

**Minutes of the
Upper Mississippi River Basin System
Environmental Management Program
Coordinating Committee**

**November 20, 2002
Fall Quarterly Meeting**

**Holiday Inn Select
Bloomington, Minnesota**

Steve Cobb of the U.S. Army Corps of Engineers called the meeting to order at 1:45 p.m. on Wednesday, November 20, 2002. Other EMP-CC members present were Charlie Wooley (USFWS), Scott Stuewe (IL DNR), Kevin Szcodronski (IA DNR), Steve Johnson (MN DNR), Gary Christoff (MO DOC), Terry Moe (WI DNR), Leslie Holland-Bartels (USGS), and Bob Goodwin (MARAD). A complete list of attendees follows the minutes.

Minutes of the August Meeting

Terry Moe moved and Scott Stuewe seconded a motion to approve the draft minutes of the August 7, 2002 meeting as written. The motion carried unanimously.

Program Management

FY 02 Wrap-Up

Roger Perk reported that the EMP expended \$16.524 million, or 98.7 percent of available funding, in FY 02. Shortly before the end of the fiscal year, the Corps transferred \$567,000 out of the program. Perk explained that this was money the EMP would not have been able to expend before the end of the year, due to delays in some of the HREPs. Factors delaying the projects included a bid protest, additional cultural work requirements, and slow construction progress. According to Perk, the Corps first looked for needs within the EMP, and was able to direct some funds to the LTRMP and one HREP. However, given the timing, there was limited ability within the habitat program and the LTRMP to expend additional funds prior to the close of the fiscal year. In addition, Perk and Steve Cobb noted that there were significant needs elsewhere within the Corps' Construction General account. As a result, the Corps elected to transfer the \$567,000 to other projects. Perk said the Corps and USGS will prepare a list of EMP work efforts than can be accomplished quickly if additional funds become available at the end of FY 03.

FY 03 Appropriations Status and Allocations

Perk reported that most federal agencies, including the Corps, are operating under a continuing resolution (CR). The current CR runs through January 11, 2003; but it is uncertain when the

final FY 03 appropriations measure will be passed. Perk acknowledged that this creates substantial uncertainty for the EMP, but said the Corps and USGS are moving forward with development of FY 03 work plans. For planning purposes, the Corps is assuming a \$14.0 million EMP appropriation, slightly above the average of the House and Senate Appropriations Committee amounts. Upon enactment of the final FY 03 spending measure, these plans will be revisited, and any necessary mid-course corrections will be made.

Districts' FY 03 Work Plans

Under a \$14.0 million EMP, the district HREP allocations would be as follows: MVP—\$2.346 million, MVR—\$3.343 million, and MVS—\$1.812 million. Roger Perk explained that the districts' FY 03 work plans prioritize on-going construction, as well as maintaining some planning, design, and monitoring in all three districts. According to Perk, each district has attempted to develop a flexible plan, including identifying efforts that could be initiated mid-year, should additional funds become available. See the attached PowerPoint slides for the details of each district's work plan.

Don Powell described MVP's work plan as rather light on planning and design, but said there is enough planning and design work to keep the program viable in the outyears. Due to a bid protest delay, construction on Ambrough Slough will not begin until spring. By the end of November, construction on Long Lake should be approximately 50 percent complete. Powell said MVP expects to award the Pool Slough contract before the end of 2002. This is a small, cost-shared project. Kevin Szcodronski recognized the National Audubon Society's contribution to Iowa's nonfederal share of the project. Powell said the district expects to complete evaluations of approximately six HREPs and initiate work on five more in FY 03.

Perk said MVR's HREP planning efforts would also be reduced substantially under a \$14.0 million EMP. He noted the importance of maintaining planning on the Smith's Creek project, which is being developed in conjunction with NRCS work in adjacent upland areas. MVR expects to complete definite project reports (DPRs) for Rice Lake and Lake Odessa and initiate design work on both projects in FY 03. The district's major focus will be on construction of the Pool 11 Islands project, which is scheduled to receive approximately \$2.0 million this year. Construction activity will also include tree planting at Gardner Division and completion of the pump station and vegetation work at Banner Marsh. While its work will be scaled back, MVR will be working in all areas of project evaluation—i.e, baseline monitoring, bioresponse monitoring, and performance evaluations.

Mike Thompson said MVS hopes to complete planning on the Schenimann Chute, Stone Dike Alterations, and Pool 25/26 projects. In addition, it will initiate planning on Establishment Chute and Salt Lake. The district's major design focus will be on Calhoun Point. The work plan calls for completing construction on Swan Lake and Batchtown Phase II. MVS will initiate evaluation work on recently completed projects, including Swan Lake.

Perk reported that the districts are also in the process of drafting scopes of work with the Fish and Wildlife Service under which Service personnel will provide HREP planning assistance in FY 03. These scopes will be based on the current work plans.

COE Budgeting Process

Steve Cobb provided background on development of the Administration's FY 03 budget request for the Corps. In crafting the FY 03 budget, OMB set a \$1.44 billion ceiling for the Corps' construction general (CG) account. OMB also directed the Corps to focus CG resources on continuing contract obligations and projects that could be completed in FY 03, and not to fund new construction starts. Cobb explained that the OMB passback was 40 percent below the amount the Corps originally requested for CG. Corps Headquarters then allocated the \$1.44 billion among its divisions based on the Administration's project-specific priorities, OMB's general guidance, and scheduling considerations. Within MVD, this resulted in a funding cut of approximately 40 percent to construction projects that were not slated for completion in FY 03, including the EMP.

While explaining that he is not at liberty to discuss specifics of the Administration's FY 04 budget request prior to its release, Cobb noted that the same fiscal constraints that shaped the FY 03 request for the Corps are likely to be factors again. He observed that the EMP is competing for limited resources with many high profile projects that have strong constituencies. Cobb said MVD will continue to express a \$33 million capability figure for the EMP in FY 04. He also said that MVD will seek opportunities to reprogram funds into the EMP during FY 03 in an effort to ease the impact of the anticipated reduction in appropriations. However, Cobb emphasized that funding is expected to be extremely tight within the Corps' CG account this year. Thus, the prospects for overtarget funding are limited.

Long Term Resource Monitoring Program

Tom Boland distributed a written A-Team report and expressed the group's concern regarding the impacts of the anticipated FY 03 budget cuts on the LTRMP.

Leslie Holland-Bartels reported that the FY 03 LTRMP work plan is being scoped based on a \$3.501 million allocation for the program. Priorities include obtaining and analyzing the data and information necessary to restructure the program and enhance its flexibility in FY 04 and beyond. In addition, the program will focus on maintaining and serving existing data and, if possible, maintaining some sort of monitoring in FY 03. Holland-Bartels expressed the UMESC staff's initial doubts that this level of funding will support meaningful data collection. However, based on input from the A-Team and EMP-CC, Holland-Bartels said USGS will try to integrate some limited monitoring into the base work plan.

Holland-Bartels described the process USGS has employed to identify the data and analyses required in FY 03 to make informed decisions about restructuring the program for future years. This includes reviewing the range of previously discussed restructuring plans and examining the sufficiency of existing data and analyses to support informed discussion of options. UMESC staff have consulted with the A-Team regarding the FY 03 effort, and will continue to do so as the work unfolds.

Regarding the potential for monitoring work in FY 03, Holland-Bartels said UMESC is currently refining Sampling Scenario A, which was discussed at the November 6-7, 2002 A-Team meeting. This scenario includes sampling in the areas of vegetation/water quality, fish, macroinvertebrates, and land cover/land use. For each of these four areas, Scenario A will

identify the minimum amount of sampling that must be done if the effort is to be scientifically credible. Given the uncertain budget situation, these will all be sampling efforts that could be initiated later in the fiscal year. She noted that the water quality component is probably the most limited in terms of being able to accomplish meaningful work in a partial year. The water quality work that is being considered under Scenario A is designed to augment the vegetation monitoring. According to Holland-Bartels, Dave Soballe and other water quality specialists advised against implementing the regular water quality protocol if it could not be done for a full year. However, there has been some discussion of doing limited water quality sampling just for the summer period. Holland-Bartels said this possibility is still under discussion.

Holland-Bartels said she would provide Roger Perk with a cost estimate for Sampling Scenario A during the first week in December. Steve Cobb said the Corps would look forward to receiving the estimate, and emphasized that he would like to avoid a year with no data collection, if at all possible.

Boland said the A-Team is quite concerned with the disruption to the monitoring program, but concurs that monitoring is simply not feasible at a \$3.501 million level. At its November meeting, the A-Team identified a series of FY 03 analysis priorities, including completing multi-year trend reports; completing a comprehensive, integrated *2003 Status and Trends Report*; analyzing trends in emergent vegetation, with a focus on different changes observed in Pools 8 and 13; and updating the Spatial Query Tool's data sets. Boland said updating the *Status and Trends* report should help inform the restructuring decisions. In addition, the A-Team placed the Scenario A elements in the following priority order should the LTRMP receive more than \$3.501 million in FY 03: vegetation/water quality, fish, macroinvertebrates, and land cover/land use. Boland expressed the A-Team's appreciation of the UMESC staff's efforts to ensure a good decision-making process during difficult times.

Boland said the A-Team was not able to discuss UMESC's proposed science planning process in November, but is anxious to do so at its next meeting. In response to a question from Gary Christoff, Holland-Bartels described the science planning process as an effort to identify three to five key science questions on the river and then break those questions down into a series of discrete research tasks. According to Holland-Bartels, one advantage of this approach would be enhanced flexibility and capacity to make good use of incremental funding.

Terry Moe asked how the FY 03 monitoring work would be staffed, should money be made available. Holland-Bartels noted that existing UMESC and field station staff are fully occupied in FY 03 with the data analysis and related tasks. Should funds be added for monitoring, temporary workers would likely be added, with the actual monitoring work accomplished by some combination of permanent and temporary staff.

Kevin Szcodronski asked about the possibility of USGS taking more ownership of the LTRMP. Holland-Bartels said that USGS faces the same types of budget constraints as the Corps. She noted that the Administration has proposed eliminating national water quality monitoring programs within USGS, and cautioned that LTRMP would likely not fare well if it was competing for funds in USGS. In response to a question from Moe, Holland-Bartels said she would have results of the restructuring analysis available for discussion at the EMP-CC's May meeting. She also reported that UMESC has requested an overhead waiver from USGS

Headquarters for FY 03, but has not yet received a response to this request. Cobb thanked Holland-Bartels for her efforts during difficult budget times.

Relationship between Navigation Study and EMP

Greg Ruff briefly described the restructured Navigation Study's focus on both navigation efficiency and ecosystem restoration. Drawing on input from this fall's series of stakeholder workshops, the Corps will draft a set of ecosystem sustainability goals and objectives. These goals and objectives will address the UMR from bluff-to-bluff. The goals and objectives will be presented to the GLC and EMP-CC for their comment and conceptual concurrence in February 2003. Ruff said the groups will be asked for feedback on how the goals and objectives fit together on a system level, but will not be asked to endorse site-specific recommendations.

The Corps' next step will be to identify specific management measures that address those objectives that fall within the purview of the restructured Navigation Study. These management measures may include features that would be implemented within the existing EMP or an expanded program. A final array of specific management measures will be released in June 2003. Alternative packages of measures will then be evaluated across a range of future scenarios. Ruff emphasized that the Corps will seek EMP-CC members' input and concurrence concerning EMP-related measures.

Ruff reviewed the Navigation Study's pending schedule and major milestones. He observed that the EMP RTC process will be unfolding concurrently with the Navigation Study, though the RTC is scheduled to be completed earlier. He assured EMP-CC members that the Corps' RTC and Navigation Study staff will continue to work cooperatively to ensure that the two efforts are properly coordinated.

Terry Moe emphasized the importance of a strong RTC that clearly describes the EMP is a key implementation tool for any navigation-related recommendations that may follow. Gary Christoff said he anticipates a package of recommendations coming out of the Navigation Study that will include navigation infrastructure improvements; mitigation that will be cost-shared by industry; 100 percent federally funded efforts to address some impacts from O&M of the navigation system; and ecosystem restoration measures, which may include efforts to address impacts on tributaries. Christoff observed that such a package would include a mixture of funding sources. Steve Cobb said he expects that the Navigation Study will recommend a multi-purpose program authority that address the range of economic and ecosystem sustainability needs. One question will be whether and how the EMP should be included in such an authority. Christoff urged the program partners to consider whether the EMP should continue as a separate authority.

Kevin Szcodronski stressed the need to think about how the Fish and Wildlife Service, USGS, EPA, and states might relate to the type of approach described by Cobb. He noted that the states currently have very little capacity to cost-share ecosystem measures on the UMR. Cobb said the Navigation Study will examine other agencies' programs and consider crosscut budgeting opportunities.

Given that the Navigation Study, with its broad focus, will still be pending when the RTC is completed, Szcodronski expressed doubt that Congress would consider acting on any RTC recommendations. Ruff concurred that this could be an issue. Roger Perk briefly recounted the EMP-CC's previous consideration of this dilemma. After some further discussion, the EMP-CC members confirmed their previous conclusion that the RTC effort should maintain its own schedule independent of the Navigation Study and provide the required progress report to Congress in a timely fashion. The RTC will focus its conclusions and recommendations on the program as it currently exists and will not attempt to address additional proposals for change to the EMP that may emerge from the Navigation Study. However, the RTC will explicitly recognize that the pending Navigation Study feasibility report may include recommendations that would affect the EMP. In response to a comment from Holly Stoerker, Ruff said he anticipates more clarity regarding management measures that may involve the EMP by June 2003.

Report to Congress

Roger Perk provided a brief overview of the EMP RTC schedule and progress. He reported that the August workshop participants had forwarded five issues/themes for consideration by the EMP-CC at today's meeting.

Land Acquisition

Steve Johnson took issue with the workshop summary's suggestion that factors other than Corps policy appear to have limited acquisition projects since 1994. According to Johnson, Corps staff have said policy would preclude them from crediting Minnesota for land acquired prior to execution of a project cooperation agreement (PCA) for a Zumbro River project. Roger Perk acknowledged that staff may have interpreted the relevant policy too narrowly, but said policy *per se* does not preclude crediting the nonfederal sponsor for land acquired prior to execution of the PCA. Holly Stoerker suggested that the RTC could relate how lack of clarity regarding policy may have limited us unnecessarily, without suggesting that a change in policy is needed. Johnson concurred.

Perk noted that the workshop participants discussed two possible limitations on acquisition projects—one of which is a general Corps policy on ecosystem restoration that limits acquisition to 25 percent of project costs and the other of which was an element of the 1994 EMP land acquisition policy that limited acquisition to no more than 10 percent of total HREP funding through 2002. In both instances, there is some uncertainty regarding the policy's current applicability to HREPs, though Perk said he believes there is a strong case to be made that neither should limit the EMP habitat program at this point. He noted that the 10 percent limit was a policy established by the old North Central Division. The 25 percent limit applies to projects under the Corps' continuing authorities programs. In contrast, the EMP is a multi-project program, and thus presumably should not be restricted by such single project limits. Perk advised against seeking Headquarters' clarification on these policies in the abstract. Rather, he suggested pursuing specific projects and seeking clarification, if needed, in the context of those specific proposal. Rich Worthington said the EMP is fundamentally a restoration program. As such, securing real estate interests may be necessary to meet a project's restoration goals; but acquisition should not be the primary purpose of a project. Worthington said real estate costs above 25 percent might serve as something of a red flag at

Headquarters, triggering review of how the acquisition is tied to the project's restoration goal(s). However, Worthington said he could envision sound HREPs in which acquisition costs might exceed 25 percent of total project costs. He concurred with Perk's recommendation against seeking a general policy clarification, noting that policy determinations are typically best made in the context of a specific fact set.

Steve Cobb questioned whether there was any need to address land acquisition in the RTC, if the partners are not seeking any action by the Administration or Congress. Stoerker observed that ambiguities surrounding land acquisition have been a long-standing impediment for the EMP. She said the value in addressing acquisition in the RTC would be to document the partnership's collective understanding of the issue and vision of how acquisition might fit into the future HREP program. Cobb said that he would not object to such an approach, but cautioned against raising any policy questions. He said the true test of the policy will come when a program partner chooses to pursue a project involving a significant acquisition component. After some further discussion, EMP-CC members concurred that the RTC should state the partnership's understanding of the current situation and policy, should not seek any policy clarifications, and should express the expectation that acquisition will be a viable part of the program in the future.

NGOs as Cost-Share Partners

Perk reported that the August workshop participants favored modifying the EMP authorizing language to allow NGOs to serve directly as cost-share partners for HREPs. The participants' recommendation included the following caveats and assumptions:

- Public access would be required.
- Approval of local and/or state government would be required.
- NGOs would be held to the same requirements as other nonfederal sponsors, such as O&M responsibilities and confirmation of financing capacity.
- The membership of EMP coordinating bodies, such as the EMP-CC, would not change as a result of allowing NGOs to sponsor projects.

Barb Naramore suggested modifying the public access provision, noting that the objective is to ensure that the EMP does not support improvements to private lands for exclusive use, such as waterfowl hunting clubs. Rather than require public access on all HREP lands, which could interfere with legitimate resource management practices, she suggested prohibiting special access privileges—i.e., no special group could have access that is denied to the general public. EMP-CC members endorsed the workshop participants' recommendations regarding NGOs as cost-share partners, with the modification suggested by Naramore.

Rehabilitation of HREPs

Perk explained that the workshop participants concluded there is no need for the RTC to recommend changes regarding HREP rehabilitation. While the RTC need not address the

issue, workshop participants did summarize their common understanding and assumptions regarding HREP rehabilitation. In summary, these include the following:

- Rehabilitation is remedial work in response to storm damage and does not include modifications to address design deficiencies.
- The Corps will make decisions regarding HREP rehabilitation a case-by-case basis, in consultation with the project sponsor.
- Rehabilitation will typically take precedence over new construction. However, the EMP-CC will be consulted regarding priorities if a major storm event results in substantial rehabilitation needs throughout the system.
- Rehabilitation funding responsibilities will be determined as follows:
 - For cost-shared projects, mutually agreed upon rehabilitation will be cost-shared under the same terms as the original construction
 - For refuge projects, mutually agreed upon rehabilitation will be 100 percent federally funded. This will be from Corps HREP funding, unless emergency federal flood recovery funds are available from another source.
 - If PCAs or LCAs executed prior to the current model PCA define rehabilitation responsibilities differently from the above, those agreements will be honored.

Perk said the Corps has determined that MVD will issue guidance establishing the rehabilitation policies outlined in the summary above. Charlie Wooley said the Fish and Wildlife Service is comfortable with the proposed approach for rehabilitating refuge projects—i.e., using flood recovery funds to the extent possible and relying on the EMP for any rehabilitation needs that cannot be covered by emergency funds. The EMP-CC members all concurred with the approach endorsed by the August workshop participants. They also expressed support for MVD’s plan to issue guidance that articulates these policies.

LTRMP Funding Mechanism

Perk reported that the workshop participants eliminated several options outlined in the LTRMP funding mechanism paper from further consideration. However, they requested additional information concerning two options:

- obtaining a waiver of the USGS’s indirect cost assessment against the LTRMP, and
- using SF-1151 to transfer LTRMP funds from the Corps to USGS.

Perk said the Corps is still exploring the potential for using SF-1151. According to Perk, indications are that USGS is unlikely to waive its indirect cost assessment. Holland-Bartels elaborated, saying that she will continue to work to minimize the cost assessment, but that a complete waiver is unrealistic. At Perk’s suggestion, EMP-CC members agreed to defer further consideration of the funding transfer issue until more definitive information is available concerning the SF-1151. The group also agreed with Holland-Bartels’ recommendation not to pursue the waiver option any further.

Developing the Full Potential of the LTRMP for Adaptive Management

Perk described the workshop participants' recommendation that the RTC emphasize the LTRMP's value for adaptive management. In particular, they suggested that this theme be reflected in the report's conclusions section by emphasizing the LTRMP's potential to help meet the information needs of future adaptive management efforts. While the RTC should acknowledge the ways in which funding constraints have limited the LTRMP's contributions to adaptive management to-date, the workshop participants cautioned that the report should not imply that the LTRMP has not fulfilled its Congressionally authorize purposes. EMP-CC members concurred that the theme should be reflected in the RTC, and further agreed with the workshop participants' observations concerning it.

Other Business

Leslie Holland-Bartels announced that UMESC has released a technical report describing the evaluation and restructuring of the fisheries monitoring component. She said this report should meet the program partners' request for a summary of the analyses and the basis for the restructuring decision. Also of interest, UMESC has issued a report identifying research needs in the area of sediment transport and deposition. The research recommendations stem from an August 2000 workshop.

Barb Naramore announced that the quarterly meeting schedule includes meetings on February 25-27, 2003 in Rock Island; May 13-15, 2003 in St. Louis; and August 5-7, 2003 in the Twin Cities. EMP-CC business meetings will take place on either the second or third day of each meeting cycle. If needed, any special meetings related to the Report to Congress will be held on the third day.

With no further business, the meeting adjourned at 5:17 p.m.

**EMP-CC Attendance List
November 20, 2002**

Steve Cobb	U.S. Army Corps of Engineers, MVD
Charlie Wooley	U.S. Fish and Wildlife Service, Region 3
Leslie Holland-Bartels	U.S. Geological Survey, UMESC
Scott Stuewe	Illinois Department of Natural Resources
Kevin Szcodronski	Iowa Department of Natural Resources
Steve Johnson	Minnesota Department of Natural Resources
Gary Christoff	Missouri Department of Conservation
Terry Moe	Wisconsin Department of Natural Resources
Rich Worthington	U.S. Army Corps of Engineers, HQ
Greg Ruff	U.S. Army Corps of Engineers, MVD
Don Powell	U.S. Army Corps of Engineers, MVP
Thomas Novak	U.S. Army Corps of Engineers, MVP
Gary Loss	U.S. Army Corps of Engineers, MVR
Roger Perk	U.S. Army Corps of Engineers, MVR
Jan Hodges	U.S. Army Corps of Engineers, MVR
Jerry Skalak	U.S. Army Corps of Engineers, MVR
Shirley Johnson	U.S. Army Corps of Engineers, MVR
Mark Cornish	U.S. Army Corps of Engineers, MVR
Deb Foley	U.S. Army Corps of Engineers, MVS
Mike Thompson	U.S. Army Corps of Engineers, MVS
Brian Markert	U.S. Army Corps of Engineers, MVS
Gary Lee	U.S. Army Corps of Engineers, MVS
Dawayne Sanders	U.S. Army Corps of Engineers, MVS
Tim Yager	U.S. Fish and Wildlife Service, Region 3
Jon Kaufield	U.S. Fish and Wildlife Service, Region 3
Don Hultman	U.S. Fish and Wildlife Service, UMR Refuge
Tom Boland	Iowa Department of Natural Resources
Amy Denz	Minnesota Department of Natural Resources
Walt Popp	Minnesota Department of Natural Resources
Mike Wells	Missouri Department of Natural Resources
John Sullivan	Wisconsin Department of Natural Resources
Bob Goodwin	Maritime Administration
Bill Franz	U.S. Environmental Protection Agency, Region 5
Larry Shepard	U.S. Environmental Protection Agency, Region 7
Dan McGuinness	National Audubon Society
Dudley Hanson	Private Citizen
Jim Harrison	Private Citizen
Holly Stoerker	Upper Mississippi River Basin Association
Barb Naramore	Upper Mississippi River Basin Association

ST. PAUL DISTRICT (MVP)
(\$000's)

FY03 HREP ALLOCATION = \$2,346

MANAGEMENT (\$100)

PLANNING (\$105)

- Capoli Slough
- Spring Lake Islands
- Harpers Slough
- Long Meadow Lake

DESIGN (\$142)

- Long Meadow Lake
- Pool Slough
- Spring Lake Islands
- Pool 8 Isl. Phase III

CONSTRUCTION (\$1,903)

- Ambrough Slough
- Long Lake
- Pool Slough

EVALUATION (\$96)

- Performance Evaluations
- USFWS Coord

ROCK ISLAND DISTRICT (MVR)
(\$000's)

FY03 HREP ALLOCATION = \$3,343

MANAGEMENT (\$150)

PLANNING (\$345)

- Rice Lake
- Lake Odessa
- Pool 12 Overwintering
- Smiths' Creek

DESIGN (\$130)

- Rice Lake
- Lake Odessa

CONSTRUCTION (\$2,413)

- Gardner Div.
- Banner Marsh
- Pool 11 Islands

EVALUATION (\$305)

- Baseline Monitoring
- Bioresponse Monitoring
- Performance Evaluations
- FWS

ST. LOUIS DISTRICT (MVS)

(\$000's)

FY03 HREP ALLOCATION = \$1,812

MANAGEMENT (\$150)

PLANNING (\$450)

- Stone Dike Alt.
- Salt Lake/Ft. Chart SC
- Pool 25/26
- Establishment Chute
- Schenimann Chute

DESIGN (\$340)

- Batchtown Phase III
- Calhoun Point

CONSTRUCTION (\$627)

- Batchtown Phase II
- Swan Lake

EVALUATION (\$245)

- Baseline Monitoring
- Bioresponse Monitoring
- Performance Evaluations
- FWS