

STATE BOARD MONITORING SPECIAL STUDY
Technical Workgroup Meeting #5 – The MSS and 1980 Report
March 17, 2022
11:00 pm – 12:30 pm

MEETING NOTES

ATTENDEES

- Ibraheem Alsufi/DWR
- Erin Andrews/DWR
- Eli Ateljevich/DWR
- Erika Britney/ICF
- Tom Boardman/Westlands Water District
- Thomas Burke/Hydrologic Systems for SDWA
- Ching-Fu Chang/Contra Costa Water District
- Chandra Chilmakuri/SWC
- David Coupe/SWRCB
- Janis Cooke/SWRCB
- Daniel Deeds/USBR
- Elizabeth Kiteck/USBR
- Erin Foresman/State Water Resources Control Board
- Michael George/SWRCB
- Bryant Giorgi/DWR
- Jose Gutierrez/Westlands Water District
- Jelena Hartman/SWRCB
- John Herrick/South Delta Water Agency
- Lindsay Kammeier/SWRCB
- Stephen Louie/SWRCB
- Maureen Martin/Contra Costa Water District
- Bill McLaughlin/DWR
- Jacob McQuirk/DWR O&M
- Jenna O’Neill/ICF
- Tracy Pettit/DWR
- Prabhjot (Nicky) Sandhu/DWR
- David Steffenson/DWR
- Karen Tolentino/DWR
- Ian Uecker/DWR
- Grace Windler/USBR
- Zhenlin Zhang/DWR

MEETING NOTES

The purpose of the meeting was to review the specific technical studies and activities within the MSS workplan and the framework of the 1980 report relative to the scope and objectives of the MSS as articulated in the 2018 amendment to the water quality control plan. The meeting started with a presentation which included a review of the scope and composition of the MSS and an overview of the 1980 report with the USBR and DWR assessment of how it relates to/can inform the MSS.

MSS Updates

- The COP and the MSS have been separated in order to meet requirements in the water quality control plan. This will be discussed in more detail at the next stakeholder meeting.
- The MSS Workplan technical studies and activities will focus on the following goals:
 - Characterize spatial and temporal characteristics of salinity, flow and water levels
 - Identify the extent of low- or null-flow
 - Inform development of a long-term monitoring plan and reporting plan

- The Paradise Cut Flushing study was put on hold and removed from the technical study list due to drought conditions and potential adverse effects flushing may have on Old River. This study will remain delayed until drought conditions improve and preliminary modeling shows the effects of flushing.
- The MSS will focus on the following technical studies:
 - Salinity Point Source and Ion Sampling
 - High-Speed Salinity Transect Mapping
 - SCHISM 3D Hydrodynamic and Water Quality Modeling
 - Water Quality Data Assimilation Modeling

1980 Report Discussion:

- *Tom Burke, Hydrologic Systems for SDWA:*
 - My understanding is that the MSS was to develop studies that would evaluate the impacts of the COP, yet I don't see any of the stated goals that relate back to the COP in any way.
 - We should be able to look at operations plans and pre- post- projects to see how they impact current conditions.
 - The complexity and resource requirements of SCHISM are such that they will eliminate 90% of the stakeholders from performing any type of meaningful technical review of the model runs. I like the model. Using a more available model that stakeholders can use and to evaluate proposed scenarios would be more inclusive for all of those that are involved.
 - How can the MSS inform the COP if it does not include analysis of any of the operations in the COP?
 - The 1980 Report is not an “end-all, be-all”, but a way to verify what is happening.
 - Look at it from the perspective of understanding the “mass balance” of salts, built up over time. Mass could be building up in some areas. Leaving out one key component could be detrimental.
 - This is a technical process tied to a legal process...the application of water quality standards will dictate the law.
 - We cannot just write off the 1980 report.
- *Ibraheem Alsufi, DWR O&M:*
 - My interpretation of the 2018 Water Quality Control Plan was that the MSS is intended to collect, analyze, and characterize EC, flow, and stage data in the South Delta and to inform a Long-Term Monitoring and Reporting Plan.
- *Maureen Martin, CCWD:*
 - Can we use the MSS as a process to understand what is going on in the South Delta without any finger pointing or blaming?
 - How is our feedback getting incorporated?
- *Jelena Hartman, SWRCB:*

- Confusion between the COP and MSS requirements may be contributed from section (B)(1)(iv)(b) of the 2018 Bay-Delta Water Quality Control Plan, which states: “DWR and USBR shall provide modeling and other technical assistance necessary to prepare and update the COP, and otherwise assist in implementing the southern Delta agricultural salinity objective.”
- *Ching Fu Chang, CCWD:*
 - If I understand it correctly, you're not doing runs on historical hydrology, but instead doing runs on future plausible scenarios. If that is correct, and the concern is that building a feedback loop is too complicated, a starting point can be connecting your plausible scenario to hydrologically- and hydraulically-similar past scenarios, and assume that the Vernalis EC would be similar. It's like coming up with a prior distribution of Vernalis EC. In the lack of a better feedback loop, this might be “good enough”.
 - We looked at upstream salts via the grassland bypass data two years ago. The salt concentration is significantly reduced, but they are not managing storm flow, so the salt load looks lower because of the amount of water in the system.
 - Is there a response to some of the comments that have been given during previous stakeholder meetings in the draft MSS? What about other comments? Specifically written comments we’ve provided¹. (Note: Ibraheem will be ensuring that they are incorporated).
- *Michael George, Delta Water Master:*
 - We should look at the whole range of impacts and 1) understand, 2) improve, and 3) make a plan.
 - There is a need for a broader analysis that extends beyond the South Delta and the scope of the MSS and up into the watershed past Vernalis.
 - Let’s look at what happens at Vernalis. Mass balance accumulation is an important factor.
 - This is the best, most informative discussion of the MSS that I have ever encountered since it was incorporated into the 2018 WQCP update. Thank you. Let's keep up the discussion and withhold the finger-pointing.
- *John Herrick, SDWA:*
 - We presented the 1980 Report as an input.
 - The report is relevant because the first three chapters explain that for 60 years water has been delivered to these areas and released onto the land.
 - Chapter 7 in the report explains that the export pumps alter conditions (right or wrong) and impact how water moves in the South Delta. As soon as the pumps are involved, water is no longer going through three channels, but getting pulled other directions—increasing salt load in the South Delta area.
 - Part of your examination should be, “Salt comes down to Vernalis...and then it goes *where?*”
- *Jacob McQuirk, DWR O&M:*

¹ Maureen Marin also asked how feedback is being incorporated into the MSS

- Permanent operable gates replacing the temporary barriers would be a major win for many reasons including the ability to change water quality in South Delta channels such that it is dominated by Sacramento River source rather than San Joaquin River dominance.
- If we focus on upstream, it has the capacity to derail us from our focus. Setting a scope to large will affect our ability to conduct a study with meaningful results.
- Note: There was a follow-up comment from *Michael George* recognizing the need to maintain focus of the MSS on South Delta and agreeing a broader study would take more time.
- *Eli Ateljevich, DWR:*
 - Water quality is occasionally controlled mostly by upstream conditions on Vernalis and occasionally controlled mostly by in-Delta sources of salt.
 - The 1980 document focuses mostly on the upstream conditions. The 1980 document describes a gap in knowledge in how inflows of water, inflows of salt, exports and in-Delta sources and sink interact to produce South Delta water quality. This gap is filled by the MSS as it is proposed.
 - A larger feedback is proposed between export pumping and the salt loads that appear at Vernalis. This is not quantified or estimated in the 1980 report but the movements of water described there would be pertinent. The effect on salt is unclear because a lot of the water is fresher Sacramento water.
 - The feedback is a decadal scale circulation problem involving groundwater and much of the valley. It is large in scope both because of the times and number of subsystems and the science will be less certain. It would make sense to partition efforts into the Delta questions which don't focus on the origin of salt but describe its effects and usefully be used to create a regulatory system that works better for that area and the valley-scale problems that will take longer to study and are mostly important for sustainability and responsibility questions.
- *Stephen Louie, SWRCB:* We can have multiple hypotheses that are studied on different timelines.

CLOSING & NEXT STEPS

The next stakeholder workshop will be held in April, after the draft MSS goes out.