discontinue Certain Scheduled Activities

Description: Discontinue certain scheduled activities and eliminate vacant positions.

Total Savings: $297.1K

Justification and Impacts: Savings would result from the following actions: (1) Do not fill vacant remote sensing position ($57.9K). (2) Cancel plans to hire co-op student to assist Administrative staff in updating all property records ($6.1K). (3) Reduce Corps support from the Waterways Experiment Station ($75.0K). (4) Cancel further sediment data collection within the USGS cost-share program ($75.0K). (5) Cancel plans to hire co-op students to complete post-flood forest data collection ($24.0K). (6) Overhead assessment savings from the above reductions ($22.8K). (7) Reduce Information and Technology Services support ($28.6). (8) Reduce Partnership Coordination support ($2.7K). (9) Reduce Geospatial Applications support ($5.0K).

This action would cancel Task 2.3.1.2E, "Systemic changes in land-water boundaries: 1970s, 1980s, 1990s." The information gathered under this Task would have provided essential data required for integration of systemic land cover/use change analysis. This effort was a continuation of a pilot effort conducted the previous fiscal year.

The discontinued activities under this Action would result in continued incomplete LTRMP property records, no further sediment data collection to quantify sediment budgets in priority pools and reaches, no systemic analysis or reporting for available Landsat data, no additional data to quantify 1993 flood impacts on the structure of UMRS forests, and elimination of close coordination of the LTRMP with the Waterways Experiment Station.

inventory

3.2

15.0

Cut ITS in staff input support to DATA

Cannot continue these actions indefinitely

Program capability to analyze RS DATA will be eliminated — Impacts systemic analysis

NAN Study HREP Project Feature Condition

Action III. Apply Savings and Slippage to All Program Elements

Description: The Corps of Engineers has indicated that Savings and Slippage will be applied to the LTRMP/CIA in FY 1997. This cost would be applied equally to Program elements at the EMTC and Field Stations.

Total Savings: $480.0K

Justification and Impacts: All Program elements at the EMTC and Field Stations would be reduced by 10% to reflect Savings and Slippage assessments.

ITS — 1 or 2 FTE Loss depends How we address H/S Mgmt Repro Production

Impacts —

Impacts —

Impacts —

Modeling —

impacts

New Problems —

DATA Collection —

EPA Support ?

Action IV. Emphasize Monitoring and CIA

Description: Eliminate Goals 1 and 3 and reduce Goal 4

Total Savings: $902.1K (Subaction 1 = $472.2K, Subaction 2 = $258.4K, Subaction 3 = $171.5K)

Subaction 1: Eliminate Goal 1, "Develop a Better Understanding of the Ecology of the Upper Mississippi River System and its Resource Problems."

Description: Eliminate all LTRMP financial support for Goal 1 activities.

Net Savings: $472.2K

Justification and Impacts: Goal 1 activities were not explicitly mentioned in the Comprehensive Master Plan or in the Water Resources Development Act of 1986, although the Master Plan states: ". . .included in that program [LTRMP] are specific actions to further our understanding of the physical, chemical, and biological relationships in the system." This implicit recognition of the importance of understanding the system was the justification from which the LTRMP Partners defined Goal 1 when implementing the LTRMP. The existing coupling of monitoring and research, as defined by Goals 1 and 2 of the LTRMP, is unique among resource monitoring programs and was strongly recommended by the first LTRMP Science Review. In fact, the complete set of Goals 1, 2, and 3 constitutes much of adaptive resource management.

Elimination of Goal 1 is elimination of all LTRMP work that helps resource managers identify causes of trends observed in the monitoring data. Without identification of causes of problems, managers risk wasting resources by treating mere symptoms. The loss of tight integration between monitoring and research would reduce the efficiency with which policymakers can learn to better manage the Upper Mississippi River System. For example, this action would eliminate ongoing LTRMP work to develop and test models to quantify the availability and distribution of critical overwintering habitat for ecologically and economically important fishes such as the centrarchids. Further, it would halt LTRMP work to assess innovative habitat restoration ideas such as seed islands. Loss of these efforts would eliminate development of information critical to future habitat management efforts.

This action also results in significant reductions in critical research which was to be used in describing the impacts of commercial navigation on the ecology of the Upper Mississippi River System and which complements both the monitoring program and habitat restoration efforts.

If this action were implemented, Geospatial Applications staff would not develop a visualization application to assess pool-wide habitat changes.

Information and Technology Services automation support staff would be reduced by about 15% (1 of 7 staff members). All automation support efforts relating to Goal 1 activities would be eliminated. Automation support to remaining activities would be decreased or delayed because of the loss of staff.

Elimination of Goal 1 would also have substantial impacts on Goal 2. Currently, EMTC staff charged primarily with management and scientific analysis in Goal 2 are also involved in Goal 1 activities; this tight integration has traditionally been seen as a major asset of the LTRMP. Elimination of Goal 1 risks loss of

EWS Summit: Relationship to Flow Impacts

25

Action IV. (cont'd)

EMTC staff members who are critical to the success of Goal 2. Elimination of Goal 1 would require careful but complete reengineering of staff at the EMTC to ensure continuation of Goal 2; in fact, all of the savings identified above may not be achieved if Goal 2 is to be protected.

Subaction 2: Eliminate Goal 3, "Develop Alternatives to Better Manage the Upper Mississippi River."

Description: Eliminate all LTRMP financial support for Goal 3 activities.

Net Savings: $258.4K

Justification and Impacts: The justification for taking this action is to reduce all other parts of the LTRMP before disrupting the integrity of the monitoring design and results. However, this action would result in the elimination of critical data which may be used in formulating implementable resource management actions within the Upper Mississippi River System.

During the formation of the LTRMP, Program planners envisioned being able to begin applying monitoring and research results to specific management actions (especially habitat project goal-setting, design, and site selection) midway through the Program. We are now at that point. Elimination of Goal 3 would suspend active participation of LTRMP staff in joint management planning efforts utilizing monitoring data. Our ability to advise and educate management agencies with the monitoring data would also be virtually eliminated.

Specific projects that would be terminated include (1) A survey of public expectations. (2) Technical assistance for pool-scale and systemic ecosystem management plans. (3) Ongoing assistance to river foresters related to management strategies. (4) Coordination with The Management Strategy for Migratory Birds, including development of GIS applications and tools. This action would eliminate the already very limited effort of the LTRMP to implement a wildlife component. (5) Future assistance to predict hydrological and ecological impacts associated with changes to water regulation policies and methods. (6) HREP planning, siting, and design.

Information and Technology Services automation support staff would be reduced by about 15% (1 of 7 staff members). All automation support efforts relating to Goal 3 activities would be eliminated. Automation support to remaining activities would be decreased or delayed because of the loss of staff.

Subaction 3: Reduce Goal 4, "Provide for the Proper Management of Long Term Resource Monitoring Program Information."

Description: Reduce automation support, report production, and GIS product support.

Net Savings: $171.5K (A = $21.4K; B = $112.4K; C = $37.7K)

Action IV. (cont'd)

A. Reduce Automation Support Activities.

Description: Some generalized automation support activities would be reduced or curtailed. Emphasis would be placed on supporting database management activities associated with monitoring and spatial data. Automation support would be provided to the management, analysis, and safeguarding of component and spatial data. Generalized microcomputer support would be severely reduced and in some instances curtailed.

Net Savings: $21.4K

Impacts: Information and Technology Services automation support staff would be reduced by about 15% (1 of 7 staff members). Automation support efforts relating to Goals 2 and 4 would be reduced.

Specific impacts are as follows: (1) Support to EMTC automation resources would be accomplished on a priority sequential basis, resulting in delays in response time. (2) No regularly scheduled microcomputer support (hardware, software, preventive maintenance) would be offered to Field Stations. (3) No regularly scheduled microcomputer support (hardware, software, preventive maintenance) would be offered to the EMTC. (4) Repairs would be prioritized, resulting in possible elimination of some equipment. (5) Microcomputer hardware and software upgrades would be severely reduced and possibly curtailed. (6) Ongoing automation support required to manage, analyze, and safeguard component and spatial data would continue, but at a reduced pace. Emphasis would be placed on day-to-day activities, reducing the ability to enhance and/or modify data management and analysis capabilities.

Overall, Action 4 would reduce automation support staff by over 40% (3 of 7 staff members). The cumulative effects of this Action would significantly reduce the ability of Information and Technology Services to provide automation support to LTRMP scientists and technical staff. In addition, the LTRMP's ability to share collected data with Program Partners and the public would be restricted.

B. Reduce EMTC Report Production Capabilities.

Description: The LTRMP Technical and Special report series would be discontinued; these reports would be developed by authors through non-LTRMP channels. Reprint and Program report series and *River Almanac* publications would be reduced. Graphics support to LTRMP personnel would be eliminated.

Net Savings: $112.4K

Impacts: Information and Technology Services report production staff would be reduced by 60% (3 of 5 FTEs). This action would effectively eliminate LTRMP Technical and Special reports. (1) Currently, 90 LTRMP reports are pending (11 in Editing, 19 Reprints in process, 10 reports in external review, 8 with authors for incorporation of review comments, 3 with Project Leaders with review comments, 2 in final wordprocessing, 1 at printer, 1 routing for approval, 35 pending from authors). This action would result in the need to seek other outlets for publication of many of these reports. All Technical and Special reports would be returned to authors for development of publication through non-LTRMP channels. Although some reports in the LTRMP Technical and Special series

Action IV. (cont'd)

may be appropriate for journal publication consideration, others contain information pertinent to LTRMP Partners but not suitable for publication through such outlets. (2) This $76.0K cut in report group salaries would reduce the group's capabilities to FY 1992 levels, resulting in the loss of 1.5 technical editors, 0.5 graphic artist, 0.5 wordprocessing specialist, and 0.5 desktop publisher. The coherence of established LTRMP report series would be disrupted, resulting in more difficult access to Program information. (4) Requests for existing reports would all be referred to the National Technical Information Service for purchase. (5) Graphics support would be eliminated. (6) Coordination of and technical editing support to special projects would be severely restricted.

C. Reduce GIS Product Support and New Geospatial Technologies.

Description: Support to LTRMP Partners for maps and access to geospatial data would be greatly reduced. No remote sensing applications and evaluations would be undertaken, and new technologies which provide more rapid and low-cost alternatives for data collection and automation would not be explored.

Cost Savings: $37.7K

Impacts: (1) This action would limit work related to comparisons of remote sensing techniques (such as scanning, videography, hyperspectral scanners, and other new technologies) that could be used to develop spatial land cover databases at lower cost and more rapidly than traditional methods allow. (2) This action would severely limit the amount of support provided to Program Partners to meet requests for map products and digital data upon request. Support would be limited to data availability on the EMTC server over the Internet.

ALT IV

Cuts ITS staff by 50% (6 of 12) 50% Reduction

2 NBS – 4 COOP

Action V. Reduce Spatial Extent of LTRMP by Eliminating Field Station(s)

Description: Eliminate 1-3 Field Stations.

Cost Savings:
(1) $ 423.2K (Close 1 Field Station)
(2) $ 803.6K (Close 2 Field Stations)
(3) $1,182.7K (Close 3 Field Stations)

Justification and Impacts: One approach to Program reduction is to secure continued production of the maximum amount of information which is useful to resource managers. Further, the only way to reduce fixed capital costs, such as maintenance, equipment, and leases, is to eliminate facilities. Elimination of Field Stations would result in a proportional reduction of monitoring data and a real reduction of the spatial extent of the monitoring program.

The LTRMP maintains one Field Station on the Illinois River, which is not an interjurisdictional river. Although data from the Illinois River have been informative and have provided an interesting contrast, those data are not critical to interpretation of data from the Mississippi River.

At the inception of the LTRMP, it was recognized that the mainstem of the Upper Mississippi River could be partitioned into three distinct reaches. Pools 1-13 comprise a reach characterized by navigation management by impoundment with relatively little floodplain agriculture, and hence few levees. This reach has a high proportion of off-channel aquatic area. Pools 14-26 comprise a reach characterized by impoundment, but with relatively more floodplain agriculture and levees, and therefore less off-channel aquatic area. The open river reach from Lock and Dam 26 to the confluence of the Ohio River is characterized by navigation management by channel alignment and a floodplain dominated by agriculture. This reach has very little off-channel aquatic area. Substantial patterns in LTRMP trend data—for example, from the first 5 years of fish data—are largely consistent with this reach classification.

The LTRMP maintains three Field Stations in the reach defined by Pools 1-13 but only one Field Station in each of the other two reaches. Elimination of two of the three Field Stations in the reach defined by Pools 1-13 would eliminate two-thirds of the data obtained from this reach, but because of within-reach similarities, would not sacrifice nearly the same fraction of useful information.

Action VI. Reduce Scope of LTRMP by Eliminating Measurement of Certain Parameters or Features and Sampling Intensity

Description: Reduce sampling rigor within Field Stations by reducing the number of variables measured and/or sampling intensity, thus allowing reduction and consolidation of field crews. Elimination of entire components is, at present, too drastic because that action would preclude the ability to integrate information among components as prescribed in the Comprehensive Master Plan and in the Water Resources Development Act of 1986.

There are at least two non-fatal (to the LTRMP) scenarios: (1) Reduce the intensity and rigor of the water quality, fish, and invertebrate components, and possibly the aquatic vegetation component, by consolidating field crews and measuring fewer variables. This action would allow elimination of two staff members per Field Station and would reduce laboratory costs. However, this action would not reduce certain Field Station fixed costs. (2) Implement the first scenario plus eliminate approximately 50% of the aquatic vegetation component (by eliminating one additional position per Field Station for those stations that have positions under vegetation monitoring), eliminate monitoring of terrestrial vegetation, and reduce photointerpretation of aerial photography.

Cost Savings: (1) $ 618.3K
(2) $1,053.8K

Justification and Impacts: Reduction of sampling rigor within Field Stations by reducing the number of variables measured and/or sampling intensity is another way of producing savings. This action reduces the array of responses that can be detected and, if sampling intensity is reduced too far, may eliminate all ability to detect trends and integrate information among components. It is currently difficult to project the ultimate effects of the Program because this action would require redesign of fundamental procedures. Some effects would be revealed only when specific redesign alternatives are developed.

Action VII. Eliminate Computerized Information and Analysis (CIA) System

Description - All CIA activities in the Information and Technology Services and Geospatial Applications Divisions would be eliminated, as follows: (1) Providing direction for automation activities (required by Federal regulation and Departmental policy. (2) Developing LTRMP systemic geographic information system. (3) Providing data management and analysis capabilities for LTRMP data (storage, retrieval, display, and transfer). (4) Acquiring, installing, operating, and maintaining computer hardware and software required to accomplish GIS and database management activities. (5) Maintaining automation hardware, software, and communications systems required to support GIS and database management activities (includes GPS). (6) Providing access to LTRMP component and spatial data (information transfer/executive briefing). (7) Acquiring, installing, operating, and maintaining external communications (access to LTRMP data) capabilities. (8) Training in the use of computer and GIS software. (9) Information security activities/data backups.

Cost Savings: $822.0K (A = $245.4, B = $576.6)

A. Eliminate Geospatial Applications Support to EMP.

Description: Eliminate LTRMP funding for Geospatial Applications Division activities and staff associated with the CIA.

Cost Savings: $245.4

Justification and Impacts: This action results in loss of critical spatial data, restricting the ability of Program Partners to produce the mandated report to Congress. This action would also result in reductions in data acquisition which were to be used in formulating systemic evaluation of habitat restoration projects and in providing spatial data in support of navigation expansion studies.

Savings would result from the following actions: (1) Elimination of staff associated with CIA activities; approximately 56.7% of Geospatial Applications staff ($148.1K). (2) Elimination of university co-op student support ($39.0K).

This action would result in a complete shutdown of all Geospatial Applications activities at the EMTC, including access to spatial data, gathering and analysis of remote sensing data, production of maps and digital files, Global Positioning System support and the GPS base station, database development linkages with component data or any other spatial data, GIS training and support to river managers, development of spatial analysis tools and applications, and development of map products for scientific posters and papers.

This action would also eliminate all LTRMP spatial support for trend analysis and change detection, spatial integration of component data, support to migratory bird and wildlife efforts, and site-specific or pool-wide modeling applications. Vegetation monitoring would be affected by severely reduced support for aerial photography, maps for random sampling and bathymetry would not be produced, and forest data would not be monitored, mapped, or analyzed. There would be no GIS support or spatial data available through the UNIX computing environment, over the Internet, or through easy-to-use PC-based spatial analysis applications.

Action VII. (cont'd)

B. Eliminate Information and Technology Services Support to EMP.

Description: Eliminate LTRMP funding for Information and Technology Services Division activities and staff associated with the CIA.

Cost Savings: $576.K

Justification and Impacts: This action would result in drastic reductions in or, in some instances, the elimination of existing capabilities to share the results of LTRMP efforts with decision makers and resource managers. The following impacts would occur: (1) Ten UNIX servers that support GIS (ARC/INFO), analysis (SAS), sharing of data (WWW, WAIS and Anonymous FTP), data management (Oracle), satellite imagery (ERDAS), and modeling (FastTABS) would no longer be available for LTRMP use. (2) All current LTRMP information sharing activities relating to component data would be eliminated. (3) All activities associated with the interactive sharing of LTRMP data would be eliminated. (4) All data management activities associated with the LTRMP would be eliminated. (5) All hardware and software support associated with LTRMP data management would be eliminated. (6) All existing support for data collection (data entry contract, processing of monitoring data, data archive and retrieval, would be eliminated. (7) All automated data transfer activities would be eliminated. (8) All database programming support for the LTRMP budget, photo library property inventory, metadata, and other databases would be eliminated. (9) The data archive and retrieval library would be eliminated. (10) All existing abilities to maintain and monitor voice and data connectivity (FTS,VON, and credit card telephone services; dedicated line to Internet for E-mail; and online services) would be severely reduced. (11) The ability to monitor network and user security and to maintain and support E-mail services within the LTRMP (EMTC and Field Stations) would be severely reduced.

Lose 5 of 7 staff members - ITS 4 NBS / 1 COOP

HW cut by 80%

SW Cut by 80%

PRELIMINARY DRAFT: FOR OFFICIAL USE ONLY

Alternative Approaches
LTRMP Fiscal Year 1997 Budget Reductions
High LTRMP/CIA

Background:

EMP Funding FY 1992-1996:	$19.455 million per year
President's EMP Budget:	$15.694 million
Congressional Action and Final Budget:	*Unknown*
HIGH LTRMP/CIA Funding:	LTRMP $ 5.500 million*
	HREP $10.194 million

Corps of Engineers indicates that Savings and Slippage (10%) will be applied to LTRMP in FY 1997

LTRMP Target Reduction = $1.05 Million (5.955 - 5.500 = .455 + .550 S&S)

Potential Actions:

Action I. Reduce Operational Expenses: $361.5K (EMTC $217.5K, Field Stations $144.0K)

Action II. Discontinue Certain Scheduled Activities: $280.0K

Action III. Apply Savings and Slippage (10%) Equally to all Program Elements: $550.0K

* Based on target provided by Corps of Engineers, North Central Division

The budget information contained in this document is preliminary in nature and will be subject to change based upon the results of additional analysis by EMTC staff, the LTRMP Analysis Team, EMP-CC, Management Review Committee, Science Review Committee, and Congressional actions. Actual savings may be less than stated due to fixed costs which may not be reduced and personnel who perform work across multiple Goals. Savings from Fixed Actions I and II are included in all subsequent Actions. Savings noted in Actions III through VII were independently determined and stand alone; therefore, any combination of Actions III through VII may result in reduced savings.

Budget Reduction Actions

Action I. Reduce Operational Expenses

Description: Reduce operational costs supporting Goals 1-4.

Total Savings: $361.5K (EMTC $217.5K; Field Stations $144.0K)

Justification and Impacts: Savings would result from the following actions: (1) All EMTC staff training and travel except for mandatory training and critical meeting attendance would be eliminated ($35.0K). (2) Equipment replacement would be stopped, with repairs only provided ($25.0K). (3) Hardware and software purchases would be delayed or stopped ($2.0K). (4) Report printing would be reduced ($10.0K). (5) Aerial photography collection would be reduced ($26.0K). (6) Software and hardware maintenance would be greatly reduced ($35.0K). (7) Acquisition of supplies would be greatly reduced ($25.0K). (8) Support services would be reduced ($25.0K). (9) Overhead savings from the above reductions ($34.5K). (10) Field Stations: Alton ($12.8K), Havana ($21.0K), Onalaska ($16.6K), Lake City ($21.1K), Open River ($50.7K), Bellevue ($15.0K). (11) Field Station overhead savings ($6.8K).

Few apparent short-term impacts will be felt in the Program because some of the losses can most immediately be categorized as intangible. For instance, impacts from loss of training (except mandatory training) will only be manifested in out-years as lower productivity, high staff turnover, and reduced morale. In the long term, however, because the Program is involved in rapidly evolving and changing technology, Program productivity will deteriorate and suffer.

This action would severely reduce the number of aerial photographs collected annually as part of Task 2.2.4.5 and would restrict LTRMP aerial photography coverage to a limited area within portions of a few study pools. This gap in aerial photography will be a permanent, irretrievable loss, and Program objectives must be restructured accordingly.

Because the LTRMP is not cost-indexed and additional future reductions are given even with full funding, these reductions will simply amplify the severity of out-year impacts.

Reductions in automation support activities will result in a prioritization of work efforts and some delays in hardware/software replacements and upgrades.

Action II. Discontinue Certain Scheduled Activities

Description: Discontinue certain scheduled activities and eliminate vacant positions.

Total Savings: $280.0K

Justification and Impacts: Savings would result from the following actions: (1) Do not fill vacant remote sensing position ($57.9K). (2) Cancel plans to hire co-op student to assist Administrative staff in updating all property records ($6.1K). (3) Reduce Corps support from the Waterways Experiment Station ($75.0K). (4) Cancel further sediment data collection within the USGS cost-share program ($75.0K). (5) Cancel plans to hire co-op students to complete post-flood forest data collection ($24.0K). (6) Overhead assessment savings from the above reductions ($20.1K). (7) Reduce Information and Technology Services support ($14.2). (8) Reduce Partnership Coordination support ($2.7K). (9) Reduce Geospatial Applications support ($5.0K).

This action would cancel Task 2.3.1.2E, "Systemic changes in land-water

boundaries: 1970s, 1980s, 1990s." The information gathered under this Task would have provided essential data required for integration of systemic land cover/use change analysis. This effort was a continuation of a pilot effort conducted the previous fiscal year.

The discontinued activities under this Action would result in continued incomplete LTRMP property records, no further sediment data collection to quantify sediment budgets in priority pools and reaches, no systemic analysis or reporting for available Landsat data, no additional data to quantify 1993 flood impacts on the structure of UMRS forests, and elimination of close coordination of the LTRMP with the Waterways Experiment Station.

Action III. Apply Savings and Slippage to All Program Elements

Description: The Corps of Engineers has indicated that Savings and Slippage will be applied to the LTRMP/CIA in FY 1997. This cost would be applied equally to Program elements at the EMTC and Field Stations.

Total Savings: $550.0K

Justification and Impacts: All Program elements at the EMTC and Field Stations would be reduced by 10% to reflect Savings and Slippage assessments.

WATER RESOURCES DEVELOPMENT ACT OF 1986 (P.L. 99-662)

SEC. 1103. UPPER MISSISSIPPI RIVER PLAN.

(a)(1) This section may be cited as the "Upper Mississippi River Management Act of 1986".

(2) To ensure the coordinated development and enhancement of the Upper Mississippi River system, it is hereby declared to be the intent of Congress to recognize that system as a nationally significant ecosystem and a nationally significant commercial navigation system. Congress further recognizes that the system provides a diversity of opportunities and experiences. The system shall be administered and regulated in recognition of its several purposes.

(b) For purposes of this section--

(1) the terms "Upper Mississippi River system" and "system" mean those river reaches having commercial navigation channels on the Mississippi River main stem north of Cairo, Illinois; the Minnesota River, Minnesota; Black River, Wisconsin, Saint Croix River, Minnesota and Wisconsin; Illinois River and Waterway, Illinois; and Kaskaskia River, Illinois;

(2) the term "Master Plan" means the comprehensive master plan for the management of the Upper Mississippi River system, dated January 1, 1982, prepared by the Upper Mississippi River Basin Commission and submitted to Congress pursuant to Public Law 95-502;

(3) the term "GREAT I, GREAT II, and GRRM studies" means the studies entitled "GREAT Environmental Action Team-- GREAT I--A Study of the Upper Mississippi River", dated September 1980, "GREAT River Environmental Action Team-- GREAT II--A Study of the Upper Mississippi River", dated December 1980, and "GREAT River Resource Management Study", dated September 1982; and

(4) the term "Upper Mississippi River Basin Association" means an association of the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, formed for the purposes of cooperative effort and united assistance in the comprehensive planning for the use, protection, growth, and development of the Upper Mississippi River System.

(c)(1) Congress hereby approves the Master Plan as a guide for future water policy on the Upper Mississippi River system. Such approval shall not constitute authorization of any recommendation contained in the Master Plan.

(2) Section 101 of Public Law 95-502 is amended by striking out the last two sentences of subsection (b), striking out subsection (i), striking out the final sentence of subsection (j), and redesignating subsection "(j)" as subsection "(i)".

(d)(1) The consent of the Congress is hereby given to the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, or any two or more of such States, to enter into negotiations for agreements, not in conflict with any law of the United States, for cooperative effort and mutual assistance in the comprehensive planning for the use, protection, growth, and development of the Upper Mississippi River system, and to establish such agencies, joint or otherwise, or designate an existing multi-State entity, as they may deem desirable for making effective such agreements. To the extent required by Article I, section 10 of the Constitution, such agreements shall become final only after ratification by an Act of Congress.

(2) The Secretary is authorized to enter into cooperative agreements with the Upper Mississippi River Basin Association or any other agency established under paragraph (1) of this subsection to promote and facilitate active State government participation in the river system management, development, and protection.

(3) For the purpose of ensuring the coordinated planning and implementation of programs authorized in subsection (e) and (h)(2) of this section, the Secretary shall enter into an interagency agreement with the Secretary of the Interior to provide for the direct

participation of, and transfer of funds to, the Fish and Wildlife Service and any other agency or bureau of the Department of the Interior for the planning, design, implementation, and evaluation of such programs.

(4) The Upper Mississippi River Basin Association or any other agency established under paragraph (1) of this subsection is hereby designated by Congress as the caretaker of the master plan. Any changes to the master plan recommended by the Secretary shall be submitted to such association or agency for review. Such association or agency may make such comments with respect to such recommendations and offer other recommended changes to the master plan as such comments and other recommended changes to the Secretary. The Secretary shall transmit such recommendations along with the comments and other recommended changes of such association or agency to the Congress for approval within 90 days of the receipt of such comments or recommended changes.

(e)(1) The Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, is authorized to undertake, as identified in the master plan--

(A) a program for the planning, construction, and evaluation of measures for fish and wildlife habitat rehabilitation and enhancement;

(B) implementation of a long-term resource monitoring program; and

(C) implementation of a computerized inventory and analysis system.

(2) Each program referred to in paragraph (1) shall be carried out for ten years. Before the last day of such ten-year period, the Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, shall conduct an evaluation of such programs and submit a report on the results of such evaluation to Congress. Such evaluation shall determine each such program's effectiveness, strengths, and weaknesses and contain recommendations for the modification and continuance or termination of such program.

(3) For purposes of carrying out paragraph (1)(A) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $8,200,000 for the first fiscal year beginning after the date of enactment of this Act, not to exceed $12,400,000 for the second fiscal year beginning after the date of enactment of this Act, and not to exceed $13,000,000 per fiscal year for each of the succeeding eight fiscal years.

(4) For purposes of carrying out paragraph (1)(B) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $7,680,000 for the first fiscal year beginning after the date of enactment of this Act and not to exceed $5,080,000 per fiscal year for each of the succeeding nine fiscal years.

(5) For purposes of carrying out paragraph (1)(C) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $40,000 for the first fiscal year beginning after the date of enactment of this Act, not to exceed $280,000 for the second fiscal year beginning after the date of enactment of this Act, not to exceed $1,220,000 for the third fiscal year beginning after the date of enactment of this Act, and not to exceed $875,000 per fiscal year for each of the succeeding seven fiscal years of this Act.

(6)(A) Notwithstanding the provisions of subsection (a)(2) of this section, the costs of each project carried out pursuant to paragraph (1)(A) of this subsection shall be allocated between the Secretary and the appropriate non-Federal sponsor in accordance with the provisions of section 906 of this Act.

(B) Notwithstanding the provisions of subsection (a)(2) of this section, the cost of implementing the activities authorized by paragraphs (1)(B) and (1)(C) of this subsection shall be allocated in accordance with the provisions of section 906 of this Act, as if such activity was required to mitigate losses to fish and wildlife.

(7) None of the funds appropriated pursuant to any authorization contained in this subsection shall be considered to be chargeable to navigation.

(f)(1) The Secretary, in consultation with any agency established under subsection (d)(1) of this section, is authorized to implement a program of recreational projects for the system

substantially in accordance with the recommendations of the GREAT I, GREAT II, and GRRM studies and the master plan reports. In addition, the Secretary, in consultation with any such agency, shall, at Federal expense, conduct an assessment of the economic benefits generated by recreational activities in the system. The cost of each such project shall be allocated between the Secretary and the appropriate non-Federal sponsor in accordance with title I of this Act.

(2)(A) For purposes of carrying out the program of recreational projects authorized in paragraph (1) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $500,000 per fiscal year for each of the first ten fiscal years beginning after the effective date of this section.

(B) For purposes of carrying out the assessment of the economic benefits of recreational activities as authorized in paragraph (1) of this subsection, there is authorized to be appropriated to the Secretary not to exceed $300,000 per fiscal year for the first and second fiscal years beginning after the computerized inventory and analysis system implemented pursuant to subsection (e)(1)(C) of this section is fully functional and $150,000 for the third such fiscal year.

(g) The Secretary shall, in his budget request, identify those measures developed by the Secretary, in consultation with the Secretary of Transportation and any agency established undertaken subsection (d)(1) of this section, to be under to increase the capacity of specific locks throughout the system by employing nonstructural measures and making minor structural improvements.

(h)(1) The Secretary, in consultation with any agency established under subsection (d)(1) of this section, shall monitor traffic movements on the system for the purpose of verifying lock capacity, updating traffic projections, and refining the economic evaluation so as to verify the need for future capacity expansion of the system.

(2) The Secretary, in consultation with the Secretary of the Interior and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, shall determine the need for river rehabilitation and environmental enhancement and protection based on the condition of the environment, project developments, and projected environmental impacts from implementing any proposals resulting from recommendations made under subsection (g) and paragraph (1) of this subsection.

(3) There is authorized to be appropriated to the Secretary such sums as may be necessary to carry out this subsection.

(i)(1) The Secretary shall, as he determines feasible, dispose of dredged material from the system pursuant to the recommendations of the GREAT I, GREAT II, and GRRM studies.

(2) The Secretary shall establish and request appropriate Federal funding for a program to facilitate productive uses of dredged material. The Secretary shall work with the States which have, within their boundaries, any part of the system to identify potential users of dredged material.

(j) The Secretary is authorized to provide for the engineering, design, and construction of a second lock at locks and dam 26, Mississippi River, Alton, Illinois and Missouri, at a total cost of $220,000,000, with a first Federal cost of $220,000,000. Such second lock shall be constructed at or in the vicinity of the location of the replacement lock authorized by section 102 of Public Law 95-502. Section 102 of this Act shall apply to the project authorized by this subsection.

Section 405, Water Resources Development Act of 1990 (P.L. 101-640).

Authorization for a 5-year extension of the Upper Mississippi River System Environmental Management Program was provided for in Section 405 of the Water Resources Development Act of 1990. P.L. 101-640 provided amending language to P.L. 99-662 and it reads as follows:

Section 405. Upper Mississippi River Plan.

Section 1103 of the Water Resources Development Act of 1986 (33 U.S.C. 652) is amended--

(1) in paragraph(e)(2) by striking "ten" and inserting "15";

(2) in paragraph (e)(3) by striking "eight" and inserting "13";

(3) in paragraph (e)(4) by striking "nine" and inserting "14";

(4) in paragraph (e)(5) by striking "seven" and inserting "12"; and

(5) in paragraph (f)(2)(A) by striking "ten" and inserting "15"

P.L. 102-580

SEC. 107. UPPER MISSISSIPPI RIVER PLAN.

(a) EXTENSION OF AUTHORIZATION.—Section 1103(e) of the Water Resources Development Act of 1986 (33 U.S.C. 652(e)) is amended—

(1) in paragraph (2) by striking "ten" each place it appears and inserting "15";

(2) by redesignating paragraphs (6) and (7) as paragraphs (7) and (8), respectively; and

(3) by inserting after paragraph (5) the following new paragraph:

"(6) TRANSFER OF AMOUNTS.—

"(A) GENERAL RULE.—Subject to subparagraph (B), for each fiscal year beginning after September 30, 1992, the Secretary, in consultation with the Secretary of the Interior, and the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, may transfer not to exceed 20 percent of the amount appropriated to carry out each of subparagraphs (A), (B), and (C) of paragraph (1) to carry out any other of such subparagraphs.

~~47~~
A-5

"(B) LIMITATION.—The aggregate amounts obligated in fiscal years 1988 through 2002—

"(i) to carry out paragraph (1)(A) may not exceed $189,600,000;

"(ii) to carry out paragraph (1)(B) may not exceed $78,800,000; and

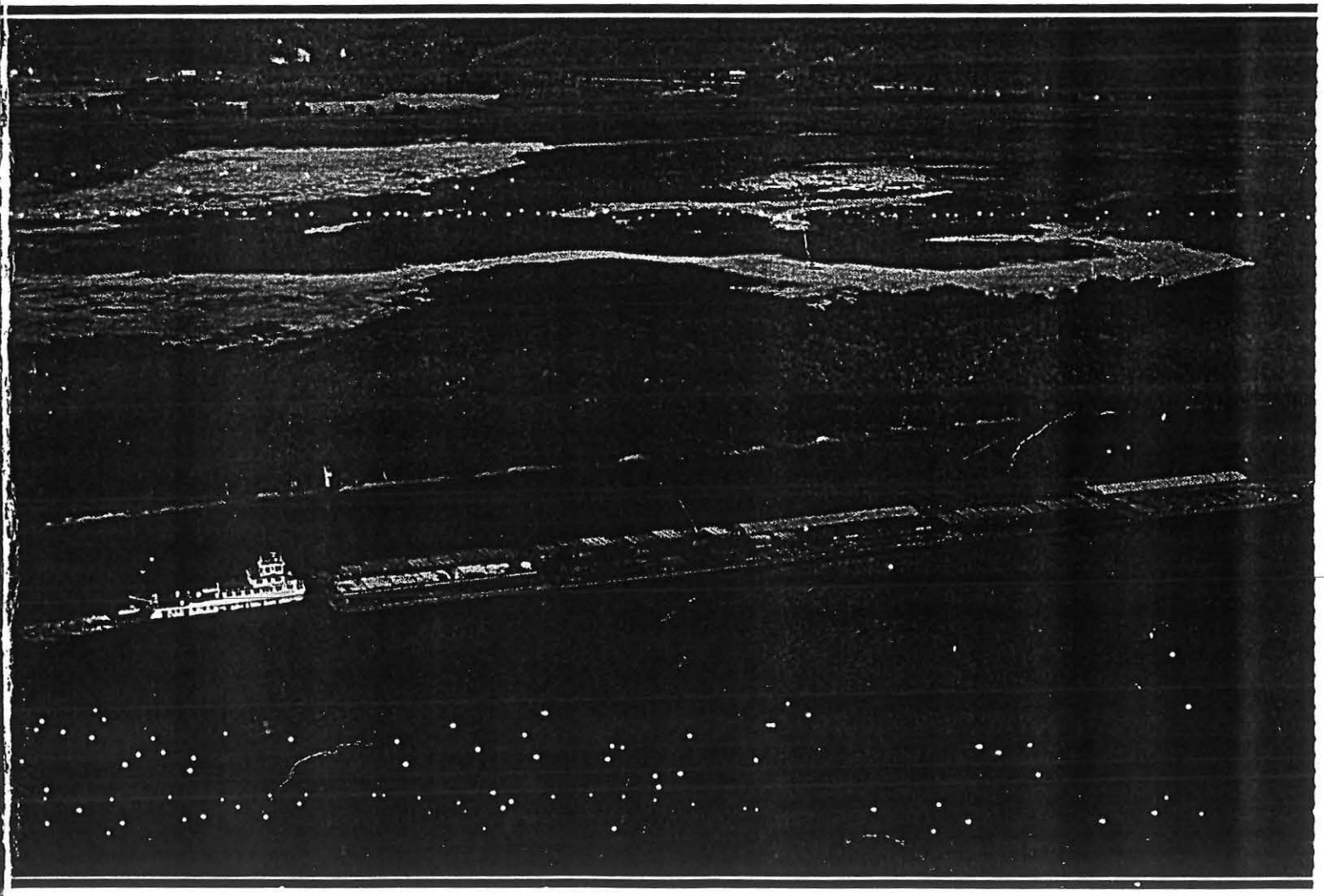
"(iii) to carry out paragraph (1)(C) may not exceed $12,040,000.".

(b) FISH AND WILDLIFE HABITAT REHABILITATION AND ENHANCEMENT PROJECTS.—Section 1103(e) of such Act is amended by striking paragraph (7)(A), as redesignated by subsection (a)(2), and inserting the following new paragraph:

"(7)(A) Notwithstanding the provisions of subsection (a)(2) of this section, the costs of each project carried out pursuant to paragraph (1)(A) of this subsection shall be allocated between the Secretary and the appropriate non-Federal sponsor in accordance with the provisions of section 906(e) of this Act; except that the costs of operation and maintenance of projects located on Federal lands or lands owned or operated by a State or local government shall be borne by the Federal, State, or local agency that is responsible for management activities for fish and wildlife on such lands.".

~~16~~
1-6

Comprehensive Master Plan for the Management of the Upper Mississippi River System



January 1, 1982
Upper Mississippi River Basin Commission

42

CONGRESS IMMEDIATELY AUTHORIZE A HABITAT REHABILITATION AND ENHANCEMENT PROGRAM TO PLAN, CONSTRUCT, AND EVALUATE PROJECTS TO PROTECT, ENHANCE, OR REHABILITATE AQUATIC AND TERRESTRIAL HABITATS LOST OR THREATENED AS A RESULT OF MAN-INDUCED ACTIVITIES OR NATURAL FACTORS.

Existing data and studies completed under the Master Plan conclude that the natural environment of the UMRS is degrading at a rapid rate as a result of a combination of man-induced and natural forces, including past and existing operation and maintenance activities of the navigation system. These studies have further concluded that the degradation of the system is being hastened by the effects of commercial navigation.

In order to provide for the reasonable development and use of the system for commercial navigation without destroying the valuable environment which is unique to the system, a program of environmental protection and preservation should be immediately undertaken.

The Habitat Rehabilitation and Enhancement Program would consist of numerous enhancement efforts aimed at the implementation of techniques to preserve, protect, and restore habitat that is deteriorating due to natural and man-induced activities. The enhancement effort would extend for a ten-year period in order to adequately evaluate and understand the effectiveness of techniques and measures being applied to protect, enhance, or rehabilitate habitat. In addition to direct protection and enhancement of habitat, the results of the effort will also provide a better understanding of the various impacts on habitat, both natural and man-induced.

In addition to direct protection and enhancement of habitat, the results of the effort will provide a better understanding of the various natural and man-induced effects on habitat integrity. This knowledge will be useful in addressing future UMRS multi-purpose management decisions.

The Habitat Rehabilitation and Enhancement Program would consist of three basic program elements: planning, construction or non-structural equivalent, and evaluation.

Planning - The Upper Mississippi River System is extremely diverse in terms of habitat type, susceptibility to impact, and type of enhancement technique applicable. Therefore, separate plans are recommended for the following reaches:

- Pools 1-10 and navigable tributaries
- Pools 11-19
- Pools 20-27
- Open River above Cairo
- Illinois River
- Kaskaskia River

Rehabilitation and enhancement plans for each reach would identify refuge lands, natural areas, and critical habitat. In addition, areas would be identified where physical and biological impacts are occurring or are likely to occur including specific problem areas identified in the GREAT studies.

Plans will then locate, describe, and prioritize enhancement features (structural and non-structural) for implementation for each river reach. A primary source of this information would be the Mitigation and Enhancement Handbook.

This strategy of combining and relating baseline resource data, impact relationships, and enhancement techniques was initiated in the Master Plan studies. A sample rehabilitation and enhancement plan was prepared for the Weaver Bottoms area in Pool 5 of the upper river. Similar plans for each river reach would

be developed and specific sites chosen within each reach to initiate the plan by instituting pilot projects.

The last step in the planning effort would be to develop detailed schedules and budgets for the implementation of each rehabilitation and enhancement plan in accordance with the established priorities.

Construction or Non-Structural Equivalent - It is recommended that a phased implementation of the habitat rehabilitation and enhancement plans be followed. Construction or non-structural equivalent activity would follow the priorities, schedule, and budget outlined in each of the Habitat Rehabilitation and Enhancement Plans prepared in the planning phase and would be further refined based on the evaluation of the pilot projects. Examples of potential rehabilitation and enhancement techniques include:

Backwater/Side Channels/Tributaries
- provide upland erosion control
- provide bank stabilization
- provide flow defectors
- realignment of navigation channel
- improve delineation of channel limits
- speed and timing restrictions near side channel openings
- install water control structures
- open side channels by dredging
- notch wing dikes or closing structures

Bank Erosion (Main channel, main channel border and tributaries)
- provide bank stabilization
- navigation channel alignment
- artificial island creation
- improve dredging practices
- speed and timing restrictions in narrow channels, tight turns

Water Quality
- reduce non-point discharges of hazardous or toxic material
- improved land treatment to reduce turbidity
- improve sediment flushing in the system so toxics do not persist

Fish and Wildlife
- manage pool level fluctuations

Evaluation - The Habitat Rehabilitation and Enhancement Program should be monitored and evaluated on a continuous basis. This will serve to:

(1) continuously monitor and evaluate impacts from natural and man-induced causes on habitat, and

(2) describe and analyze the effectiveness of various enhancement features in preserving, protecting, and restoring habitat areas.

As a result of the evaluation phase individual enhancement measures can be further refined to better accomplish their enhancement objective. Future enhancement activities will be designed based on the results of these evaluations. In addition, the evaluation phase will identify proven techniques that may be implemented to mitigate any adverse impacts of increased navigation in the system in the short-term as well as for evaluating any long-term navigation improvement considerations and thus provide a basis for future updates of the Mitigation and Enhancement Handbook.

CONGRESS IMMEDIATELY AUTHORIZE IMPLEMENTATION OF A LONG-TERM RESOURCE MONITORING PROGRAM.

In addition to immediate implementation of projects to rehabilitate and enhance habitat areas, the evaluation phase of those projects and the ability to understand complex and dynamic system relationships depends on continued monitoring. A long-term resource monitoring program (LTRM) is needed to enable decision-makers to measure ecological impacts attributable to a combination of natural and man-induced forces. Included in that program are specific actions to further our understanding of the physical, chemical, and biological relationships in the system. The program would improve the understanding of future multi-purpose management needs and help determine equitable management actions.

Data have been collected over the years on many aspects of the environment of the UMRS. Differences in sampling methods, assessment instruments and analysis have made systemwide comparisons difficult. The implementation of this recommendation would provide a consistent, standardized resource monitoring program.

The Master Plan studies have identified the environmental variables to be monitored with respect to fish and wildlife, water quality, wilderness, and public recreational opportunities of the UMRS. Such variables include but are not limited to:

- Land use changes with respect to agriculture, commercial, industrial, urban, forest, transportation, and flood control.
- Habitat changes for aquatic and terrestrial organisms due to natural forces and man's actions.
- Species composition and relationships with habitat types.
- Rates, sources, and causes of sedimentation, sediment deposition, and resuspension.
- Recreational uses including temporal and spatial variations.

It is anticipated that a period of five years will be required to fully implement the LTRM program. Once fully in operation the LTRM could be an integral part of the management of the UMRS. The success of the Long-Term Resource Monitoring Program depends on the development of a computerized analytical inventory and analysis system for data storage, retrieval, and comparison.

CONGRESS IMMEDIATELY AUTHORIZE IMPLEMENTATION OF A COMPUTERIZED INVENTORY AND ANALYSIS SYSTEM FOR DATA STORAGE AND RETRIEVAL, AND FOR USE IN THE LONG-TERM RESOURCE MONITORING PROGRAM.

Alternative levels of computerized information systems were evaluated in the context of UMRS systemic management needs as identified by all components of the Master Plan. The needs for centralized, consistent, comprehensive, and current data identified in the navigation, natural resource and recreation recommendations is recognized as critical for future multi-purpose resource management decisions in the UMRS.

The Commission recognized that a fully operational centralized data repository and processing center requires a sequencial development of the major components of the system. The Computerized Inventory and Analysis System should be developed according to the following steps, and be operational by 1987:

1) Continue utilization of the Minnesota Land Mangement

Information Center or similar system to maintain and update information gathered during the Master Plan process.

2) Develop an information transfer service to provide for identification and transfer of information and technology while evaluating and improving the system. This phase should provide full service in the storage and distribution of data being developed and analyzed in the programs outlined in both the environmental and transportation recommendations.

3) Develop a management briefing system to provide support information to resource management entities of the UMRS.

4) Establish a geographic information center to serve as a centralized processing and repository center for system-wide information. All data from the distribution process network would be centralized for utilization by all participating entities.

A Geobased Information System (GIS) would provide an effective mechanism for the evaluation and analysis of the impacts associated with alternative multi-purpose river resource management proposals. Such a system is an essential component of a Long-Term Resource Monitoring Program. It would enhance the effectiveness of such a monitoring program because it would provide the capability of entry and retrieval of data, statistical analysis, modeling, spatial data manipulation, and interface with other systems.

CONGRESS IMMEDIATELY AUTHORIZE THE IMPLEMENTATION OF A PROGRAM OF RECREATIONAL PROJECTS AND THE CONDUCT OF AN ASSESSMENT OF THE ECONOMIC BENEFITS GENERATED BY RECREATIONAL ACTIVITIES IN THE UMRS.

GREAT studies and SCORP (State Comprehensive Outdoor Recreation Plan) programs have identified the need for the development of river-oriented recreation projects to meet growing demands. In addition, the Corps of Engineers and the U.S. Fish and Wildlife Service are coordinating their efforts to develop recreation resource management plans for Federally-owned lands in the UMRS. The Commission recommends that recreational development projects be implemented at Federal expense on a priority basis as determined by the institutional arrangement recommended in the Master Plan. Funding should be provided through this program only for those projects not funded from other sources. Selection of projects should be based upon coordination with State and Federal agencies under whose management the program depends.

Although recreational use has been inventoried on portions of the UMRS by various studies including GREAT, the long-term resource monitoring program would complete and continuously update these inventories on a systemwide basis. In addition, preliminary estimates have been made which suggest that recreational activities and commercial fishing and trapping contribute substantially to the economic health of the region. However, the specific economic value of this resource has never been fully understood. Recreation on the UMRS supports hundreds of marinas, restaurants, sporting goods stores, motels, etc. The recreation industry and investments are a vital part of the economy of many local communities. However, the ramifications of fluctuations in the recreation industry on the local, regional, and national economy are not well understood. In addition, the value of the natural resources (wildlife habitat, beaches, and scenery) to the recreation industry and thus the economy is not fully understood. Therefore, an assessment of the economic aspects of recreational activity and resources should be undertaken. Data obtained should be provided as input to the Long-Term Resource Monitoring Program.

CIA Definition
4/9/96

What is the Computerized Inventory and Analysis System (CIA)?

The CIA includes the following activities:

* Providing direction for automation activities (Required by Federal Law and Departmental policy)
* Development of LTRMP systemic geographic information system
* Providing data management and analysis capabilities for LTRMP data (storage, retrieval, display, and transfer)
* The acquisition, installation, operation, and maintenance of computer hardware and software required to accomplish GIS and DBMS activities
* Maintaining automation hardware, software, and communications systems required to support GIS and database management activities (includes GPS)
* Providing access to LTRMP component and spatial data (Information transfer/executive briefing)
* The acquisition, installation, operation, and maintenance of external communications (access to LTRMP data) capabilities
* Training in the use of computer and GIS software
* Information security activities/data back ups

The CIA does not include the following activities:

* Providing editorial and graphic support in the development of LTRMP reports.
* Providing editorial support in publishing articles in peer-reviewed journals
* The acquisition, installation, operation, and maintenance of EMTC telephone system.
* The acquisition, installation, operation, and maintenance of the electronic mail system.
* The acquisition, installation, operation, and maintenance of the local area networks.
* Maintaining automation hardware, software, and communications systems required to support administrative, research, and monitoring activities (bathymetric equipment, WQ lab, PC's, etc.) except as listed above.
* Data acquisition and data entry
* Annual monitoring activities
* Data analysis (component and spatial)

LONG TERM RESOURCE MONITORING PROGRAM
ANALYSIS TEAM MEETING MINUTES
April 23-24, 1996
Holiday Inn, La Crosse, Wisconsin

A meeting of the Long Term Resource Monitoring Program (LTRMP) Analysis Team convened at 8:00 a.m. on April 23, 1996, at the Holiday Inn in La Crosse, Wisconsin. Attending were team members and others from the states of Illinois, Iowa, Minnesota, Missouri, Wisconsin, the U.S. Fish and Wildlife Service (USFWS), the National Biological Service (NBS), the U.S. Army Corps of Engineers (Corps), the U.S. Environmental Protection Agency (EPA), the National Park Service, and the Minnesota/Wisconsin Boundary Area Commission. An attendance list is attached. The meeting was called in order to address budget cuts as directed by the Environmental Management Program Coordinating Committee (EMPCC).

Analysis Team chairman John Wetzel welcomed team members and called the meeting to order. No agenda changes were proposed.

Corrections to the minutes of the February 13-14, 1996, meeting were noted:

Page 9-Gordon Farabee and Bill Bertrand recommended deleting the fish passage study from the list of over-target items. Page 1-the Analysis Team report was presented to the EMPCC by Terry Moe of the Wisconsin Department of Natural Resources. Page 14-A zebra mussel population model was developed by the Illinois Natural History Survey. Correct spelling: Daphnia lumholtzi Page 8-John Wetzel asked each team member to determine the number of copies of the Status and Trends Report needed by their agencies and to inquire about assisting with distribution costs. The EMTC should contact agencies when a rough draft is available with a memo regarding the opportunity to order additional copies.

The February meeting minutes were approved as amended.

John Wetzel noted that Jon Duyvejonck was substituting for Pam Thiel, the USFWS Analysis Team member. Chairman's Report John Wetzel asked if review comments on the draft multi-year trend reports had been received. Steve Gutreuter said that the reviews are in and asked that Analysis Team members consolidate agency comments in the future to speed the review process.

John asked Steve to clarify the discussion at the previous Analysis Team meeting about review of research scopes of work. Steve Gutreuter said that he asked that Analysis Team members review and provide compiled comments from their respective agencies on scopes of work for LTRMP research. Steve noted that the review process is becoming unmanageable, with increasing numbers of reviews, numerous comments, and conflicting comments from the same agency. Steve emphasized the need for consolidation of reviews at the partner agency level. Bob Delaney recounted discussion from the last meeting at which he said that each Analysis Team member will be provided with five copies of the draft LTRMP Annual Work Plan that they can distribute within their agencies for comment.

John Wetzel discussed the background for scheduling this meeting to discuss the proposed LTRMP impending budget reductions. In a conference call with EMP partners on March 25, a process for establishing program priorities and allocation of available funds given potential budget reductions were discussed with the EMPCC. The EMPCC asked the Analysis Team for input on LTRMP budget reductions. John reviewed the goals for the Analysis Team meeting:

- Develop general framework and criteria for potential program reductions
- Reach consensus on potential program reductions
- Reach understanding and articulate consequences of potential program reductions

Bob Delaney asked if the May 3 spreadsheet (developed by Corps NCD, and distributed to Analysis Team members as part of the meeting information package) reflects LTRMP, HREP, or total EMP allocation. Don Williams said that the spreadsheet is for the LTRMP program. Another allocation spreadsheet for the HREP program was presented to the EMPCC.

Bob reviewed the general strategy for developing recommendations to the EMPCC on potential LTRMP budget reductions. Referring to the spreadsheet, Bob noted that the scenario for the "high LTRMP" includes a $1,000,000 cut. Don Williams said that the spreadsheet reflects a continuity of the LTRMP rather than a "no cut" scenario. Bob emphasized that decisions on the LTRMP budget should not be made with anticipation of outside funding.

Center Director's Report

Bob Delaney reported that NBS will merge with the USGS. A plan for the merger is due in June, and the merger is scheduled to be operational by October 1. The NBS will probably be named the Biological Resources Division. NBS headquarters will move to the USGS headquarters in Reston, Virginia. NBS regional offices will merge into USGS regional offices. USGS peer review and publication procedures will be followed. Some opposition to the merger is growing. The executive board of a recent national fish and wildlife organization resolved that certain elements of the NBS should be moved back into the USFWS.

Bob said that Barry Drazkowski had been discussing strategic planning with the field stations. Division chiefs at EMTC are preparing sections of a strategic plan. The management review committee will convene at EMTC on June 18 and 19. The science review committee will meet in late July or August.

NCD will soon release $143,000 for over-target work. Bob said that EMTC has asked for cost sharing from other agencies for the public survey. Three agencies have indicated interest in sharing the cost of the survey. The newly-printed FY 96 annual work plan contains the over-target work list agreed upon by the Analysis Team.

Budget Reductions

Bob Delaney said that in the spirit of the EMP partners conference call, a full range of options were considered, ranging from fixed cost "belt-tightening" reductions to options that would significantly reduce program functions. Bob said that a review of the options considered will quickly show that significant LTRMP program restructuring will be required to meet a proportional reduction, particularly given the recent Corps policy decision to begin assessing the program savings and slippage. Bob reminded Team members that in addition to EMTC staff, the Analysis Team and the Corps, the EMPCC, UMRBA, the LTRMP management review committee, the science review committee, and Congress will all have a role in determining the final LTRMP budget.

Jerry Skalak said that the EMP report to Congress is required by law and will be done. Two regional scoping workshops (one in La Crosse this week) will help guide content of the report. Funding has been allocated this Fiscal Year and next to prepare the report. The EMTC is already assisting with the report. The draft will be completed by the end of FY 97. Bob Delaney noted that the LTRMP science and management review committees have been asked to complete their work by the end of calendar year 1996.

Tom Boland asked where the budget cuts indicated in the table (page 18 of information package) originated. Don Williams said that Construction General funding allocated to NCD will be reduced over the next several years. Larry Hiipakka at NCD, Director of Programs Management, allocated the available Construction General funding among North Central Division projects and programs, with an emphasis on completing construction projects in progress and maintaining essential programs.

John Wetzel noted that the table (page 20 of the information package) was generated by the Corps for reporting back as required to the Federal Office of Management and Budget (OMB). Tim Schlagenhaft asked if all Corps Construction General projects and programs are taking the same percentage reductions as the EMP. Don Williams said that the same percentage reductions were not made across all programs, but all are being reduced. Norm Hildrum asked if the magnitude of the proposed reductions reflects the Corps interpretation of the current amount of political support for the EMP. Don Williams said that the allocation reflects Corps priorities, which emphasize maintaining its traditional missions as directed by Congress. Don said that Corps funding priorities are 1) flood protection projects, 2) ongoing construction projects, 3) cost-shared projects, and 4) navigation construction projects and other programs like EMP.

Bob Delaney said that there has been about $16,000,000 appropriated but unexpended by the EMP over the last several years. The EMP is a single $19,000,000 line item in the federal budget. Bob distributed a table describing EMP funding history. Don Williams noted that OMB allocations are not necessarily based on unexpended appropriations. John Wetzel asked if there has been a freeze on new EMP (HREP construction) contracts. Don Williams

affirmed that there will be no new contracts this fiscal year. Jerry Skalak reported that expenditures for HREP work are on track this year. Ken Lubinski asked about the EMPCC reaction to the President's budget, which was based on Corps recommendations to OMB. Bob Delaney said that he didn't know the underlying reaction, but that the EMPCC just dealt with the budget reductions as presented. Don Williams said that Larry Hiipakka will report to the EMPCC on the budget preparation process.

Bob Delaney distributed a summary of LTRMP history and emphases and a letter from NCD approving the FY 96 Annual Work Plan. Bob reviewed WRDA 1986, the 1992 amendment extending the EMP, and elements of the Master Plan. Bob distributed LTRMP Operating Plan Appendix B, LTRMP Planning History. Bob recounted the development of LTRMP missions and noted that the program is executing the framers' intents, with a primary emphasis on monitoring. Tom Boland remarked that after the long history of development of the EMP, the LTRMP is on track and worth a lot of effort to keep it from falling to the vagaries of the federal budget. Tom thought that the importance of the program needs to be impressed upon the Corps.

Bob recounted the recommendations of the last science and management review committees, pointing out that all the recommendations were implemented. Bob distributed budget spreadsheets with Fiscal Years 92, 94, and 96 EMTC and field station costs, a funding comparison by Operating Plan goals, and effects of inflation on the fixed program budget without the anticipated cuts.

John Wetzel distributed for discussion purposes a package of proposed draft Analysis Team responses to the EMPCC about LTRMP budget cuts. The proposed responses addressed and considered the following:

1. No savings and slippage
2. No further LTRMP cuts in FY 98 and beyond, (or fund either the LTRMP or HREP but not both if budget cuts are as severe as projected)
3. Full funding in FY 97, await science and management reviews
4. A variety of potential cut scenarios

Ken Lubinski recommended focusing on FY 97. Don Williams thought that it would be worthwhile to spend some FY 97 funding on optimizing monitoring and reasoned re-budgeting. Bill Bertrand concurred, noting that recommendations of the science review committee could then be incorporated into the out-years budget. Tim Schlagenhaft didn't think that the second draft response (LTRMP or HREP) was acceptable. Tim supported the third draft response. Ken thought that if the LTRMP is being asked to plan for out-year cuts, the Corps should explain how it developed its CG budget allocation for EMP. Bob Delaney suggested that a good strategy would be to preserve options for FY 97, by not cutting the program too deeply and obviating later choices. Bob suggested draft response 3 for preserving future options. Tim Schlagenhaft noted that the potential $500,000 cut to the LTRMP beyond fixed cost efficiency measures amounts to about one HREP project. Tim

thought that the EMPCC should consider no further LTRMP budget cuts until the science and management reviews are complete. Bill Bertrand suggested that response 3 should be the Analysis Team's first priority for recommending to the EMPCC. Don Williams reminded the Team of the need to develop a rationale in addition to the recommendation. Dan Wilcox suggested focus on preserving the Congressionally-mandated LTRMP functions. Gordon Farabee said that elimination of savings and slippage budget assessments should be the first recommendation to the EMPCC. Jerry Skalak reminded the Team that the potential EMP-HREP program cuts would also involve cuts in Corps FTE's.

John Wetzel directed the Team's attention to the set of alternative approaches to budget reductions prepared by the EMTC. The alternative actions were listed in the information package provided to Team members:

Fixed Actions

- Action I. Reduce operational expenses-$361K
- Action II. Discontinue certain scheduled activities-$297K Potential Actions
- Action III. Apply savings and slippage equally to all program elements-$480K
- Action IV. Emphasize monitoring and CIA-$902K
- Action V. Reduce field stations (1 station-$423K, 2 stations-$804K, 3 stations $1,183K)
- Action VI. Reduce scope of LTRMP monitoring (1-$618K, 2-$1054K)
- Action VII. Eliminate CIA-$822K

Ken Barr asked if actions I and II (fixed reductions of operational expenses and scheduled activities) would result in losing the cost share for ongoing work with USGS on sediment budgets. Bob Delaney stated that it would preclude the USGS cost sharing but the data collection for the original two high priority tasks will be completed this year. Bob said there is the option to delay additional USGS sediment-related work. Walter Redmon suggested identifying specific impacts of budget cuts to support the Team's recommendations, e.g., the effect on the USGS sediment budget study. Bob Delaney, Ken Lubinski, and Steve Gutreuter all said that Actions I and II would have major dampening effects on program operations by eliminating training, severely constraining travel, eliminating equipment purchases, eliminating Corps support and some personnel, etc. Don Williams said that the Corps direct support to the program has been important, and that he will discuss this further with Bob Delaney and John Barko. Frank D'Erchia noted that Actions I and II would involve scaling back aerial photography to the LTRMP study pools only, and with the unfilled remote sensing position at EMTC other technologies for monitoring the entire system will not be applied. Bob Hrabik said that Action I involves dropping one position from the Open River field station so the option goes beyond just reducing operational cost. Team members discussed a variety of program impacts that would result from Actions I and II. Steve Gutreuter remarked that the public perception of the value of the LTRMP may be different than our own. Steve thought one of the most valuable contributions of the LTRMP will be to identify the most ecologically effective and cost efficient restoration actions, taking a system-wide,

long-term view. Steve suggested taking the message to the EMPCC, "If we don't have a good process for selecting and designing HREP projects, one could challenge continuing the current process without a scientific basis for HREP construction." Tim Schlagenhaft asked how the EMTC identified Actions I and II. Bob Delaney said that they examined measures that they could do without eliminating future program options and minimized immediate impacts to personnel. Bob Hrabik said that those actions remove virtually all opportunity for non-LTRMP monitoring work by the field stations for their states.

Team members discussed potential Action III-apply savings and slippage equally to all program elements. Norm Hildrum said that this scenario would involve losing several program positions and a reduced level of support. Steve Gutreuter said that the EMTC would have to re-engineer operations with reduced staff. Discussion ensued on identifying the program impacts of Action III, and rationale for preserving funding. John Barko and Walter Redmon thought that the LTRMP is approaching the point where predictive modeling can be developed to address important river management issues. John thought that it will be important to convince EPA and Congress on the merits of river process studies, and interchangeability of findings with other areas such as the Lower Mississippi River, Chesapeake Bay, etc.

John Wetzel opened discussion on the priority of reductions to cut $500,000 from the LTRMP annual budget. Dan Wilcox suggested that Goal 3 was intended to provide planning assistance to resource management agencies, and would be a logical target for budget reductions to preserve the research and monitoring functions. Bob Delaney noted that the EMPCC has consistently recommended a greater emphasis on Goal 3 activities when the LTRMP Annual Work Plans have been discussed. Discussion ensued about allocation of cuts between the LTRMP Operating Plan goals. Bill Bertrand cautioned against across-the-board cuts, and advised following the science review committee recommendations. The meeting adjourned for the evening at 5:15 p.m..

The Analysis Team reconvened at 8:00 a.m. on Wednesday April 24. John Wetzel recounted the previous days discussion on program budget cuts. John recommended that proposed Action items I, II, and III be provided to the EMPCC with discussion of the potential impacts. Doug Blodgett referred to the general strategy (page 18 of the information package) and asked if the Team is considering the out-years beyond FY 97. Bob Delaney said that the Corps emphasized that the out-year budgets are subject to change, and we need to focus on priority reductions surrounding the proposed FY 97 budget scenarios. Bob suggested establishing criteria to use in making budget recommendations. John Wetzel thought that proportional cuts between goals would best preserve program integrity. Frank D'Erchia said that proportional cuts would make sense pending recommendations of the science and management review committees. Jon Duyvejonck concurred. Walter Redmon said that it is important that the LTRMP remain an integrated program. Norm Hildrum said that important products (for the Corps Navigation Study and the EMP report to Congress) need to be prepared in FY 97. Significant budget cuts would severely hamper the timely completion of those products. Bill Bertrand said that the LTRMP program should be dropped in entirety if

out year funding as proposed is insufficient to keep the program sound. Walter Redmon reminded the Team that one of the intents of government "downsizing" is to reduce the number of government employees. Arguments about FTE losses may not be compelling. Rationale identifying reduced products would be more useful. Discussion ensued about the content and tone of rationale to be included along with recommendations to the EMPCC.

Bob Delaney recounted the series of Analysis Team discussion points made the previous day and today that could be considered for inclusion in a letter to the EMPCC:

- Interagency partnership program
- Time needed to redesign program to operate with reduced funding
- Program has only had full funding for 5 years
- Need to preserve options
- Strategic plan, science review, management review to be completed this calendar year
- Report to Congress in preparation
- Status and trend reports being completed this year
- Multi-year trend reports being completed this year
- Program goals are integrated
- Synergistic effects of interdisciplinary work
- Integrated with other agency activities (HREP, Nav Study, EPA, SAS, USFWS, etc.)
- Loss of critical personnel would be impossible to recover from

Bob said that these Analysis Team points of rationale could be presented, and that given these considerations, there are some budget reductions available that would preserve future options (Action items I and II), and the consequences could all be articulated in a letter to the EMPCC. Gordon Farabee and Tom Boland concurred with Bob Delaney's summarization, however, Tom said that he could not in good conscience recommend LTRMP budget cuts. Bob suggested that the Analysis Team members discuss their concerns directly with their EMPCC representatives.

Walter Redmon suggested that there is growing potential for EPA funding of LTRMP work, especially in FY 97 and FY 98. Steve Gutreuter noted that partnership is an important aspect of the program, and that major strategic issues (e.g., Gulf of Mexico hypoxia) are emerging. Bob Delaney suggested a need to articulate impacts of the budget options to the EMPCC. Bob said that the Corps asked the EMPCC for their recommendations on HREP/LTRMP funding allocation, and in turn the EMPCC has asked the Analysis Team for information on budget cuts to the LTRMP. Bill Bertrand asked if the Corps will heed the EMPCC recommendation. Don Williams thought that the Corps probably will. Bob Delaney said it is uncertain how the EMPCC will recommend budget allocation among the EMP components. Tim Schlagenhaft thought that the EMPCC probably would not specify LTRMP activities to cut, but rather would agree upon an allocation. Ken Lubinski recalled that within the LTRMP, Goals 1 and 3 have been the cushion protecting Goal 2 monitoring, and within EMP, the HREP program has been the cushion protecting the LTRMP. Discussion ensued

about visibility of the EMP to the public, political support, and the potential for outside funding.

Bob Delaney, at John Wetzel's request, recounted the rationale for preserving program options, and said that he will incorporate these ideas in a draft letter to the EMPCC. Team members proposed additional ideas for the letter. Tim Schlagenhaft suggested that the letter should mention the growing public awareness of the need for river management. Ken Barr suggested including the critical nature of LTRMP products to the Corps Navigation Study. Gordon Farabee suggested mentioning LTRMP assistance in Pool 25 water level management. Ken Lubinski said that the EMTC is serving an important role following the UMRS Environmental Summit. John Duyvejonck recommended mentioning EMTC support to the refuge system. Steve Gutreuter noted that the program is just at the point where multicomponent synthesis and predictive capability are being developed.

Tim Schlagenhaft recommended that the Analysis Team go on record as being opposed to any cuts for the LTRMP for FY 97 until further analysis from the Management and Science Review Committees are received and reviewed. John Wetzel asked the Analysis Team if this was the consensus of the group. No one spoke in opposition to this general consensus. John Wetzel then asked Bob Delaney to prepare a report to the EMPCC with that consensus, and a review of impacts to the program resulting from budget reduction scenarios developed by the Corps. John also asked that the report include an expectation that if budget reductions are mandated for the LTRMP, decisions on allocation of funds within the program will be made by the EMTC and the Analysis Team.

Bob Delaney said that the EMTC will assist the Analysis Team by preparing draft reports of various funding scenarios to accompany the Analysis Team letter to the EMPCC by the end of the following week, and a conference call could be held on May 8 at 9:00 a.m. to discuss the draft. John Wetzel said that the Analysis Team letter and supporting material should be delivered to the EMPCC by May 13. Gordon Farabee asked that field station team leaders be included in the conference call. Bob Delaney said that they will be included. Bob said that he will check with Holly Stoerker on the timing of providing Analysis Team recommendations to the EMPCC. Steve Gutreuter suggested that letters of support from EMP partner agencies might help. Following discussion, Ken and Steve Gutreuter recommended that Analysis Team members brief their EMPCC representatives prior to their next meeting. Ken Barr recommended specifying impacts at each funding level in the report. Bob Delaney agreed that impacts of the various funding scenarios will be identified, and said that the EMTC will try to structure the input document to the Analysis Team letter in that way. Tom Boland recommended that Analysis Team members try to attend the EMPCC meeting to show concern, be available to answer questions, and voice support for the LTRMP.

Tom Boland asked Analysis Team members for their input and concerns in advance of the management review committee meeting June 18-19. Gordon Farabee asked that notes from the management review committee meeting be shared with the Analysis team. Bob Delaney said that field station team leaders will be asked to participate in the management review.

Next Meeting

Bob Delaney urged scheduling the next Analysis Team meeting after the next EMPCC meeting. Team members concurred.

Chairman John Wetzel adjourned the Analysis Team meeting at 10:40 a.m.

Respectfully submitted,
Dan Wilcox

Attendance List
LTRMP Analysis Team Meeting
April 23-24, 1996
Holiday Inn, LaCrosse Wisconsin

Name	Agency, Location	Telephone Number
Bill Bertrand	Illinois DOC	309-582-5611
Doug Blodgett	Illinois NHS LTRMP Field Stn.	309-543-6000
Fred Cronin	Illinois NHS LTRMP Field Stn.	618-466-9690
Russ Gent	Iowa DNR LTRMP Field Stn.	319-872-5495
Tom Boland	Iowa DNR Bellevue	319-872-4976
Tim Schlagenhaft	Minnesota DNR Lake City	612-345-3365
Walter Popp	Minnesota DNR LTRMP Field Stn.	612-345-3331
Terry Dukerschein	Wisconsin DNR LTRMP Field Stn.	608-783-6169
John Wetzel	Wisconsin DNR LaCrosse	608-785-9994
Gordon Farabee	Missouri DOC	314-751-4115
Bob Hrabik	Missouri DOC LTRMP Field Stn.	573-243-2659
Jon Duyvejonck	USFWS Rock Island	309-793-5800
Robert Delaney	NBS EMTC	608-783-7550
Steve Gutreuter	NBS EMTC	608-783-7550
Ken Lubinski	NBS EMTC	608-783-7550
Norm Hildrum	NBS EMTC	608-783-7550
Frank D'Erchia	NBS EMTC	608-783-7550
Terry D'Erchia	NBS EMTC	608-783-7550
Tom Owens	NBS EMTC	608-783-7550
Tom Kelly	NBS EMTC	608-783-7550
Linda Ott	NBS EMTC	608-783-7550
Linda Leake	NBS EMTC	608-783-7550
Don Williams	USCOE NCD Chicago	312-886-5470
Ken Barr	USCOE Rock Island	309-794-5349
Jerry Skalak	USCOE Rock Island	309-794-5605
Charlene Carmack	USCOE Rock Island	309-794-5570
Dan Wilcox	USCOE St. Paul	612-290-5276
John Barko	USCOE WES Vicksburg MS	601-634-3654
Tom Keevin	USCOE St.Louis	314-331-8462
Rich Kuklas	Nat. Park Service MWR	402-221-3603
Walter Redmon	USEPA Chicago	312-886-6096
Dan McGuiness	MN/WI BAC	715-386-9444

LONG TERM RESOURCE MONITORING PROGRAM
ANALYSIS TEAM MEETING MINUTES
August 20-21, 1996
Bettendorf, Iowa

A meeting of the Long Term Resource Monitoring Program (LTRMP) Analysis Team convened at 1:00 p.m., August 20 at the Holiday Inn in Bettendorf, Iowa. Attending were team members and others from the states of Illinois, Iowa, Minnesota, Missouri, Wisconsin, the U.S. Fish and Wildlife Service (USFWS), the National Biological Service (NBS), the U.S. Army Corps of Engineers (Corps), the U.S Geological Survey, the U.S. Department of Agriculture, and the U.S. Environmental Protection Agency (EPA). An attendance list is attached.

Analysis Team chairman John Wetzel welcomed team members and called the meeting to order. No agenda changes were proposed. John reported that a letter sent from the Analysis Team to the EMPCC had some influence on the LTRMP budget decisions. The EMPCC and the UMRBA recommended that the 1997 LTRMP budget should not be reduced more than 10 percent below 1996 funding level.

Ken Lubinski reported that the EMPCC discussed the EMP Report to Congress in their meeting the previous week. Ken said that there was discussion about the fiscal year 1997 EMP budget. Within the HREP budget, the Corps may leave unspent more than $900,000. Three options are available; (1) gain approval from Headquarters to obligate the $900,000 in the HREP program, (2) redistribute HREP funding between Districts, and (3) provide available funds to the LTRMP for priority projects outlined in a letter sent from the EMTC to the North Central Division Commander and provided to the EMPCC.

John Wetzel asked what was provided to the EMPCC about future LTRMP budget cuts. Bob Delaney said that the EMPCC was presented with the same information as provided to the Analysis Team in the last mailing, including the cover letter and supporting budget spreadsheets.

Ken said that the Lake Chatauqua HREP upper structure failed, and that there was much discussion at the EMPCC meeting about replacement of the structure. The states have urged that the Corps use its operation and maintenance funds to replace the structure. Jerry Skalak said that an engineering firm, RUST Environment and Infrastructure Inc., has been retained to examine the causes of the structure failure.

Chairman's Report

Bob Delaney described pending legislation in Congress that would affect the EMP. The House Energy and Water Resources Bill includes about $17,500,000 for EMP, roughly $2,000,000 more than the President's proposed budget and the Senate version of the bill. Bob thought that the bill will probably not be passed before

October. UMRBA Governor's representatives and Holly Stoerker went to Washington in early August to meet with the Assistant Secretary of the Army for Civil Works H. Martin Lancaster and with Secretary of the Interior Bruce Babbit. Bob said that he also briefed Washington level Interior administrators on the EMP, and distributed his and the UMRBA EMP briefing papers to the Analysis Team. Bob noted that there has been minimal communication between the USFWS and NBS (Interior), and the Corps about the EMP. Bob thought that this lack of communication may have partially lead to the $2,000,000 funding reduction for EMP in the President's budget. Bob said that he also met with Congressman Steve Gunderson's staff in Washington at their request. Bob announced that Congressman Gunderson and Assistant Secretary Lancaster will visit the UMR on September 7. A letter has been sent from the Assistant Secretary of the Interior for Fish, Wildlife, and Parks to the Assistant Secretary of the Army, H. Martin Lancaster, requesting a meeting. Bob distributed a copy of that letter to the Analysis Team.

Bob reported that the NBS-USGS merger will occur October 1. NBS management headquarters will be moving to USGS headquarters in Reston, Virginia. The NBS will become the Biological Resources Division, one of four USGS Divisions. The overhead assessment rates will remain the same for at least FY 97, but they will undergo review in the next year. The Regional Biological Resources Division office will remain in Leetown, West Virginia, for a time but most likely there will be a transition to USGS regional office locations. Gordon Farabee asked if the Fisheries and Wildlife Cooperative Research Units will be separated out from the merger with USGS. Bob said that they will become part of the USGS. Norm Hildrum said that the co-op unit leaders will report to the Chief of the Biological Resources Division. There will be a chief biologist heading the Biological Resources Division, and three chief regional biologists (Central, Eastern, and Western).

Science and Management Review

The Science Review Committee is scheduled to meet in early November. The Management Review Committee met in mid-June. The Management Review Committee sent out a survey to over 800 persons interested in the LTRMP. The replies were to be provided to Tim Schlagenhaft (member of the Management Review Committee) by August 30. Tom Boland said that the Management Review is off and running. Jerry Skalak said that he is assisting Dudley Hanson, chair of the committee, as recording secretary. Tim said that he will provide minutes of the Management Review Committee meetings to the Analysis Team. John Wetzel asked about the schedule. Tom Boland and Tim Schlagenhaft said that they plan to complete the review this calendar year.

LTRMP Public Survey

Bob Delaney said that the LTRMP sponsored public survey is under way. Jerry Skalak said that data collection was to occur in September, and data analysis should be complete by the end of the calendar year.

Over-Target Funding Allocation

Bob Delaney said that all over-target funds have been allocated to work items agreed to by the Analysis Team. Don Williams noted that additional over-target funding (from St. Paul District for the Public Survey) would be applied to an additional over-target work item, completion of the whole-pool sediment budget study by the USGS. Jerry Skalak said that $30,000 from the Rock Island District HREP monitoring budget was applied to EMTC for completing land cover/land use classification of the Peoria Lake area on the Illinois River.

Walter Redmon mentioned that Dave Soballe of the EMTC has prepared a proposal for a joint EMTC/USGS/EPA effort to quantify sediment and nutrient delivery from tributaries to the Mississippi River. About $70,000 is available from EPA to apply to that effort. John Wetzel asked if there is a new over-target work items list. Bob Delaney said that he has not heard of further end-of-fiscal-year funds becoming available, but noted that not all FY 96 EMP HREP funds may be expended. Bob said that the EMPCC recommended that all unexpended EMP HREP funds be kept within the program, and that the EMTC provided the Corps and the EMPCC with a priority list of work items within the LTRMP for funding consideration. John Wetzel asked if other Corps funding might be available to transfer into the EMP. Don Williams thought it unlikely.

Bob Delaney reported that the EMTC has prepared an HREP informative pamphlet for Wisconsin, and offered to do so for the other states. Bill Bertrand asked what production of the pamphlet cost. Bob said that the cost was low, and done on the EMTC color copier. Jerry Skalak noted that the EMP has not been well publicized, and that he hopes that the program will gain public exposure through the EMP Report to Congress.

Ken Lubinski asked if the House version of the budget is passed and an additional $2,000,000 is available for EMP, how will those funds be allocated between the HREP and the LTRMP? Bob Delaney noted that the Analysis Team recommended no budget reduction for the LTRMP in FY 97, and the EMPCC decided on no more than a 10% cut. If the additional $2,000,000 is made available, the allocation should be decided based on another Analysis Team recommendation and by the EMPCC. John Wetzel asked that a conference call be made with Analysis Team members if additional funds become available, prior to the next EMPCC meeting. Bob said that they should know about available funding by the end of October, assuming Congress

passes a budget. Bob said that he will schedule a conference call when LTRMP funding levels are known. Jerry Skalak noted that after the upcoming EMPCC/UMRBA meeting in November, the two organizations plan to meet separately.

Corps Reorganization

Don Williams reported on Corps Divisions reorganization. The plan was to move North Central Division (NCD) Mississippi River business to a combined Upper Mississippi/Missouri River Division office in Omaha, Nebraska, and to move NCD Great Lakes business to the Ohio River Division office at Cincinnati Ohio. The House Water Resources Bill has language preserving NCD. The Division-level reorganization is on hold, and some resolution should come in October. Ken Lubinski mentioned that the UMRBA advised Corps Headquarters that retention of a designated office to administer the EMP and the Navigation Study was very important to the UMRS.

FY 97 LTRMP Budget

Tom Kelly reported on the FY 97 budget. The starting assumption is a proposed Corps of Engineers 10% overall cut, a reduction of $595,000 to $5,360,000. Tom identified previously agreed-upon cuts, and distributed budget projection spreadsheets. Gordon Farabee asked how the cuts will affect the cooperative agreements with the states for field station operations. Bob said that they had agreed earlier with the EMPCC and the Analysis Team not to reduce field monitoring capability with the proposed 10% program budget cut. Field station team leaders identified reductions in temporary help, transportation, equipment, and transportation expenditures, which would not significantly impact monitoring data collection.

Don Williams noted the need for funding Corps direct support to the LTRMP by John Barko. Bob Delaney agreed, and said that the intent, with full funding, was to support John's continued involvement. Don and Bob Delaney agreed to discuss this matter later with John Barko. Ken Lubinski and Bill Bertrand said that reduced funding for Corps direct support was negotiated earlier as part of the overall Corps recommended budget reduction. John Wetzel said that the subject was discussed last April, and was in the June 3 memorandum about program budget reductions. Norm Hildrum noted that funding for Corps direct support was included in the May 8 budget spreadsheet.

Annual Work Plan-FY 96 Accomplishments, FY 97 Changes

Steve Gutreuter said that the EMTC is being funded by the Corps Navigation Study for work on aquatic plants, fish, bathymetric surveys, and sediment sampling. The LTRMP investment in this work is to partially cover the salaries of the EMTC principal investigators. Steve anticipated no change in the level of LTRMP support to the Navigation Study. John Wetzel asked if that might affect the ongoing Navigation Study work. Ken Barr reported that considerable Navigation Study funding went to the

EMTC in FY 96, supporting many mutually-beneficial tasks. Research on the ecology of aquatic plants, sedimentation in backwaters, main channel fish trawling, larval fish sampling, bank erosion and other activities have been supported by Navigation Study funding. Ken distributed a list of Navigation Study supported activities. Ken Lubinski reported that the EMTC contracted with the Illinois State Water Survey to summarize field data and bring to closure LTRMP-supported research on navigation traffic impacts. Dan Wilcox said that the Illinois State Water Survey has yet to provide their LTRMP-funded field observation data on hydraulic disturbances produced by recreational boat traffic. Ken Lubinski noted that the recreational boating study was completed and delivered on time, however the field data were not a required product under the original agreement. John Wetzel asked if the Corps is funding EMTC coordination for the Navigation Study. Ken Barr said that some funding is being provided. Don Williams asked about completion of Goal 1 sediment studies. Steve Gutreuter said that an interim report on sediment budget studies, a completion report on the HREP Islands study, and a report on the sediment penetrometer studies are forthcoming.

Steve reported that the backwater limnology work is well along. A conceptual model document is in preparation, and a manuscript on a winter limnology study has been prepared. Steve noted that there are no funds for further work on this subject in FY 97.

Ken Lubinski reported that there are no LTRMP funds in FY 97 for further support to adaptive environmental assessment work. The AEA modeling is in progress. Further progress will depend on funding from the states or other outside sources. Don Williams asked what is being modeled. Ken said that water and sediment in Pools 2 through 8 is being modeled, and a model of Pool 8 has been developed. The models are intended as educational tools. Tim Schlagenhaft said that LTRMP Goal 3 planning support activities for AEA are important.

Ken asked about progress on aquatic habitat analysis and visualization (HAV) efforts. Dan Wilcox reported that following development of the HAV application using spatial data from the Finger Lakes HREP project area, the next step will be to expand the application to incorporate current velocity from numerical hydraulic modeling and appropriate spatial structure statistics. A TABS hydraulic model of lower Pool 8 has been completed, so velocity, depth, substrate type, and vegetation from that area will be used in an application of HAV for that area. Frank D'Erchia said that Doug Olsen of EMTC will work on further development of HAV.

Steve reported that plant studies are proceeding with Navigation Study funding. Research on the effects of flooding on fish growth has been completed. Ken Lubinski said that Yao Yin is modeling seedling development of floodplain trees. Dan Wilcox asked if a vegetation succession model is being developed for floodplain terrestrial areas. Ken said that Yao is working on a forest community model. Ken said that

Mary Craig's (St. Mary's College) work on landscape ecology will continue to completion in FY 97.

Steve said that all of the 5-year resource trend reports are in final preparation and should be completed by the end of the FY. Steve stated that the fish component annual reports and some of the other component annual reports are in publication. No major changes in Goal 2 monitoring activities are anticipated. There will be increased attention to multicomponent syntheses. John Wetzel asked if the field stations will participate in this efforts. Steve was concerned about the effects of budget reduction on the ability of the field stations to do much beyond the basic monitoring work. Don Williams asked about efforts to make monitoring more effective and cost-efficient. Steve said that there will be a major effort to optimize monitoring activities in FY 97, following recommendations of the Science and Management Review committees. Ken said that part of the strategic planning exercise is to examine monitoring alternatives. Steve said that scientists involved with the LTRMP have the greatest insights into how the monitoring work can be refined. Ken thought that monitoring alternatives should be included in the EMP Report to Congress.

Ken said that the Status and Trends draft report should be completed in October or November. Bob Delaney announced that Chuck Theiling will be hired as a term employee to assist with completing the Status and Trends and other reports. Ken indicated that Jennie Sauer has also been assigned to assist.

John Wetzel observed that the Analysis Team should be considering changing program allocation of funding and effort from monitoring toward research and toward planning support activities for management. Steve Gutreuter noted that the future is in integrated activities with other agencies. Walter Redmond suggested that monitoring should be paid for by those with routine monitoring information needs. Dan Wilcox emphasized that program balance should be maintained, with an increasing emphasis on applied research and planning support activities as the program matures. Gordon Farabee asked how we can gain funding commitments from partners. Bob Delaney said that the Management Review Committee may make recommendations on alternative funding sources for monitoring activities. A major obstacle in seeking funding support through various agencies is the diversity of funding processes and procedures, and being able to depend upon stable funding which a monitoring program requires.

Steve Gutreuter said that we need to predict future geomorphic conditions, develop predictive capabilities, and do research collaboratively with partners. Walter Redmon agreed, emphasizing a need for a diversity of partners in applied research and in planning for management, as has occurred for the Great Lakes.

Frank D'Erchia reported that Rob Tischer, U.W. LaCrosse, has conducted a detailed retrospective analysis of changes in vegetation in Pool 8, linking aerial photography to

the informal vegetation surveys. Development of the 1989 land use/land cover database will be complete by the end of the calendar year (covering Pools 4 through 26 and the Peoria Pool on the Illinois River). Aerial photos of the entire system are being taken now. Aerial photography coverage will be reduced in 1997, focusing on the monitoring pools and river reaches. Doug Olsen has developed a Unix application for examining component data. The EMTC is partially funding a remote sensing position, and recently hired Dr. Prasanna Gowda from Ohio State University.

Ken Lubinski reported on Goal 3 activities. The public survey is under way, with funding from EMP, LTRMP, NBS, EPA, and Missouri sources. Pool-scale planning support to the UMRCC will be minimal in FY 97. The fish passage study will be completed this year. Don Williams asked what assistance was provided for planning for ecosystem management. Jon Duyvejonck said that Joe Wlosinski provided assistance in planning for water level management in FY 96 and hoped that kind of technical assistance from EMTC can continue. Jon said that the UMRCC plans to include information on ecosystem management in the UMRCC companion report to Congress that Dan McGuiness of the MN/WI Boundary Area Commission is preparing. The next phase of preparing this report is a series of public meetings. A "white paper" describing the process is available. Bill Bertrand noted that Illinois and Missouri are working with St. Louis District on a Section 1135 project to seasonally change the river regulation control point for Pool 25. Dan Wilcox reported that the Water Level Management Task Force has prepared a report on water level management alternatives for Pool 8. Ken Lubinski said that work by the Illinois State Water Survey to compile sediment data for the Illinois River Basin is behind schedule but nearing completion. No further LTRMP funds will be required to complete this work in FY 97. Bob Delaney said that a progress report was due last March, and that the report should be finished and delivered by the end of the calendar year. Frank D'Erchia said that the EMTC has provided some limited GIS support to the USFWS migratory bird strategy. If further FY 97 work is done on this subject, funding will come from NBS. Ken said that the Effects of Islands study, and the Finger Lakes study have been jointly funded through the EMP-HREP program, NBS, and the LTRMP. Ken noted that we need to consider how to better integrate management applications with monitoring. Gordon Farabee asked about the status of the fish passage study. Dan Wilcox said that the report is nearing completion, and nearly all of the data analyses are done.

Norm Hildrum addressed Goal 4 activities. Three of the five people in the report publication group at EMTC are leaving. The appointment of one of the three was temporary and scheduled to expire in September. The information management plan update has been put on hold since no major changes are anticipated from the 1992 plan and the move to USGS may provide further opportunities that may be incorporated into an updated plan. With the Corps proposed budget reductions only $9,000 has been budgeted for new hardware, and $4,000 for new software in FY 97, although costs for maintenance will rise as the existing equipment ages. No new

automation tools will be acquired and there will be no serious examination of new automation technologies in FY 97 due to funding limitations. The 56KB line to Rock Island was shut down last June. NBS funded an upgrade connection to a T1 line with the DOI in Sioux Falls, South Dakota. The speed of internal network communications was increased. Monitoring databases are being maintained and provided electronically. The field stations will have greater involvement in monitoring data QA/QC through improved software. About 25 publications were produced in FY 96. A portable poster display for the LTRMP was developed and used about 24 times, at a number of conferences and public settings by the EMTC and the field stations. Monitoring data is now accessible through the EMTC home page on the Internet. Capability to download data and graph data through the home page is being developed. The digital aerial photos of the UMRS available on-line have proved to be popular. Project status reports and the River Almanac are also available on the EMTC Internet home page. In FY 96, the emphasis will be first to maintain and manage monitoring data, second to provide access to data, third to produce publications, fourth to maintain and refine existing automation tools, and fifth to update the information management plan. All Information Support Services staff will be supported partially by outside funding due to the proposed budget cuts by the Corps and continued loss of available funds due to fixed funding levels.

Frank D'Erchia said that GIS database development for spatial analyses has been very active. Many requests have been received for maps and aerial photos. The number of students available to work on requests for spatial data will decline in FY 97 due to the proposed Corps budget reductions. The Metamaker program developed by the EMTC is now available as an executable program for recording information about spatial data. Training is continuing and is well-attended by program partners. John Duyvejonck asked if a priority system has been developed to respond to requests for spatial information. Norm Hildrum said that they are being very responsive, and that UMRS states and agencies receive first priority.

John Wetzel asked the Analysis Team if they had any additional comments or questions concerning proposed changes for the FY 97 Annual Work Plan, so that EMTC would know how to proceed. None were voiced.

The Analysis Team adjourned for the evening at 5:20 p.m., and reconvened at 8:00 a.m. on Wednesday, August 21, 1996.

Next Meeting

John Wetzel announced that the next Analysis Team meeting will probably be in February 1997. An earlier conference call may be needed to discuss budget matters. John introduced the next Analysis Team Chairman, Tim Schlagenhaft of the Minnesota Department of Natural Resources.

Strategic Planning

Bob Delaney said that the FY 96 Annual Work Plan included strategic planning as a scheduled activity and each EMTC division undertook a strategic planning effort. The LTRMP Operating Plan is the basic strategic plan for the program. Bob said that the announced EMP funding reductions in FY 96 accelerated strategic planning efforts to set operating plan priorities. Each EMTC Division has prepared a brief strategic plan with statements of priorities. These division plans will need to be merged. Bob will work on a combined "vision" document that should be complete by the end of September. The document will stress priorities and approaches, and will not detail staffing or budget. Bob said that he will meet with the Corps, the MN/WI Boundary Area Commission, the EPA, the NRCS, the field stations and others in addition to revisiting the partner needs and expectations list. Bob noted that the EMTC has sponsored a joint USGS Mississippi River Basin science planning effort. This has lead to definition of priorities and technical approach. If accepted within the USGS, funding for the effort could be substantial.

Ecology Division-Strategic Planning

Steve Gutreuter said that a first priority is continued monitoring with at least three field stations and one mobile crew. Sediment and bathymetry monitoring should continue at frequencies appropriate to detect changes. A second priority should be to conduct more multi-component syntheses. Steve emphasized a need to conduct more Goal 1 applied research that will contribute directly to planning for management, such as pursuing the research needed to forecast the future geometry of the river system. This effort will require collaboration between the Corps, USGS, NRCS, and EPA. Dan Wilcox said that there is a need to forecast other aspects of the future condition of the river, including the hydrologic regime, water quality conditions, floodplain vegetation, and the abundance and distribution of fish and wildlife. Steve said that another priority is to make management and operation of monitoring efforts more routine and automated. This would free EMTC and field station scientists to do more applied research. Gordon Farabee asked about the rationale for a mobile field crew, and Bill Bertrand asked about the scientific basis for reducing the number of field stations to three. Steve replied that there are three geomorphologically and biologically distinct reaches on the UMR, and that a roving field crew could be cost-effective in reaching intermediate sites and in responding to events. John Wetzel asked if the strategic planning time frame extends beyond the year 2002. Bob Delaney said that the EMP Report to Congress preparers and the LTRMP Science Review Committee should consider options for post-EMP activities.

Tom Boland concurred with the direction of ecology aspects of the program described by Steve, and said that it corresponds with the original LTRMP program direction described in the Operating Plan. Tom went on to say that the reason that each state has a field station is not entirely based on science. Tom thought that the LTRMP

should be able to make monitoring more effective, cost-efficient, and free up staff for needed research on causal factors and options for management. Pete Redmond said that there is a need to identify needed types and quality of monitoring information, a need to look to the entire river, and a need to quantify materials mass transport and fate processes especially in regard to the Gulf of Mexico hypoxia phenomenon. Don Williams asked if application of predictive models could reduce monitoring requirements. Steve Gutreuter said that modeling could not entirely remove the need for monitoring, but that examination of the monitoring data can reveal where efficiencies can be gained.

Gordon Farabee asked if the Ecology Division strategic plan includes a priority statement about staffing. Steve said that it does not, and that staff reductions can be expected with reduced funding. Bob Delaney said that the LTRMP strategic plan does not include staffing needs. The annual work plan process and the budget will drive the staffing levels. Gordon Farabee emphasized the critical need to gain firm commitments on funding levels. Bob Delaney said that there is a need to go beyond a reactive "band-aid" approach to changes in available funding. Bob suggested that a large leap should be made in the approaches to monitoring, research, planning, and management of the UMRS and these needs should be clearly articulated in the Report to Congress. Dan Wilcox noted the need to prioritize LTRMP work in the context of information needed in planning for integrated management of the UMRS.

Management Applications and Integration Division-Strategic Planning

Ken Lubinski distributed a handout on future Division emphases. Ken said that integrating LTRMP activities with the HREP program will be a Division priority, particularly in forecasting future river conditions and HREP project needs. Ken pointed out the need for a systemic habitat needs assessment, as was recommended in the UMR Master plan. The habitat needs assessment should be tied to state, national, and international programs such as the national migratory bird program, GAP, interjurisdictional fisheries needs and others. Ken said that planning support activities such as analysis of alternatives for water level management should be emphasized. Ken stated that basin-scale research should focus on effects of tributaries on conditions within the mainstem channels and floodplains. Forecasting future geomorphology and condition of the river system will continue to be an important Division emphasis. Collaborative efforts with outside funding and creative employment will become increasingly important as budgets become strained. Ken suggested that better assessment of information needs for system management will be a continuing important emphasis. The EMTC is developing a GIS database of the UMRS basin with tributaries and watershed areas delineated. This database does not exist in other forms and will be useful in evaluating materials loading from tributaries and pool sediment budgets.

Geospatial Division-Strategic Planning

Frank D'Erchia reviewed the Geospatial Division activities and services. There are presently 16 people working in the Division at EMTC, of which only 5 are permanent LTRMP full-time staff. All LTRMP Division staff are at least partially supported by funding from outside the LTRMP budget. The remaining 11 staff are all funded by non-LTRMP programs. Frank said that they now have a mature geospatial capability, and are starting to focus on analyses, predictive capabilities, spatial extrapolations and basin-scale analyses using remote sensing techniques. Aerial photography will continue to be acquired annually, limited to the LTRMP monitoring pools and river reaches. System-wide aerial photography was acquired in 1989, 1994, 1996, and will be taken again in 1999. Future systemic aerial photography should be acquired at least once every five years. System-wide satellite imagery is being acquired, processed, and funded through the NBS GAP program. Work continues with sediment and bathymetry data processing. Frank suggested that the LaGrange Pool and Open River bathymetry should be collected as envisioned in the LTRMP Operating Plan. Work will continue on developing the GIS application for habitat analysis and visualization (HAV). Frank said that they will continue to be involved with sediment data processing because of the spatial context. Frank said that component data should continue to be georeferenced with GPS to provide spatial coordinates which allow integration with other spatial data. The Geospatial Division will continue developing special applications, assessment of new technologies, training, standard operating procedures, and production of reports.

Incoming Analysis Team chairman Tim Schlagenhaft had to leave the meeting, but with the rest of the Analysis Team, thanked John Wetzel for his two years of work as chairman.

Jerry Skalak expressed support for quantitative analysis and visualization of habitat conditions, and for further use of remote sensing. Bob Delaney reminded the Team that the Master Plan identified the need for about $10,000,000 in critical systemic GIS databases (flow velocities, sediment type and distribution, bathymetry, and land cover/use), which could be used to develop HREP assessment plans, determine systemic navigation impacts and provide greater application for resources trend data. Bob commended Frank D'Erchia for obtaining outside funding to build the EMTC GIS capability. Dan Wilcox noted that the EMTC is now well-positioned to do spatial analytical work, with sufficient spatial data now to conduct analysis and visualization of aquatic habitat conditions, incorporate ecological process models, and incorporate spatial analysis techniques from the field of landscape ecology. Dan remarked that work of this kind is at the forefront of ecological science.

Information Support Services Division-Strategic Planning

Norm Hildrum described the primary business of the Information Support Services Division:

- Day to day direction of automation activities
- Operation and maintenance of automation infrastructure
- Management of data
- Information sharing, both hard copy, and electronic
- Editorial and graphic support for reports and publications

Ken Barr asked if EMTC plans to migrate from Unix to Windows NT. Norm said that Unix will continue to work well for both analytical computations and for information sharing via networks and the internet. However, EMTC is evaluating NT servers for other automation activities.

Bob Delaney said that the Strategic Plan will be sent to the Analysis Team and should be a subject of discussion at the winter LTRMP meeting.

USGS Mississippi River Science Initiative

Ken Lubinski distributed a handout describing a USGS Mississippi River Science initiative developed by a team of EMTC, USGS and EPA scientists. Four NBS science centers submitted proposals for Mississippi River Basin work. A meeting was held with the NBS, USGS , Corps, EPA, NRCS, and other agencies in Sioux Falls to coordinate Mississippi River Basin scientific activities. USGS is interested in integrating work between its Water Resources, Mapping, Geology, and Biological Divisions, and doing work at a greater spatial scale. Two primary issues of interest are materials transport and fate with regard to the Gulf of Mexico hypoxia phenomenon, and habitat degradation. Rob Brown said that USGS funding for a large scale Mississippi River Basin science effort would cycle in FY 98. Don Williams asked if the issue of geomorphic changes on the UMRS was discussed. Rob Brown said that subject is proposed to be addressed as part of the work to quantify and forecast habitat changes.

EMP Report to Congress

Jerry Skalak distributed a handout describing activities in preparing the EMP Report to Congress (EMP-RTC). An HREP evaluation team has been formed, and met last Tuesday at the EMTC. John Barko (Corps-Waterways Experiment Station) is leading that effort. A database of information about all the HREP projects is being developed. A draft of the first two chapters of the EMP-RTC prepared by the Corps and the UMRBA has been distributed for review by the EMPCC. The first two chapters contain introduction, background, and history. This draft part of the EMP-RTC has

been posted on the Internet, available for review through the Corps Rock Island District and the EMTC home pages. The LTRMP section, health of the river, program evaluation, alternatives, and recommendations sections are being prepared. Jerry Skalak said that he is assisting Dudley Hanson (Corps-Rock Island District) with the LTRMP Management Review Committee. The EMP Public Survey will provide public perspectives for the EMP-RTC.

Gordon Farabee asked what yardsticks will be used to measure effectiveness of the LTRMP. Jerry Skalak said that the ongoing Science and Management review will address the scientific merit and cost-effectiveness of the program. John Wetzel asked what public involvement is associated with the EMP-RTC. Jerry said that scoping meetings, the quantitative public survey, and letters to agencies to gain their perspectives on HREP projects will provide considerable public input. John asked about the schedule for the EMP-RTC. Jerry Skalak and Norm Hildrum explained that the report will be timed to give Congress information for the FY 98 and future budgets. Bob Delaney recounted that the EMPCC/UMRBA discussed public involvement in the process last year, and decided that a draft EMP-RTC was needed for the public to respond to. Jerry Skalak noted that Chip Smith (formerly from the Corps Rock Island District, now Assistant Secretary for Environment and Regulatory Functions in the Corps) provided guidance on the EMP-RTC. The report should be short, concise, written in language familiar to Congress, emphasize partnering and cost sharing, and should include lessons learned. Jerry said that there will be a workshop in October to formulate alternatives for future EMP activities.

Steve Gutreuter Transfer to UMR Science Center

John Wetzel noted Steve Gutreuter's impending transfer from the EMTC to the Upper Mississippi River Science Center, and the Team recognized Steve for his excellent scientific work and service to the LTRMP.

Resource Trend Reports

Steve Gutreuter reported that the reviews are in, component specialists are incorporating comments, and the reports are expected to be done in September. The reports will then go to the publications shop, and will be provided to the Science Review Committee. Steve noted that there were over 30 reviews internal and external. Because many of the comments are conflicting, the component specialists must exercise scientific judgement when incorporating comments. The reports will be published and posted on the EMTC Internet home page as soon as possible. John Wetzel thanked Steve Gutreuter and Bob Delaney for getting the reports out on schedule.

Status and Trends Report

Ken Lubinski said that the status and trends report is still in preparation. The deadline will coincide with the EMP-RTC. Funding from EPA will assist in completing the report. Jerry Skalak and John Wetzel noted that input is needed by December this year for the draft EMP-RTC.

Farm Bill

Bill Hartman described the Environmental Quality Incentive Program that is part of the new farm bill. State technical committees will advise the NRCS and identify conservation priority areas. The midwest NRCS region covers an 8 state area, including the 5 UMRS states. Of the $200,000,000 budgeted for the Environmental Quality Incentive Program, $100,000,000 will go to the midwest region. The UMRS will probably become a national and regional priority area. Dan Wilcox asked how effectiveness of conservation measures will be measured, with respect to materials delivery to river systems. Bill said there is good understanding of the effects of management practices on "edge of the field" conditions, but that there is a need to better understand outcomes with respect to receiving waters and habitat conditions. Bill reported that the new Conservation Reserve Program (CRP) rules are due out in September. Farmers only removed about 600,000 acres from CRP during the early buy-out opportunity last spring. Of the 600,000 acres that came out, only half went back to row crops. Contracts for 24,000,000 acres are terminating this year. Congress approved a cap of $34,000,000 acres for the CRP program, and authorized the program to continue through the year 2002.

The Wildlife Incentive Program was not approved. The FY 97 Agriculture budget passed. The Farm Service Agency is overseeing the Market Transition Program, which involves decreasing payments to farmers over six years. Farmers participating must implement approved conservation plans for the highly erodible acreage on their farms. Erosion on highly erodible lands has decreased in recent years as a result of this policy and from land going into CRP. The Farmland Protection Program involves prevention of development on agricultural lands. This program is funded at $15,000,000 per year, with money going to communities to buy up development rights that would allow farmers to keep land in agricultural use, rather than selling out to developers. Bill reported that the Wetland Reserve Program rules should come out soon. This program has been funded $170,000,000 for FY 97. A cap has been set at 900,000 acres through the year 2002. About 100,000 acres are presently in wetland reserve in the midwest 8-state region. The program is implemented through permanent easements, 30-year easements, and long-term contracts. Gordon Farabee asked if non-permanent easements have been capped at $1000/acre. Bill Hartman thought that it was less, probably about $750/acre with a 30-year contract requirement.

Bill reported that agricultural interests are concerned about the blame for the Gulf hypoxia phenomenon pointing toward nitrogen runoff from midwest agricultural areas. Bill noted that nitrogen application rates have doubled in the last 30 years. Dan Wilcox remarked that incentives for reducing nitrogen application rates are becoming stronger, with cost of fertilizer rising and restrictions limiting application rates to limit groundwater contamination becoming more widespread. Bill said that the connection between nitrogen application rates and loading to rivers remains unclear. He said that with world demand for grain increasing and reserves low, he cannot envision a reduction of agricultural activity in the UMRS basin. Bill said that the about half of the Environmental Quality Incentive Program funding will go toward improved manure management. Bill reported that the NRCS is moving toward more outcome-based accountability with quantitative assessments of soil productivity, water quality, habitat conditions, etc. Pete Redmon said that the EPA is supporting considerable work on the Gulf hypoxia phenomenon, with much of the funding going toward oceanographic analyses. Bob Delaney said that a Washington-level interagency meeting on the Gulf hypoxia phenomenon decided to convene a committee of noted scientists to review the nitrogen loading-Gulf hypoxia hypothesis.

Agency Reports

Gordon Farabee announced that as of September 1, he will be serving in a new job with the Missouri DOC, but hopes to continue his participation in the Analysis Team. MDOC Director Jerry Presley will retire this fall, and a new Director will be selected. Tom Boland had no news from the Iowa DNR to report, but urged Team members to respond to the Management Review Committee survey. John Wetzel said that the Wisconsin DNR reorganization didn't affect the Mississippi River Work Unit much. Jon Duyvejonck reported that the USFWS reorganization continues, noting a need to improve communications between the field and headquarters in Washington. Jon said that Dan McGuiness of the MN-WI Boundary Area Commission is preparing a companion report to the EMP-RTC for the UMRCC. Rob Brown said that Steve Blanchard (USGS-Illinois) has moved on to another position.

Bob Delaney expressed gratitude for Steve Gutreuter's hands-on scientific leadership and tremendous work.

John Wetzel thanked team members for their participation, and the meeting adjourned at 12:30 p.m.

Respectfully submitted,

Dan Wilcox

Attendance List

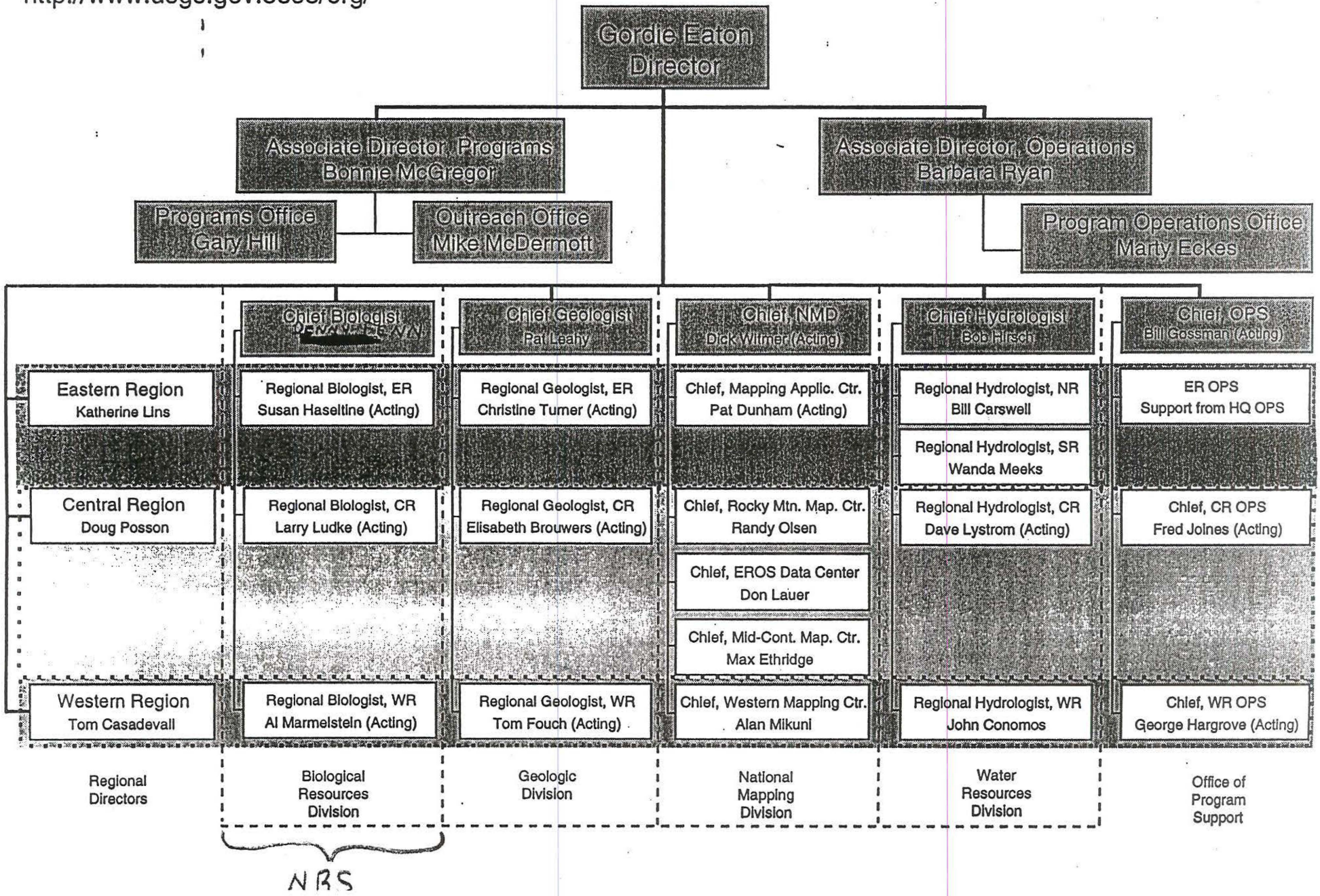
LTRMP Analysis Team Meeting
August 20, 1996
Holiday Inn
Bettendorf, Iowa

Name	Agency, Location	Telephone Number
Bill Bertrand	Illinois DOC	309-582-5611
Doug Blodgett	Illinois NHS LTRMP Field Stn.	309-543-6000
Fred Cronin	Illinois NHS LTRMP Field Stn.	618-466-9690
Russ Gent	Iowa DNR LTRMP Field Stn.	319-872-5495
Tom Boland	Iowa DNR Bellvue	319-872-4976
Tim Schlagenhaft	Minnesota DNR Lake City	612-345-3365
Terry Dukerschein	Wisconsin DNR LTRMP Field Stn.	608-783-6169
John Wetzel	Wisconsin DNR LaCrosse	608-785-9994
Gordon Farabee	Missouri DOC	314-751-4115
Bob Hrabik	Missouri DOC LTRMP Field Stn.	573-243-2659
Jon Duyvejonck	USFWS Rock Island	309-793-5800
Robert Delaney	NBS EMTC	608-783-7550
Steve Gutreuter	NBS EMTC	608-783-7550
Ken Lubinski	NBS EMTC	608-783-7550
Norm Hildrum	NBS EMTC	608-783-7550
Frank D'Erchia	NBS EMTC	608-783-7550
Tom Kelly	NBS EMTC	608-783-7550
Don Williams	USCOE NCD Chicago	312-886-5470
Ken Barr	USCOE Rock Island	309-794-5349
Jerry Skalak	USCOE Rock Island	309-794-5605
Dan Wilcox	USCOE St. Paul	612-290-5276
Walter Redmon	USEPA Chicago	312-886-6096
Rob Brown	USGS Iowa	319-358-3600
Bill Hartman	USDA Madison	608-224-3004
Richard Astrack	USCOE St. Louis	314-331-8491

USGS Organization

September 1996

http://www.usgs.gov:8888/org/



United States Department of the Interior

NATIONAL BIOLOGICAL SERVICE
Washington, DC 20240

MEMORANDUM

MAY 23 1996

To: Assistant Directors
Regional Directors
Center Directors
Administrative Officers

From: Assistant Director - Budget and Administration

Subject: Revised Assessment Rates for FY 1996

The attached directive establishes a revised assessment rate for reimbursable agreements signed on or after June 3, 1996. The rate is being decreased for regular agreements from the present 19 percent to 12 percent, and reflects both the establishment of an internal rate for the National Biological Service (14 percent), and the further administrative and overhead savings now being realized under the FY 1996 Appropriations Act signed by the President recently. The additional budget cuts in FY 1996 have the impact of reducing our planned 14 percent a further 2 percent, down to 12 percent. I believe this assessment level is below any other rate charged by Interior bureaus, and reflects our concerted effort to hold administrative and overhead costs to an absolute minimum.

The Director's policy waving all overhead for DOI bureaus remains in effect.

Attachment

C-IN-NBS-001-96
NBS CFO AUDIT
AGENDA FOR SITE VISITS

CAPITALIZED EQUIPMENT
- Latest completed inventory?
- Inventory procedures?
- Sample exists?
- Eliminate duplicate?

REAL PROPERTY
- Who owns?
- Who uses?
- How transfer?

REIMBURSEMENTS
- Agreement?
- Equipment ownership?

BUDGET
- Allocations?

PAYROLL
- Deductions correct?
- Cost accounting correct?

MAINTENANCE
- MMS - Any deferred?

HAZARDOUS WASTE
- Surveys performed?
- Any cleanup estimates?

OTHER
- Travel - Comply with CFRs?
- Procurement - Warrants current?
- Credit Cards - Training?
  - Approving signatures?
  - Receipts filed? (property)

UMRS-EMP Report to Congress
Future Program Alternatives
Compilation of Scoping Focus Group Comments

DRAFT

November 4, 1996

Comments listed in the EMP Report to Congress report on the scoping workshops were paraphrased for clarity and to eliminate duplication. Combined comments were separated when possible. The comments were organized based on "what" - alternative future program elements, and on "how" future program elements might be administered and funded.

"WHAT" - ALTERNATIVE FUTURE PROGRAM ELEMENTS
HABITAT PROJECTS

o Place more emphasis on larger-scale, more ecologically- and cost- effective projects

o Allow for land acquisition

o Acquire habitat to build core areas and corridors to provide migratory routes for wildlife

o Change policy to allow upland sediment control measures when shown to be effective for achieving floodplain habitat benefits

o Change HREP to primary emphasis on upland projects

o Change policy to promote floodplain acquisition by FWS and States

o Increase acquisition authority and funding for leveed floodplain areas

o Design projects to use natural processes where possible

"WHAT" - ALTERNATIVE FUTURE PROGRAM ELEMENTS
RESEARCH AND MONITORING

o Conduct some monitoring activities periodically, not continuously

o Expand LTRMP to conduct multi-component analyses

o Conduct sensitivity analyses to refine monitoring

o More fully implement LTRMP as described in USFWS 1986 LTRMP needs report

o Increase LTRMP wildlife studies through increased funding

o Increase spatial extent of sampling to increase accuracy of models developed at river

ENCLOSURE 3

o Develop pool-scale and systemic management plans with quantified goals and objectives

o Selection of HREP projects should be done by the EMPCC using ecosystem needs criteria, which need to be developed

"WHAT" - OTHER ALTERNATIVE FUTURE PROGRAM ELEMENTS

o Fund recreation projects on a cost-shared basis

o Establish public information and education element

o Implement recreation projects

"HOW" - PROGRAM MANAGEMENT AND FUNDING ALTERNATIVES
OVERALL PROGRAM ADMINISTRATION

o Make EMP a continuing authority program

o Fund as a continuing authority program at a variable rate depending on state of national economy

o Tie programmatically to Corps construction and O+M budget.

o Recommend that Congress establish "equal fiscal footing" for EMP with Corps expenditures for navigation

o Tie EMP funding to Corps O+M budget for 9-Foot Channel project

o Fund EMP through the Inland Waterways fuel tax

o Provide block grants to States to implement elements of EMP

o Seek Congressional authorization (superseding previous authorities) for comprehensive resource management to include the 9-Foot Channel navigation project

o Seek more cost-sharing partners, eg., navigation industry, Ducks Unlimited, Nature Conservancy

o Reformulate cost sharing for all program elements

o Base magnitude of program on cost-share contributions by states, municipalities, other organizations. Cap federal share by Corps District.

o Continue program on a cost-share basis between States and Federal government

o Continue EMP-CC as key coordination entity

"HOW" - PROGRAM MANAGEMENT AND FUNDING ALTERNATIVES HABITAT PROJECTS

o Apply the experimental approaches that have worked well in previous HREP projects

o Use innovative and experimental techniques

o Integrate with Corps programs, eg. Avoid and Minimize, Section 1135, Channel Maintenance

o Integrate with programs of other Federal and State agencies

o Combine EMP with Corps Section 1135 program

o Link LTRMP with USFWS annual budget for long-term implementation

o Tie into NRCS and State programs for watershed management

o Increase Corps Operations and Maintenance authority to manage water levels for ecological conditions as well as for navigation

o Change policies to permit innovative and experimental habitat projects

o Reserve HREP funds for "cutting edge" innovation and experimental projects

o Change policy to eliminate need to demonstrate immediate habitat project benefits, and to allow projects that may only protect or maintain present conditions

o Change policy/ provide authority to modify habitat projects after construction

o Fund wetland acquisition/restoration in watersheds through EMP along with NRCS programs

o Develop EMP cost sharing program to support upland treatment projects

o Consider alternatives for administration of HREP program to reduce costs

o Provide fixed HREP funding allocations by Corps District

o Allow more flexibility in projects, less justification based on quantifiable benefits

o Delegate authority to Corps District level for execution of future PCA's and cost sharing agreements

o Establish habitat maintenance section in each Corps District, fund through O+M budget

o End HREP program, divert funding to formal summit process to accomplish same goals

o Stop HREP program until existing projects have been thoroughly documented as success/failures and systemic habitat needs have been identified by LTRMP

o UMRBA (with EMTC technical communication assistance) to conduct system-wide planning

o Make UMRBA formal body to do river system planning

o Create an interagency co-chaired team to design and implement plans (i.e. ongoing EMP)

o Program less restricted by Corps policies, more responsive to science of large river ecology, hydrology, geomorphology

o Reinvent EMP based on needs for maintaining a healthy river ecosystem

o Expand program scope to entire watershed [basin]