OUTCOMES MEMORANDUM

TO: CAMT Salmon Subcommittee Members

FROM: Rafael Silberblatt

DATE: December 2, 2019

RE: November 14, 2019 CAMT Salmon Subcommittee Meeting

Attendees: Adam Nanninga, Alison Collins, Brad Cavallo, Carl Wilcox, Cathy Marcinkevage, John Ferguson, Josh Israel, Kate Spear, Lynn Takata, Natascia Tamburello, Pascale Goertler, Todd Manley

Action Items:

- Bruce, Rene, and Carl – Follow up call to discuss next steps on Salmon Action Matrix (e.g. development of two pager, how/if matrix can be integrated into CVPIA SIT process)
- Bruce – send information on Steve Lindley's Prop 1 salmon fry monitoring project to subcommittee - DONE
- Bruce – update 2020 work plan based on Subcommittee's feedback - DONE
- K&W – circulate CSSP materials to CAMT and share CSSP info with Denise Reed - DONE
- ESSA – consolidate interview questions and information packet - DONE
- ESSA – send full, revised literature list to Subcommittee - DONE
- All – update geographic scope of CSSP to include Knights Landing and determine precise project boundaries (as per CAMT's feedback)
- Josh – send Delta monitoring examples to Natascia – DONE
- Pascale – invite Yumi, Tracy and ISB representative to present at Dec Salmon Subcommittee meeting - DONE
- Pascale – share 2018 Joint Proposal Solicitation awarded studies related to Chinook and Steelhead as well as relevant 2019 IEP work plan elements - DONE

Decisions Made:

- December meeting topics
    - Salmon action matrix
    - DSP presentation on Science Action Agenda and Delta Science Plan
    - ISB presentation on monitoring enterprise review
    - CSSP initial interview findings
    - Dr. Anna Sturrock's recently published findings on factors influencing straying and resilience of hatchery salmon (note: item proposed by Alison Collins post-meeting)
- January meeting topics (meet as scheduled even if CSSP interview and lit synthesis are not ready)
    - CVPIA presentation
    - CSSP report out on synthesis of interviews and literature review

Discussion Highlights:

1. Agenda Review and Updates

- Updates on Salmon Actions Matrix
    - Bruce, Carl and Renee to work on next steps, including:
        - following up with DWR
        - determining/prioritizing which actions should be further evaluated
        - sharing pared down list of actions with Subcommittee and CAMT
        - development of a two pager
    - Comments:
        - Consider integrating relevant elements of matrix into CAMT 2020 Workplan and/or CVPIA SIT model

2. Coordinated Salmonid Science Plan (CCSP) (NOTE: presentation was given to serve as both a project update to Subcommittee members and solicit feedback on presentation prior to November 19 CAMT meeting)

- Project update
    - Geography scope is limited to the Delta (including Yolo Bypass/Cache Slough complex and Knight's Landing)
    - Species/Run-type to be considered:
        - Winter-run Chinook Salmon
        - Spring-run Chinook Salmon
        - Steelhead
        - Fall-run Chinook Salmon
    - Life Stages include:
        - Yes - Migration (adult and smolt) and rearing survival
        - No - spawning or incubation
    - 13 out of 15 interviews have been scheduled.
    - Interviews will commence on November 14.
    - ESSA to send full, revised literature list to Subcommittee, members to provide feedback on additional materials to be reviewed.
    - Interview questions have been updated as follows:
        - Removing mention of specific tributaries; opened up language to indicate considering relevant upstream tributaries.
        - Updated priority of species listed.
        - Added sub-questions to get at greater detail from interviewees.
        - Added guiding questions people's rational for importance of uncertainties.
    - ESSA to consolidate informational packet into a single document that speaks to project purpose and lists interview questions and literature list.
- Solicit input regarding draft plan outline (NOTE: member comments and suggestions are organized by the section of the outline they pertain to. Not all sections of the outline were discussed at the meeting.)
    - General Feedback
        - Document should ultimately be no more than 20 pages.
        - Replicate formatting of Salmon Resiliency Strategy and California Water Action Plan.
        - Include appendices for more nuanced/detailed information.

        - One member commented that scientific certainty on what it takes for salmonids to exist is missing and requested a statement be included discussing the importance of spatial structure and life diversity.
    - A Landscape of Perils and Possibilities: Management Context for Delta Salmonid Science
        - Emphasize uncertainties revolving around straying and adult escape rates; data is available but it has not been applied.
        - Frame hatcheries as useful tool and recognize their importance (e.g., during droughts), but avoid focus on hatchery management.
        - Consider including considerations related to poaching and law enforcement.
    - Shedding Light on The Unknown: Key Salmonid Science Uncertainties and Opportunities
        - Organize this section to start with life stages and then identify uncertainties related to them
    - Roadmap to Resilience: Priority Science and Management Activities for Delta Salmonids
        - One member suggested other processes are not far enough along and would be too confusing to try to wrap them in at this point.
    - Looking Ahead: Next Steps for Science Supporting Management
        - Describe means to reduce uncertainties.

3. Sacramento River Science Partnership (SRSP) Science Plan

- SRSP was formed in 2018 to establish and maintain a science enterprise for voluntary collaborative research, modeling, monitoring, and synthesis relevant to salmonid and other in-river species recovery and water management on the main stem Sacramento River to facilitate joint learning and fact-finding between and among scientists and managers.
- SRSP is currently embarking on the development of science plan and has hired Denise Reed to assist in the development of the plan, which is expected to be released in September 2020.
- Members noted the limits of monitoring inherit in this study and the CSSP activities and that management actions should define geographic boundaries, not monitoring aspects.
- ESSA to establish line of communication and coordinate with Denise in the development of the SRSP science plan and the CSSP.
- SRSP will hold a science plan workshop in June 2020.
- Subcommittee and CAMT will be briefed on science plan updates as they become available.

4. CAMT 2020 Workplan

- Would be carried out over the course of a calendar year.
- Components include:
    - Ongoing, fully-funded technical studies
        a. Entrainment Studies (Adult Delta Smelt) – Study 4
        b. Fall Outflow
        c. SDM for Delta Smelt
        d. Coordinated Salmon Science Plan for the Delta
        e. WRLCM Workshops
    - New Technical Studies (continuation of ongoing discussions)

    a. Delta Smelt Science Plan Implementation – coordination with Float MAST and Float PWT
    b. USBR Prize Competition – Topic to be determined. Work would entail developing selection criteria and reviewing submittals.
  - BiOp Implementation Support
    a. Delta Smelt Sumer-Fall Habitat Action – review plans developed by the Delta Coordination Group – related to (b) above
    b. OMR Management – scope?
  - Additional CSAMP Priorities
    a. Support Implementation of Resiliency Strategies (CSAMP priority #2)
       - Supported by (1)(b)(c) and (d) above
    b. Support Near-term, No Regrets Salmon Actions (CSAMP priority #3)
       - Supported by (1)(d) above
    c. Initiate Conversation Regarding Oversight, Guidance, and Feedback on Delta Monitoring Schemes (CSAMP priority #5) – consider CSAMP as a communication venue for ongoing reviews.
  - Possible New Studies (suggested by CSAMP members)
    a. Entrainment for salmonids
    b. Entrainment for larval Delta Smelt
    c. South Delta barriers and habitat restoration
    d. Long-fin
    e. Other
- Member feedback
  - Schedule workshop for steelhead monitoring and directors meeting for predicting involuntary take, which CSAMP called out in BiOp.
  - Include SFEI rearing habitat study, particularly the fraction of populations that falls into different size classes. Work could be completed by synthesizing DGMF data and would support objectives of voluntary agreements.
  - Integration with Prop 1 funded projects.
  - Interest in pursuing San Joaquin basin production of steelhead production.
  - Adding information sharing opportunities and workshops around funding sources.
  - Information sharing on decision making tools, particularly those for real-time decisions.
  - Means to apply similar study on smelt behavioral monitoring to salmon.