

Meeting Notes
NORTH DELTA IMPROVEMENTS GROUP MEETING
Wednesday, October 19, 2005
1:30-3:30 p.m. at Jones & Stokes (2600 V Street)

ATTENDANCE LIST:

Burkholder, Brad	California Department of Fish and Game (DFG)
Crouch, Craig	Sacramento County Water Agency
Eaton, Mike	The Nature Conservancy (TNC)
Elliott, Chris	Jones & Stokes
Eusuff, Zaffar	California Department of Water Resources (DWR), North Delta
Fiack, Linda	Delta Protection Commission (DPC)
Hadl, Stefan	KCRA-TV
Hoppe, Walt	Point Pleasant
Knittweis, Gwen	DWR, North Delta
Kreinberg, Grant	Sacramento Area Flood Control Agency
Kwan, Jonathan	California Department of Health Services – Vector Borne Disease Section
Labrie, Gil	DCC Engineering
Martin, Sara	Jones & Stokes
Mello, Steve	Reclamation District 563
Mraz, Dave	DWR
Odell, Rob	Northwest Hydraulic Consultants
Orcutt, Bob	DFG
Ray, Dan	DWR, North Delta
Smith, Jim	East Bay Municipal Utility District
Toor, Surjit	Natural Resources Conservation Service
Trieu, Don	MBK Engineers
Van Loben Sels, Topper	North Delta Water Agency and DPC
Vink, Erik	Trust for Public Land
Whitener, Keith	TNC

HANDOUTS

- Meeting Agenda
- Meeting Notes from the May 18, 2005 meeting
- North Delta Historical Flood Damages Cost Summary
- Comparison of FEMA's and Corps' Flood Damage Analysis Models: Data Inputs and Model Outputs

ACTION ITEMS

Action Items are notated with an "AI" in the margins of the notes and italicized text.

1. INTRODUCTIONS – Gwen Knittweis, DWR

Gwen Knittweis welcomed everyone to the meeting, explaining that since this is the first NDIG meeting since May, and since there has been some Hydraulic Modeling Coordination Team (HMCT) action in the interim, the agenda would be pretty meaty. She then facilitated a round of introductions, and introduced DWR North Delta's two new staff members. Their new environmental scientist is Dan Ray. The position had previously been held by Collette Zemitis, who departed to take a position with CalTrans in Bishop. Dan Ray has a wealth of experience on big projects around the country, as well as with CALFED. He is well suited to help bridge conversations between CALFED and the project team, and is a welcome addition to the team. Their new staff engineer is Zaffar Eusuff, who is a P.E. and has a Ph.D. in hydraulics and hydrology . He

formerly worked at CH2M Hill, and is another valuable and welcome addition to the team.

Ms. Knittweis then asked for any comments on the previous NDIG meeting's minutes. None were offered. Ms. Knittweis said she would accept comments via e-mail over the next week.

2. EIR DIRECTION AND SOUTH SACRAMENTO COUNTY DISCUSSIONS – Dave Mraz, DWR

Ms. Knittweis introduced the North Delta team's new Principal Engineer, Dave Mraz, who is currently acting for Curt Schmutte. Mr. Mraz thanked Ms. Knittweis for the introduction, and told the group he feels she has done a great job bringing together the different interests involved in this project.

South Sacramento County Planning Workshop

Mr. Mraz informed the group that DWR North Delta staff met with Sacramento County representatives to make a final decision regarding whether or not the North Delta EIR would include analysis of the County's "11F" alternative. The alternative will not be included in the North Delta EIR, as it does not specifically address the needs of the North Delta project. However, DWR has undertaken a process to help the County develop a flood control/ecosystem restoration/land development plan.

Before the NDIG meeting, DWR and the county held a workshop with stakeholders to talk about how to address flooding issues in the Point Pleasant area. Mr. Mraz felt the meeting was very productive, and the next one is tentatively scheduled for November 15.

Mr. Hoppe asked if the effects of Alternative 11F would be modeled with the North Delta hydraulic model to understand its contribution to cumulative effects. Ms. Knittweis said that the project team would look at the County's planning effort in a month or so to see if 11F meets the definition of a "reasonably foreseeable project". Mr. Crouch pointed out that as of today, 11F is the County's proposed solution, but gave the caveat that there is as of yet no implementation plan or schedule.

^{A11} *Chris Elliott offered to research the threshold for a project being "reasonably foreseeable".*

Mr. Crouch suggested that it might just be better to run 11F through the model and analyze its cumulative effects rather than be forced to detail political reasons as to why it wasn't modeled. Ms. Knittweis acknowledged the advice, saying she understands that there are a lot of stakeholders interested in seeing the downstream effects of 11F. *DWR will soon have an internal HEC-RAS model through which Mr. Eusuff would be able to run 11F.* Mr. Elliott agreed, pointing out that the purpose of stakeholder meetings such as this one is to get stakeholder concerns out on the table ahead of time, as opposed to responding to comments once the draft EIR has been written. In this case, it is clear that stakeholders would like to see figures and data relating to the cumulative effects of the project and 11F in the EIR.

Phased Project Document

Ms. Knittweis summarized the project phasing plan, which has been discussed during the previous two NDIG meetings. The project is being looked at in phases to allow for maximum flexibility, both for funding purposes as well as adaptive management reasons. The term "phasing" implies a time sequence, but these elements are really independent of each other. They are as follows:

Phase 1

- Ecosystem restoration options on McCormack-Williamson Tract
- Grizzly Slough restoration
- Dredging on Mokelumne River
- Potential relocation of the New Hope Marina

Phase 2

- Staten Island flood control options
- Maximized dredging and levee-raising

3. BENEFIT/COST ANALYSIS FOR NORTH DELTA – Gwen Knittweis, DWR

Ms. Knittweis began a PowerPoint presentation that described some rough benefit/cost estimates for the project.

McCormack-Williamson Tract Improvements

According to the hydraulic modeling results, project modifications to McCormack-Williamson Tract, which would include degrading the east levee from 18.5' to 8.5', degrading the southwest levees from 16' to 5.5' or -2.5', constructing wildlife friendly levees using borrow from Grizzly Slough and raising downstream levees 1"-2", would have the following flood control benefits when modeled with the 1997 hydrology against the no failures case:

- Surge Reduction
- New Hope: 0.2' Stage Reduction
- Benson's Ferry: 2.5' Stage Reduction

This equates to a significant flood hazard reduction. Ecosystem restoration benefits include the creation of 2,100 acres of additional habitat. To determine a rough benefit/cost estimate, DWR staff then assigned monetary value to each of those benefits. The monetary value of flood hazard reduction were expressed in the avoidance of 50 years worth of historic flood damage costs in the area adjusted for inflation (this process is described in the handout "North Delta Area Historical Flood Damage Costs Summary"). The monetary value of acres of restored habitat were calculated by looking at other restoration projects to see how much the Corps and the Fish and Wildlife Service were willing to pay for similar restoration activities. The average amount spent per acre for restored habitat was considered to be the worth of each acre of restored habitat. Using those calculations, DWR came up with \$38-\$91 million in combined benefit (\$25- \$34 million in flood control benefits and \$13- \$57 million in ecosystem restoration benefits).

Initial project cost estimates for McCormack-Williamson Tract upgrades show a cost of roughly \$19-\$30 million in combined cost (\$14-\$25 million in flood control costs and \$5 million in ecosystem restoration costs).

This equates to a rough combined benefit/cost ratio of 1.25- 13.3 (flood control ratio range: 1-2.5 and ecosystem restoration ratio range: 2.7-12.1).

Staten Island/Lower Mokelumne River Improvements

According to the hydraulic modeling results, project modifications to Staten Island and the Lower Mokelumne River, which would include degrading and setting back levees, construction of a detention basin and cross levees, installation of a drainage pump, protection of the County road and farmsteads, and South Fork Mokelumne dredging, would have the following flood control benefits when modeled with the 1997 hydrology against the no failures case:

- New Hope: 0.6-1.1' Stage Reduction
- Benson's Ferry: 0.2-0.8' Stage Reduction (translates to 0.1-.02' at Glanville)

This equates to a moderate flood hazard reduction. Ecosystem restoration benefits include the creation of 60 acres of additional habitat. The process for determining a rough benefit/cost ratio for modifications to Staten Island and the Lower Mokelumne River are the same as described above for McCormack-Williamson Tract. Using those calculations, DWR came up with \$11.4-\$15.6 million in combined benefit (\$11-\$14 million in flood control benefits and \$0.4-\$1.6 million in ecosystem restoration benefits).

Initial project cost estimates for Staten Island/Lower Mokelumne River upgrades show a cost of roughly \$70-\$100+ million in combined cost (\$70- \$100+ million in flood control costs and \$0.4 million in ecosystem restoration costs).

This equates to a rough combined benefit/cost ratio of 0.1-0.2 (flood control ratio range: 0.1-0.2 and ecosystem restoration ratio range: 1-4).

Conclusions

For a project to be viable, its benefit/cost ratio must be greater than 1. Improvements to McCormack-Williamson Tract clearly exceed a benefit/cost ratio of 1. However, the proposed improvements to Staten Island and the Lower Mokelumne River do not approach a ratio of 1 per this rough analysis. Combining the costs and benefits of both McCormack-Williamson improvements and modifications to Staten Island/Lower Mokelumne River still leaves the overall project with a benefit/cost ratio of 0.7. DWR will complete a more refined benefit/cost analysis, but the rough analysis indicates we may be challenged to show an acceptable benefit/cost ratio for Staten options.

DWR is still strategizing about how to calculate the costs and benefits of the dredging alternative, and are looking into pulling in different types of benefits, like water supply.

Discussion

Steve Mello pointed out that dredging could be easier than we may think, as Delta dredge spoils are turning out to be cleaner (i.e. freer of mercury) than expected. He speculates that the reason many levees are turning out to be full of mercury is because the material used to build them was dredged from the river bottoms at the turn of the century, when mining and the use of mercury was still going strong. Mercury input to the system has subsided greatly over the last few decades, which might explain why the materials being dredged today have less mercury in them than those dredged 100 years ago.

Topper Van Loben Sels felt that the benefit/cost ratio could be improved by acknowledging that the project would be built with today's dollars and avoiding inflated flood costs up to 50 years into the future. Mr. Ray assured Mr. Van Loben Sels that inflation over the 50-year life of the project was

taken into account. Mr. Van Loben Sels then asked if the benefit/cost analysis had taken into account the benefit to I-5 and CalTrans. Ms. Knittweis said that they did take benefit to CalTrans into account, and more information on that can be found in the “North Delta Area Historical Flood Damage Costs Summary” handout.

Mr. Mello pointed out that the estimate of \$9.2 million in flood damages on Tyler Island in 1986 takes into account only actual damages to the levee paid for by the reclamation district—inclusion of damages to private land and the farm support industry in Walnut Grove could easily double that estimate. Ms. Knittweis thanked him for the information, and committed to researching further into the issue. Additional suggestions for getting a more detailed estimate included:

- Mr. Mello offered to send out a questionnaire about flood damages along with the reclamation district’s next tax bill, if it would assist DWR in their estimates.
- Mr. Van Loben Sels thought he could get New Hope residents to fill out a similar questionnaire.
- Grant Kreinberg suggested asking David Ford for flood damage estimate sources.
- Mr. Mello suggested looking at before and after aerial photos to see how many buildings were destroyed.
- Mr. Kreinberg pointed out that on estimates for South Sacramento County Streams, they looked at the average of flood damage claims—they didn’t try to figure out each claim.
- Mr. Mello suggested taking into account damages to natural gas wells.

Possible Approaches for Refined Benefit/Cost Analysis

^{A13} Ms. Knittweis reiterated that the current benefit/cost analysis was very rough in nature and that DWR intends to perform a refined benefit/cost analysis. For the refined analysis, DWR plans to use either a FEMA- or a Corps-approved method. Potential approaches include (from most labor-intensive to least):

- Corps’ HEC-Flood Damage Analysis
- FEMA Mitigation Benefit/Cost Analysis—Full Data
- FEMA Mitigation Benefit/Cost Analysis—Limited Data

At a minimum, DWR intends to perform the FEMA Full Data analysis.

4. UPDATE ON TECHNICAL APPENDIX AND HYDRAULIC MODELING – Zaffar Eusuff, DWR

Mr. Eusuff is working on updating and responding to comments on the hydraulic modeling technical appendix for inclusion in the EIR. He said that he has read the HMCT meeting notes and is aware that there are some concerns about the model. He spoke to Bill Fleenor at UCD about these concerns, and Mr. Fleenor indicated that he had spoken with the concerned stakeholders and had addressed their concerns.

^{A14} Ms. Knittweis announced that UCD now has a contract to use a HEC-RAS model to corroborate the MIKE-11 modeling results. *Once that modeling is complete, UCD will share their results with Sacramento County and MBK Engineers.*

5. ENVIRONMENTAL DOCUMENTATION UPDATE – Chris Elliott, Jones & Stokes

Mr. Elliott gave an update of the environmental documentation status. It has been pretty quiet on the environmental documentation front since May, as the team has been waiting for various issues to be solved, including the project description implications of including or not including Sacramento County's 11F alternative in the North Delta EIR. A new schedule has been developed, in which the administrative draft EIR should be ready in Spring 2006, and the public draft EIR should be ready in Summer 2006. The schedule may seem more protracted than it needs to be, but this is a realistic schedule based on experiences with comparable projects in the CALFED family, which have had to wrestle with extended review times and provision of additional detail.

He also mentioned that, as Ms. Knittweis pointed out during the benefit/cost discussion, the term "phasing" has certain implications about timing that may not be appropriate to use in this project. Thus the project team is considering moving away from the "phasing" language and toward a "suite of potential elements" that are interchangeable with no preferred alternative.

There was then some discussion about the "phasing" or "suites" idea among stakeholders. Mr. Van Loben Sels felt that in order to get stakeholder support, project management needs to commit to implementing both phases (i.e. improvements on both McCormack-Williamson Tract and Staten Island). Mr. Crouch pointed out that the current political and financial climate would not be conducive to granting funding to the Staten element of the project. He suggested that a way to save the process the stakeholders have been in for years to get some relief in the North Delta would be to put forward an initial project bundle (i.e. McCormack-Williamson) that shows enough benefit to get funded. It would be a losing game to get hung up on a consensus question. He posed the question: Is it better to do nothing as opposed to improvements on McCormack-Williamson Tract only? Mr. Van Loben Sels responded that improvements to McCormack-Williamson Tract would be better than nothing, but that he also fears improvements to Staten Island will never be done.

Mr. Mello indicated that most people in the north delta admit that building a detention basin on Staten Island is a ridiculous idea, but that any solution will need to include dredging, as aggradation in the channels will continue to occur, or the value of the project will diminish over time. Mr. Elliott assured the group that when a preferred project is selected, that it will include a "Group 1" (or "Phase 1") option as well as a "Group 2" option. As discussed earlier in reference to the benefit/cost analysis, "Group 2" includes Staten options as well as maximum levee-raising and dredging options.

Mr. Mello also expressed concern for degrading any of the levees on McCormack-Williamson Tract, as those levees were built during the gold rush and likely have very high levels of mercury in them. He feels that degrading historic levees poses a much greater mercury threat than using current-day dredge spoils to build higher levees.

AI5 Mr. Whitener pointed out that the Regional Board is considering implementing a total maximum daily load (TMDL) requirement for mercury in the delta. *Ms. Knittweis volunteered to send a link to the Regional Board's draft mercury TMDL report out on the North Delta reflector.* Linda Fiack AI6 mentioned that the DPC will be educating the Regional Board on the uniqueness of the Delta system in November. *She invited anyone who would be interested in joining in to contact her at (916) 776-2292 or at lindadpc@citlink.net.*

6. NEXT MEETING

The next NDIG meeting was scheduled for Wednesday, December 14. Additionally, the next meeting of the Sacramento County Point Pleasant Flood Control Group will be held on November 15. ^{AI7} *E-mail Ms. Knittweis at gwenk@water.ca.gov if you would like to be included on the distribution list for that group.*