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MEMORANDUM

TO: Council Members

FROM: James Ruff, Manager, Mainstem Passage and River Operations

SUBJECT: Overview of the Corps of Engineers' Columbia River Fish Mitigation Project

At the July 11-12, 2006, Council meeting in Missoula, Montana, I will provide the Council with a brief overview of the Corps of Engineers' (Corps) Columbia River Fish Mitigation (CRFM) Project. As part of this briefing, I will describe the overall purpose and authority of the CRFM Project, as well as relevant background information. This briefing will also identify the primary focus of the CRFM Project, as well as review recent annual expenditures and Bonneville repayment obligations associated with the CRFM Project. For example, it is estimated the Corps will spend about \$85 million in FY 2006 on CRFM projects, while the President's proposed FY 2007 CRFM budget is \$95 million. Recently, the House Appropriations Committee mark-up of the Corps' CRFM budget for FY 2007 was \$85 million. We won't know the status of the Senate Appropriations Committee mark-up for some time.

In addition, both the FY 2006 program highlights and the major fish passage projects and research proposed for FY 2007 will be reviewed. Finally, I will describe the System Configuration Team's process and schedule to establish CRFM Project priorities for FY 2007.

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Overview of the Corps of Engineers' Columbia River Fish Mitigation Project

July 12, 2006
Council Meeting
Missoula, MT

Columbia River Fish Mitigation (CRFM) Project

- Purpose: Mitigate impacts to anadromous fish passage at mainstem federal Columbia & Snake river dams
- Authority: Corps' original Congressional dam construction and operation authorities
- CRFM Project initiated in 1991
- Funding source: Congressional appropriations to Corps
- Estimated total projected cost thru completion (2014) is \$1.6 Billion

Columbia River Fish Mitigation (CRFM) Project

- Primary focus is fish passage facility configuration and operations at mainstem Corps dams, including related biological studies under AFEP
 - Evaluate project fish passage and survival
 - Identify/develop/construct fish passage improvements
 - Seek cost-effective passage alternatives
 - Implement NMFS and USFWS biological opinions, plus 2003 Mainstem Amendments to Council's Fish and Wildlife Program
 - Provide for coordination within Regional Forum
 - » Biological/technical review and input (AFEP/FFDRWGs)
 - » Establish implementation priorities (SCT)



Federal Columbia River Power System

Columbia River Fish Mitigation (CRFM) Project

- BPA repays “power share” of construction and O&M costs
- Annual expenditures have averaged about \$80 million
- FY 2006 expenditure estimated to be \$85 million
- President’s FY 2007 budget was \$95 million
- House Appropriations Bill recommends \$85 million for FY 2007
- Senate Appropriations Committee recommends \$83 million for FY 2007

Columbia River Fish Mitigation (CRFM) Project

- 2006 Program Highlights:
 - Fish passage research at all projects
 - RSW construction at Lower Monumental Dam
 - Initiate RSW design for Little Goose Dam
 - Surface bypass/configuration evaluations at John Day, McNary and Little Goose dams
 - BON-II corner collector PIT-tag detector
 - Initiate BON-II FGE improvements
 - Estuary habitat and post-BON survival studies

Columbia River Fish Mitigation (CRFM) Project

- Proposed Major 2007 Projects:
 - Continuing fish passage research at most projects
 - Post-construction RSW testing at IHR and LMN
 - RSW design work at Little Goose Dam
 - Surface bypass/configuration studies at JDA and MCN
 - Continue BON-II FGE improvements
 - Studies to improve BON-II corner collector efficiency
 - Spillway survival studies at BON and TDA
 - Estuary habitat restoration & post-BON survival studies
 - Turbine passage/survival studies
 - Improvements in survival study & tag methodologies
 - Predation studies and deterrents

Council's Mainstem Amendments

- Council's Mainstem Amendments identify the need for the following types of studies/actions:
 - Determine the relationship between fish survival and spill/turbine operations
 - Evaluations leading to implementation of surface passage technologies at mainstem dams
 - Evaluate and document impacts of predation on salmon
 - Actions to improve juvenile & adult fish passage
 - Evaluate other key uncertainties, e.g., SR fall Chinook transport/in-river study & post-BON survival
 - Actions to improve mainstem habitat conditions, e.g., studies of estuary habitat restoration actions

CRFM Projects Consistent with Council's Mainstem Amendments?

- Conclusion: Overall suite of proposed FY07 CRFM projects appear consistent with the Mainstem Amendments
- Staff is evaluating possible duplication of Corps-funded actions with BPA-funded actions in Mainstem/Systemwide group of projects
- Given the tight budget for the F&WL Program, it may be possible that Corps program could assume some of current direct-funded projects

SCT Process to Establish FY07 CRFM Project Priorities-1

- In spring 2006 SCT met to review projects and revise criteria & guidelines for FY07 CRFM Project priority-setting process
- Preliminary rankings developed for FY07 Corps-funded research projects on June 29 -- staff will identify and resolve any redundancies with BPA-funded projects
- Federal and state/tribal caucuses are meeting on July 12-13 to develop preliminary project rankings
- SCT will meet in July and August to review, discuss and reconcile preliminary project rankings

SCT Process to Establish FY07 CRFM Project Priorities-2

- SCT will then prepare a ranked list (from high to low priority) of CRFM projects with associated budgets
- Late in Fall 2006, Congress will appropriate funds for FY07 CRFM Program
- SCT will meet to reconcile FY07 CRFM budget and ranked list of CRFM projects
- FY07 is expected to be a transition year, i.e., mostly passage research and engineering studies to determine major future implementation efforts at Corps dams

Summary of 2004 ISRP Review of AFEP Research Projects

- Last ISRP review of Corps' AFEP research projects (part of CRFM) occurred in 2004
- ISRP review found that the AFEP:
 - Was effective in using short-term results for both policy decisions and planning new work;
 - Was in need of strategic multi-year research plans;
 - Could benefit from a regular and timely independent scientific review of proposals.

ISRP Review of CRFM Projects

- Staff is now working with the Corps to identify opportunities for, and scheduling of, ISRP review of CRFM projects
- ISRP review would focus on scientific review of major studies or areas of study to help guide future CRFM implementation efforts

Potential CRFM Projects for Future ISRP Review

- Snake River fall Chinook in-river/transport study design
- Surface bypass study designs
- Specific passage/survival study designs, e.g., spillway and turbine studies
- Post-BON survival & estuary study designs
- Improvements in survival study and tag methodologies

Action Items and Next Steps

- Council discussion today on CRFM areas of interest/concern for preliminary ranking process
- Staff will identify and sort out areas of overlap between CRFM and BPA-funded projects
- Panel discussion at August meeting to present:
 - Revised criteria and guidelines for ranking process
 - SCT's prelim. ranking of FY 2007 CRFM projects
 - Follow-up on identifying potential CRFM projects for future ISRP review and scheduling for that review