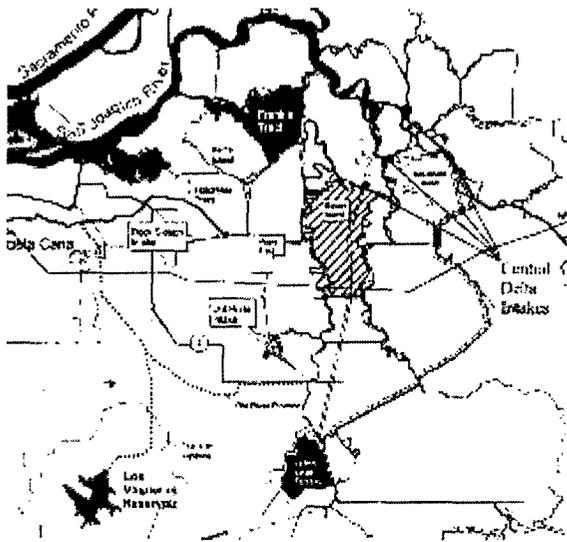


Central Delta Intakes



DRAFT NOTES:

Water Management Coordinating Team Meeting
2/24/00
9:30-12:00

AGENDA:

- Central Delta Intake Concept of South Delta Interim Program
- Analyze the options
- Understand the concept
- Get study teams evaluating the concept

Attendees:

Mike Fris; USFWS, Matt Vandenberg; USFWS, Jim Buell; SWC, Terry Erlewine; SWC, Bill Johnston; Modesto ID, Jim Snow; WWD, Dave Fullerton; CALFED, Richard Denton; CCWD, Pete

Chadwick; CALFED, Jim White; DFG, George Heise; DFG, John Andrew; DWR, Ryan Olah; USFWS, Jason Pelter; CVPWA, Mark Cowin; CALFED, Tina Swanson; Bay Institute, Scott Woodland; DWR, Steve Roberts; DWR, Tracie Billington; CALFED, Dave Paulson; MWD, Amy Fowler; MWD, Brian Campbell; EBMUD, Rick Wantuck; NMFS, Bruce Herbold; EPA, Rick Sitts; MWDSC, Ron Ott; CALFED, Dale Flowers.

I. Introduction - Project Concept (Richard Denton and Bruce Herbold)

- Concept surfaced recently when Secretary Babbitt asked stakeholders what additional they would like to see. With a north Delta extension (Hood) being considered as a potential option, why not a south Delta extension discussed and evaluated in earlier CALFED planning. Original options 2C and 3I had south Delta extension elements and these were dropped from consideration because of high costs. A simpler concept may prove more feasible and less costly.
- Concept involves moving or adding intakes to the Central Delta along the San Joaquin River.
- This could be accomplished in stages.
- **Stage 1A** could immediately satisfy concerns in the south Delta about water quality - The SDWA wants better water quality (lower salinity) than the water they get now, which is predominantly San Joaquin ag runoff or discharge. **Stage 1C** would continue isolated channels to south Delta project pumps.

Stage 1A

- McDonald Island intakes.
- Internal canal conveying diverted water
- Discharge/siphon to isolated Whiskey Sl and Trapper Sl.
- Water service to SDWA initially.

- **Stage 1B** would involve Bacon Is storage with 4000 cfs intakes with Delta Wetland type operation. **Stage 1D** would link Bacon directly via pipeline/canal to CCF. This concept proved effective in CALFED EWA gaming.
- Dispersal of intakes into 4 to 8 intakes each with a capacity of 1,200 cfs may allow passive flat plate screens such as those that have proved effective at CCWD intake at Rock Slough.
- This configuration may solve problem of salt water and delta smelt becoming trapped in south Delta as happened this past spring. Also reduces the dead-end fish trap in the south Delta.

Stage 1C

- McDonald Island intakes.
- Internal canal conveying diverted water
- Discharge/siphon to isolated Whiskey Sl.
- Whiskey Sl, Trapper Sl, Victoria Canal isolated conveyance to project pumps.
- Water service to SDWA.
- Service to DMC.

II. Discussion: Questions/Comments

12. *Does Tracy operation remained unchanged in Stage 1A?* Yes. This would be simply an addition to the preferred alternative to improve south Delta water quality.
13. *Is this independent of a Hood element?* Yes
14. *Would pumps be required to get water off McDonald?* Yes, but may be partially gravity fed to Whiskey Slough.
15. *Does CCWD have some concerns and options?* Concerned about Old River water quality at Rock Sl. Northern fresh water is reduced in the Delta by Stage 1D.
16. *What about effect on Delta circulation from taking these canals out of the system? Would this exacerbate the delta smelt problem?* Trapper and Whiskey sloughs are not contributing much to Delta circulation. Victoria plays a greater role. There may be some water quality problems from discharges into these canals.
17. *What about potential impacts to San Joaquin salmon fry and smolts migrating down the San Joaquin near these intakes?* These screens are less of a threat than the existing fish facilities. VAMP export restrictions will serve to minimize any potential threat.
18. *Has there been a water quality analysis for this concept?* We see a need for such an analysis - it should extend beyond just the Central Delta and should include effects on project pump quality.
19. *Why were these specific channels chosen?* They are logical choice - Trapper is filled with weeds. Can't use San Joaquin channel.
20. *Why were 2C and 3I concepts dropped?* Duel conveyance 2C was too costly. The preferred alternative proved as effective at meeting objectives with far less cost.
21. *Is a seismic analysis needed?* Yes.
22. *Is the Intertie in Stage 1C?* Yes.
23. *What about other concepts that were dropped - will we revisit them?* We have only been asked to evaluate this concept.

24. *Are the 8000 cfs in this option in addition to the 15,000 cfs in the south Delta? Yes.*
25. *We could make SDWA's water worse, because they get a lot of their water from the Sacramento side.*
26. *Are we talking about serving SDWA customers with an overland canal? Yes. A CALFED team assessed this option last year.*
27. *There may be a serious water rights issue if we change their water source.*
28. *What will be the quality of the Stage 1A canal water?*
29. *How do we serve SCWA during periods of export restrictions - they are not restricted now?*
30. *Have you thought about Folsom South Canal and Mokelumne Aqueduct connections to Trapper Slough in this concept? Someone may have, but it is not something we are addressing.*
31. *In the EWA Gaming we could not adequately assess the potential effects of pumping at Bacon Island. We assumed screens would work. This may require more analysis and evaluation.*
32. *Does this represent two proposals - Bacon concept and McDonald concept? Are we addressing SDWA and CCF/Tracy problems? Yes.*
33. *Barriers are a cheap fix to south Delta problems. This will be very expensive. Who is going to pay for it? SDWA doesn't pay for their diversions now - why would they pay for this? This is not for us to evaluate. Higher management question.*

III. Analysis Questions

- Size of systems at Bacon and McDonald
 - What type of fish screens.
 - What are the specifications of alignments and configurations.
 - How we plan to use components.
- A. *Will this be included in the ROD as an option like the Hood concept?*
 - B. *This has more going for fish than the Hood concept.*
 - C. *Should salvage screens be used or flat plate screens?*
 - D. *There may be more fish in the Central Delta including more eggs and larvae.*
 - E. *Shouldn't we include regulatory hurdles in the feasibility?*
 - F. *Do we relate this concept with the Hood concept? Would Hood solve the south Delta problems so this concept is not needed? We have been asked not to evaluate Hood.*
 - G. *Should we evaluate this in context with additional SOD storage?*
 - H. *Is there a WQ problem we need to consider with closure of the DCC in south Delta? Not sure.*
 - I. *We need to make clear this is not the last stage of the PC. Its only 4000 cfs.*

IV. Assignments

Screen Team - members from CV Fish Facilities Team

- Evaluate feasibility of 4000 cfs each at Bacon and McDonald.

- What type of screens?
- Any red flags?
- Can we adequately protect fish with screens?
- Success at Rock Slough is not a fair comparison.
- Multiple salvage facilities would be a fatal flaw, so can we do it without salvage?
- Salvage screens do nothing for delta smelt.
- Site selection, amount diverted, and screen size are critical.
- Predation?
- Evaluate two separate projects (i.e., Bacon and McDonald concepts)
- Consider vulnerability of species, life stages, distribution in time and space, eggs and larvae - ability to protect life stages
- Need operational scheme to fully evaluate - consider multiple possibilities relating to fish protection, water supply, and water quality.
- Assess screen effectiveness under different operations options
- Do not consider screening eggs and larvae.
- Provide a cursory evaluation with cost estimates.
- Consider flexibility of multiple intakes given need to divert most of year.
- South Delta water users will need their water all the time.
- Design should be influenced by need for short term closures.
- What are the best locations for the intakes. What areas should be avoided (e.g., habitat restoration projects around McDonald Island).
- Need qualifying assumptions.
- Identify vulnerabilities that screens can't deal with (e.g., egg and larvae entrainment).
- Team needs to identify what is possible and what is not.
- What can be screened.
- What are ramifications if we can't effectively screen everything.
- Can screens be effective and cost efficient.

Water Quality Team

- Effects on drinking water
- Effects on SDWA
- Do we consider storage on McDonald Island.
- Do we consider Victoria Island
- Consider bromides, TOC, **and** salinity.
- Identify possible schemes for operating around WQ problems.
- Consider effects on south Delta water levels.
- Relate to South Delta Program - SD Team should look at this to see if it helps their problems.
- Assess need for SD barriers in this configuration.
- Check on McDonald peat content.
- Evaluate WQ benefits of the concept(s).
- Need some DSM2 modeling - develop assumptions for runs.
- Look at different operational schemes that may be considered. (E.g., Delta Wetland style

- versus year-round style)
- Look at three options: 4000 cfs Bacon DW style, 4000 cfs McDonald year-round style, and both together.
- Consider 23,000 total capacity - but 16,500 cfs need (15,000 plus SDWA's 1500).
- Assess impact of storing water on islands on urban WQ. Consider wind resuspension on organic carbon not just leaching.
- Consider different plumbing options at CCF/Tracy - consider separating urban and ag water.
- Consider full year effects in wet and dry years.

Water Supply Reliability Team (Later consideration)

DEFT Team for Fish Assessment

- Determine if there are any reasons why these concepts should not be considered.

V. Team Leaders

Team leaders will get assignments started over next few weeks.

- Screen Team - John Andrews
- Water Quality - Dave Briggs
- Fish Team - Bruce Herbold
- Operations - Dave Fullerton
- South Delta - Steve Roberts, Tracie Billington
- Costs - Darryl Hayes
- Delta Modeling - Francis Chung