

CDFW - Sites 60 day Evaluation

Initial Meeting Agenda

Sites Reservoir Project

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| **Date:** | *May 30, 2019* | **Location:** | *Jacobs Office: 2485 Natomas Park Drive, Suite 600* |
| **Time:** | 8:30 am - 10;30 | | |

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| **Purpose:** Initiate discussions of the Sites Project Operations components for the 60-day evaluation process. Review existing information, discuss future information needs, establish technical meeting schedule | | | | |
| **Invitees:** | | | | |
| ~~Kristal Davis Fadtke~~- CDFW  Rob Thomson, Sites Authority  Kevin Spesert, Sites Authority  Mike Dietl, Reclamation | Ken Kundargi- CDFW  Lenny Grimaldo, ICF  ~~Marin Greenwood~~, ICF  Jim Lecky, ICF  Duane Linander- CDFW | | Felipe La Luz - CDFW  Chris Fitzer, ESA Associates Rob Tull, Jacobs John Spranza, HDR | |
| **Agenda:** | |  | |  |
| **Discussion Topic** | | **Topic Leader** | | **Est Time** |
| 1. Introductions and Purpose    1. Schedule    2. Governance | | ~~Kristal Davis Fadtke~~  Rob Thomson | | 10 min |
| 1. Sites Project Overview    1. Location/Facilities | | Rob Thomson | | 10 min |
| 1. Operations: Hydrology and Modeling 2. Past modeling 3. Initial modeling results 4. Other??? | | Rob Tull | | 30 min |
| 1. Simulation Results    1. Near Field    2. Far-field    3. Floodplain    4. Life Cycle Modeling    5. Delta and Longfin smelt    6. Others???? | | Jim Lecky  Lenny Grimaldo | | 45 min |
| 1. Available tools    1. CalSim2 Updates    2. USRDOM Daily Model    3. HEC5Q – American, Feather, Sacramento Riv    4. USBR Monthly Temp and early life-stage    5. DSM2 HYDRO, Qual, PTM    6. SALMOD    7. Henderson et al.    8. OBAN/IOS    9. Sites Reservoir CE-QUAL-W2    10. Sites Project Operations Viewer | | Rob Tull, Jim Lecky, Lenny Grimaldo~~, Marin Greenwood~~ | | 60 min |
| 1. Next steps for 60 day schedule | | Group discussion | |  |

# General Meeting Notes

Initial Presentations

* R Thomson presented agenda, purpose, anticipated topics, location, and results slides.
* R Tull presented modeling and sample year hydrology slides plus intro slides on Operations viewer..

Discussion Topics

* When writing the ITP for CWF, CDFW analyzed recent years (2003-2012, 2014) of actual measured data (hydrologic and fish) which was used in conjunction with Russ Perry’s survival model to set initial operation conditions and then inform operations and pulse protection accordingly.
  + NMFS contracted with Russ Perry to model through-Delta survival for the purpose of incorporating his reach specific survival model into potential North Delta Diversions (NDD) operations. The results highlighted periods of time when Level 1 diversions would result in an impact of more than 5% survival. This overlayed with actual fish emigration timing informed by Knights Landing catch data and a bypass threshold identified by Perry’s work indicated when additional protections for emigrating winter-run Chinook salmon would be needed and other times when flows in the Sacramento River were at a level that routing and survival would not be significantly impacted by additional diversions.
  + CDFW used this method on the salmon side to identify a reasonable threshold above which north of delta diversion could happen with acceptable impacts to salmonid survival.
  + Revisions to the operations of the NDD would then be made using up-front agreed upon adaptive management to rebalance future permitting and operations that would also include some assured amount of water that could be diverted.
* CDFW informed the group when developing and writing the CWF ITP, a condition of the ITP was that draft study plans would be reviewed by the Collaborative Adaptive Management Team (CAMT) and sent to a larger group for approval. The intent of this was so that parties would agree on a path forward prior to implementing studies versus studies being implemented and discussion on the science taking place afterwards.
  + Allows for an Agreement that is a bit more open on the front knowing that there would be a prescribed science based process to refine/adaptively manage.
* Sites ITP will have to have adaptive management involved and that this 60 day process can narrow the level of uncertainty in the project’s operational effect to a reasonable level that can then be reported out to Governor’s Office and then carried forward to reach the 2081.
* For upcoming discussions, CDFW highlighted the need to take an ecosystem wide approach as operations upstream have ramifications throughout tributaries and the Delta. there are a lot of splits in the permitting decision process; by upstream and downstream, by species and run, and by agency (CDFW, NMFS, USFWS).Ken would like to minimize that. Did not get done with ROC, would like to see it.
  + Like to look at whole ecosystem to the extent feasible which would be preferred to previous/recent doctrine
* Ken would like to see Henderson’s model applied to below diversions
* CDFW would be looking for a specific adaptive management framework, some specifics of what we are trying to do by when (year), what study questions need to be answered, operational decisions that would be made, assurances that it will be carried out, other…?
  + Needs to inform funding as well.
  + The larger group requests an idea of what additional information will be needed to reduce uncertainty enough to push through adaptive management.
* Mike D: Federal government needs to hear the State acknowledge that the project has ecosystem benefits to anadromous fish (as included in the Sites WSIP application and appeal) to assure proposed federal funding.
* Lenny G: What other specific information does CDFW need to reduce that uncertainty in the Adaptive Management Program?
  + Where can Sites help develop new science to inform fisheries?
  + CDFW stated they will need some time to think about this and get back to the group.
* Lenny G: Requested CDFW input on what data sources they would like us to use and what the definition of best available science is: Specific papers, life cycle models, and other specific science to use in the preparation of the ITP. The goal being to narrow the gap in interpretation of science in the next 60 days.
  + CDFW stated they will need some time to think about this and get back to the group.
* Rob T: If CDFW provides years they would like to see modeled, Sites will provide the information available for those years (and similar years in CalSim2) and walkthrough a run of those years with CDFW.
  + CDFW stated they will need some time to think about this and get back to the group.
* Rob T: How does this coordination process occur for terrestrial species in the ITP?
  + Ken: Would not occur in these meetings, which would focus on operations.

## Next Steps

* CDFW will get back with what they would like to address in follow-up meetings.
  + Need to loop in structure (regions) and clear with Kristal.
* Look for regular blocks of time to be available.
  + Wednesdays seem likely.
  + Wed June 5, 2019 12:00 – 2:30 next meeting
* Sites to send 2018 Henderson paper around.
* CDFW to provide desired model years for next workshop.
* CDFW to provide contact for terrestrial discussions.

## Future Meeting Structure:

* Better understanding of tools (daily model) and a look under the hood of the model runs
* Model Meeting
  + Next week: Daily model discussion
  + Following Week: Henderson paper Henderson paper meeting with Marin focusing on the effects below diversions. What is the plan to evaluate instream survival? Where are we going to go with the paper’s findings related to Sites
  + OBAN-Potential to run model scenarios with different bypass flows
* Outflow and Downstream

## CDFW Information Requests:

1. Assumptions in CalSim; in detail
2. Daily Model discussion; in detail. And possibly a focused session on that model with CDFW hydrologists.
3. Send hydrology presentation slides to CDFW (and ESA).
4. Send Henderson paper.