

## OUTCOMES MEMORANDUM

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**TO:** CAMT Salmon Subcommittee Members  
**FROM:** Rafael Silberblatt  
**DATE:** December 3, 2020  
**RE:** November 12, 2020 CAMT Salmon Subcommittee Meeting

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**Attendees:** Alison Collins, April Hennessy, Brad Cavallo, Bruce DiGennaro, Bryan Matthias, Brycen Swart, Carl Wilcox, Cathy Marcinkevage, Deanna Sereno, Erik Loboshefsky, John Ferguson, Kate Spear, Michael MacWilliams, Mike Beakes, Pascale Goertler, Rene Henery, Thad Bettner, Sheena Holley, Steve Zeug

### **Action Items:**

- All - provide feedback on the Anchor QEA hypotheses (11/13)
- Steve Zeug - share the PowerPoint presentation with the *O. mykiss* life stage analysis table for the Stanislaus River
- Rafi - circulate the revised CSSP slides and a draft cover letter

### **Discussion Highlights:**

#### **1. Agenda Review and Updates**

- November CAMT meeting:
  - Lenny Grimaldo will provide a brief update regarding at the November CAMT meeting regarding the ICF and CDFW modeling tools.
  - Ann Marie and Nobel will provide a presentation on the Winter Run Lifecycle Model following an introduction from Steve Zeug/Erik Loboshefsky. Brett Harvey will speak about the restoration needs brief.
- The Steelhead Workshop is scheduled for February 17- 19 from 9 AM – 12:30 PM. There will be a two-hour presentation and one-hour discussion.

#### **2. Anchor QEA Follow Up**

- Anchor QEA followed up on their initial request for feedback on their DSP-funded project.
- Questions/Comments
  - We need more specificity about the acoustic data that can be extracted from each of the study areas, since hypotheses have to be specific before they can be prioritized. A lot of the hypotheses from different efforts may not be suitable for the stated approach.
    - While 3D positions are not available, there is an account of the time a fish passes. For the most part, where there are dual arrays, directionality can be assessed (based on the time stamps).

- It's difficult to prioritize some hypotheses because the statements have several drivers and need to be pared down. Once there is more specific information from the acoustic data, the number of hypotheses can be reduced.
  - Perhaps, the team should proceed with the analysis as laid out and focus on the more finite questions at these specific locations.
- Suggest simplifying things by focusing on local hydrodynamics.
  - The focus is on local-scale hydrodynamics. However, there are macro factors affecting local hydrodynamics that need to be considered. For example, if the opening or closing of the cross channel or barrier is ignored, then important information on their impacts on local hydrodynamics will be missed.
- Appreciate all the comments and feedback as the team continues to organize the approach.
  - **[Action]** Subcommittee members should provide feedback to the Anchor QEA team by November 13<sup>th</sup>.

### 3. Steelhead Monitoring Update

- Mike Beakes shared an overview of the Steelhead Monitoring Gap Analysis.
  - The overarching goal of the project is to identify monitoring activities for *O.mykiss* in the Central Valley, building off of existing efforts from the last 10 years.
  - The project has been underway for over 6 weeks, and the team has been reaching out to local experts about past, current and future monitoring efforts.
  - A one-pager was created for the project and provides a project overview, analysis of goals, as well as questions for watershed experts and/or program leads.
  - The team has received positive feedback thus far and stakeholder's have expressed excitement.
  - The team is currently in the process of consolidating and organizing responses. Once this information has been organized, it will be compared to past results. Any new and/or changing activities will be highlighted, with the end goal of developing a spatial repository/visualization and factsheet of monitoring approaches and sites for distribution.
- Questions/Comments
  - How do we ensure data gaps used to inform key management questions are being filled?
    - The extent to which this gap analysis can address these specific issues is uncertain – though this will be a topic in the workshop. However, it does discuss how we structure monitoring around actors that influence anadromy and species life history expression.
  - Steve Zeug shared a presentation on Stanislaus River *O.mykiss* Life Cycle Monitoring.
    - Cramer Fish Sciences is developing a monitoring plan starting with life history pathway.
    - Hoping to use new genetic techniques (Close-Kin Mark-Recapture) to get generational data in an effort to predict the likelihood of out migration, life stage abundance and the transition among life stages
    - The draft plan should be prepared by the end of November and data collection should begin in March or April 2021. Migratory adult monitoring should be conducted in 2021 and 2022 and outmigration monitoring should be conducted from December 2021 to June 2022. Egg to fry survival monitoring should be conducted from December 2021 to February 2022.
      - **[Action]** Steve Zeug will share a PowerPoint presentation which includes the life stage analysis table.
- Are the workshop and the *O.mykiss* Life Cycle monitoring a part of the same effort?

- They are separate efforts. The goal of the workshop is basin-wide, while the monitoring effort focuses on the Stanislaus River.
- Once this monitoring plan is implemented, there's a future question for discussion regarding the point at which the river should undergo experimental manipulation to assess life history expression. The Stanislaus River could be a good place to do this.
  - That's a great comment and is something CVPIA Science Integration Team discussed. It would be a serious undertaking and require coordination amongst several different stakeholders.

#### 4. CSSP Subcommittee Perspective

- The Refiner Team provided an overview of the Nov CAMT PowerPoint presentation for feedback from the Subcommittee. The presentation was edited live to reflect the discussion points raised in the meeting.
- Questions/Comments
  - On the second bullet, develop a Science Plan. Is that for the Delta or beyond?
    - We're not far enough along to spell that out as yet.
    - It's a good question to ask ourselves.
    - It will be easier to answer that question once we go through the process of identifying/categorizing the science as part of the broader salmon recovery effort.
  - Does further analysis need to be done before higher priority actions can be undertaken or can they be done simultaneously?
    - They can be done simultaneously. Additional analysis of some of the data is warranted, but there are enough high priority actions that can be moved forward.
  - Concerned that the Q method process that was used may have strayed from best practices (e.g., looking at agreement based on affiliation groups instead of across all individuals)
    - Doesn't seem like a deep dive on the methodology is warranted, since the results are only being used to help indicate perspectives, and areas of agreement/disagreement to build on common interests or point out areas that need further evaluation. The report stays away from drawing conclusions.
      - People believe that this was a quantitative prioritization exercise and tool. We should clearly state that it was not and highlight this by providing the aim, where it evolved, fell short and any changes that were made.
  - Is there agreement that Phase 1 findings actions are good, or should the data be reviewed again?
    - This should be advanced, but there should be more analysis to gather information on what was missed.
    - Additional work could be done regarding the relationship between the Q-statements and the activity statements. There is inherently a lot of opportunities to introduce bias.
      - An offline discussion could be had about that and those dynamics.
      - Rene Henery offered to discuss the Q method survey's strengths/weaknesses and process with any interested Subcommittee members
  - Is there anyone who objects to moving forward with the items on slide 6?
    - No, this sounds good.
  - How much time is there to present this?
    - Approximately 30 minutes.
  - Can we determine the categories that should help evaluate the benefits and cost of actions and next steps coming out of salmon recovery?

- Could be framed as being Delta-specific. There's a need to highlight what is being done and the gaps. Consider reaching out to individual watersheds to determine their priorities, so this work can be more Delta-specific.
- Should the next steps be independent of recovery but allude to the fact that one will fit into the other?
  - Yes.
- Consider shortening the presentation, starting with the next steps and then providing the details for each bullet.
  - **[Action]** Rafi will send revised slides to Subcommittee members for input.
- Should a cover letter or memo be created?
  - Yes, a cover letter would be helpful and should be short.
    - **[Action]** Rafi will draft a cover letter for December's Subcommittee meeting, with assistance from Brad Cavallo, Cathy Marcinkevage, Brycen Swart and Rene Henery.
- When should the report and survey data be distributed?
  - As soon as possible.

## 5. CSAMP and Salmon Recovery

- Bruce DiGennaro provided an overview of the draft Salmon Recovery Framework.
  - Additional information needs to be provided to help flesh out the next steps.
  - Currently, a joint CVPIA-CSAMP effort to evaluate projects is recommended, where CSAMP forms a group or contract to support the evaluation.
  - The intent is to frame a discussion topic related to the next steps, one of which is the need for a biological goal (i.e. what is trying to be achieved and the approaches for doing so).
- Questions/Comments
  - Isn't there an overarching biological goal from the original proposal?
    - Yes, there is. This could be put forward with the information from the Delta Smelt project as well.
    - Biological goals are key. The NMFS Recovery Standard would be a good place to start.
  - The next step could be the development of a framework that outlines current activities and identifies the point at which CSAMP can be an effective participant and vehicle for recovery. Critical that science not get lost in all of the State funding that is being allocated to implementation activities.
  - Could you provide an update on the iteration between the Policy Subcommittee and CAMT/CSAMP?
    - Yes, that's being organized for next week to get as much dialogue between CAMT/CSAMP and the Policy Group.
    - There needs to be communication because some things could be unclear to some participants.
  - How much will the CSSP outputs feed into the identification of priorities?
    - It's not just the low hanging fruit but a high benefit in general. Several people having this discussion are not aware of the ongoing work being done to determine this. There might be some areas in which the high benefit would be different if there was a specific biological goal, though I don't think there will be many because of how the actions and Q-statements were structured, and the interview questions were asked. We need to take a look at results

and determine if there are any areas of high benefit that change when discussing recovery. Those areas should be pulled out and prioritized.

- It would be helpful to review categories of projects and prioritize those in line with the objectives. There needs to be something fairly focused and specific, setting a broader objective for rearing and escapement and then using the life cycle models to start to evaluate those things. It's not as if these restoration activities are going to wait for CSAMP, they're ongoing. It needs to be kept in mind that there are broader categories, not necessarily individual projects.
- Is this primarily about restoration work?
  - It's more than restoration projects – could also potentially include regulatory and operational actions in tandem with restoration actions to balance benefits and tradeoffs.
- In summary, there needs to be a clear set of science-based goals/objectives. While we need some time to develop those, we can highlight that as a key next step in the Policy Committee discussion next week. We also need to get a sense of what's happening currently and how to fill the gaps. Additionally, we need to think about categories of projects, not individual projects.
  - Suggest “projects” be changed to “actions”, like “high impact actions.”
- Is there a need to look at the survey data with a recovery lens?
  - Yes, it might be worth another look.

## **6. December Subcommittee Prep**

- Note: there is a conflict with the 12/10 Policy Group meeting that will be meeting from 10 AM – 12 PM, so the Subcommittee will convene from 9 AM – 10 AM only.
- Dec agenda items:
  - Review CSSP cover letter.
  - DSP-funded PI engagement, “Quantifying the contribution of tidal flow variation to survival of juvenile Chinook salmon”