

**Matilija Dam Ecosystem Project Fine Sediment Study Group**  
**Assumptions/Comments/Questions/Data Gaps**  
**from USACE Presentation on 4b Design**  
**Meeting 1: December 10, 2010**  
(CCP 1/10/11)

Summary of Flip Chart notes and review of meeting transcript

**OVERALL**

**Data Gaps:**

Cost savings from single line instead of dual line  
Upstream O&M cost with permanent sequestration  
What changes to design would trigger re-authorization?

*Hutchison:* Never had agreement on acceptable level of turbidity for steelhead.  
Do we meet or exceed that level based on one alternative over another.  
*Baggerly:* Cost estimate of slurry line now that there is more detailed design.  
*Pratt:* Unknown: Regional Board water quality requirements  
*Jenkin and others:* Benefits of fine sediments on beach replenishment and mouth  
of river environment

**Assumptions/constraints:**

Original “without project” alternative maintained  
Better to have implemented quickly rather than phased slowly over time  
Disadvantage of notching: long timetable, with uncertain fishery benefits and  
uncertain funding  
*Pratt:* The more fine sediment you can sequester, the less problem with  
regulators. Nutrient laden sediment considered a pollutant.

**Data recommended:**

NOAA biological Opinion on Robles

**Assumptions not included:**

Beach acreage estimates not incorporated into HEP analysis  
Near-shore and offshore impacts not included (no USGS funding)  
Overall ecological benefit analysis

**Additional comments:**

Take into account new data on dam removal technology  
New data on wetland loss mitigation: allow sediments to flow downstream  
Recommend re-look at notching: cost/benefit analysis  
Apparent Divergence of HEP analysis and sediment storage behavior  
*Buxton:* Cost of BRDA increased from \$18 million to \$50 million

Well-timed sediment release every year or two preferable to chronic suspended sediment all year long  
No detailed analysis of projected erosion of fine sediments at the storage sites

**Information requests:**

Baggerly: detailed information on costs analysis for BRDA (itemized)

**BRDA**

***Data Gaps:***

Which assumptions drove up the costs  
More drying reduces cost, versus cost of longer conveyance  
What percentage of fine sediment goes to ocean in BRDA? MODA?  
No detailed analysis of ongoing downstream site erosion

***Assumptions/constraints:***

*Jenkin:* No HEP analysis of fine sediment as an environmental benefit to beach habitat  
Nothing less than 10 year storm event to transport fine sediment  
The more sediment sequestered the better (Regional Board)  
*Cluer:* Benefits of fines to ocean shelf not analyzed.

**MODA**

***Data Gap:***

Permanent impact analysis of MODA versus temporary impact analysis of BRDA

## **Topics from Meeting #1 Brainstorm on Problem Definition and Data Gaps**

### **Overall Design**

- What changes in 4b design/assumptions at this point would trigger reauthorization and
- How would reauthorization risk the project?
- We need to understand the data we already have to address these questions

### **Water Quality**

- What are the fine sediment problems for diverters? (5 members)
  - Compare water quality effects of existing conditions to full dam removal, incremental notching
  - What is dose effect of legacy sediments?
- Changing conditions: Is there any data on Casitas that has changed?
- How much chronic impact is there on the storage sites while we are waiting for the big flows?
- Define “chronic”
- What are benefits of the fine sediment in the watershed and on the downstream floodplain?
- What’s possibility of depositing fines in the river below Robles?
- How do we quantify the risks to the public’s water supply”
- How do we quantify risks to the water supply?

### **Water Supply**

- What options are there to Casitas for making up their water supply (supply alternatives, conservation, transfers, etc.)

### **Alternative 4b**

- Can BRDA be phased?
- What can we learn from analyzing the constructability of a 2- phased BRDA?
- What needs to be done to “run 4b to ground” and to help define possible contingency plan?

### **Natural Processes/Fish Passage**

- How would USA affect natural processes and USFWS consultation
- What are effects of net loss of some habitat (e.g. Arundo removal has provided improved habitat for least Bell’s vireo, which has now returned to the watershed)
- How will fine sediments affect Robles Fish Passage?

### **Cost**

- If NOAA has requirements that are going to be added in, what are the total project costs?
- What is the cost of revising the BO's (note that BO was issued for 4b)?
- Is cost acceleration a problem?
- What cost increment is a no-go?
- Do we have an unfundable project due to cost?
- Are there less expensive alternatives?

### **New information**

Is there any new data that has been developed over the past 10 years that would change our water quality assumptions?

Is there relevant data from other pre-/post-dam removals that would benefit our thinking on Matilija?

### **Value Engineering**

Baggerly: How about doing a value engineering study on just the fine sediment issue?

*Emergent consensus at end of meeting:* Focus first on 4b. Look more in depth at BRDA sites