

SAN JOAQUIN RIVER PARTNERSHIP

American Rivers

September 14, 2015

Audubon California

Defenders of Wildlife

Ducks Unlimited

FESSRO Floodway Ecosystem Sustainability Branch

Natural Resources
Defense Council

P. O. Box 942836

Sacramento, CA 94236-0001

Point Blue
Conservation Science

Attention: Stacy Cepello

Revive the San Joaquin

Re: Central Valley Flood System Conservation Strategy.

River Partners

Dear Mr. Cepello and FESSRO staff,

Sierra Foothill Conservancy

San Joaquin River Parkway
and Conservation Trust

The Bay Institute

The Nature Conservancy

The Trust for Public Land

Trout Unlimited

Tuolumne River Trust

Thank you for the opportunity to provide comments on the draft Central Valley Flood System Conservation Strategy (Strategy). Our organizations congratulate the Department of Water Resources (DWR) for completing this draft strategy, which articulates a progressive vision for supporting the health of California's rivers and dependent fish and wildlife populations while improving the safety and reliability of the state's flood system. We commend you for this effort and fully support the finalization of this document to help achieve the goal of integrated flood management in the Central Valley.

Over the years, our groups have strongly engaged in the public process to help develop the Central Valley Flood Protection Plan (CVFPP) and have emphasized two elements necessary for the Strategy to include in order for the CVFPP to achieve its legislated purpose and be successful. The first element we have championed was that the Strategy must include measurable objectives to enable setting regional and system-wide goals and measure progress over time. The second element was that in order to promote ecosystem recovery, the Strategy must look beyond mitigation that offsets impacts to opportunities that provide ecological uplift throughout the Central Valley and contribute to recovery and stability of native species populations and overall biotic community diversity. We are pleased to see that the draft Strategy seeks to address both of these elements.

Having reviewed the draft, we offer the following comments to help improve and advance the expedited completion of the Conservation Strategy. While the more general comments have been previously submitted by some members of our Partnership, we wanted to reiterate our support for these comments, and provide additional suggestions relative specifically to the San Joaquin River.

Julie Rentner
Partnership Coordinator
jrentner@riverpartners.org

General Comments

Provide guidance for using the objectives. The core strategy of the Conservation Strategy should be the application of Conservation Objectives to the CVFPP at both the regional scale, as presented in the regional plans, and at the basin scale, as presented in the Basin Wide Feasibility Study and State Systemwide Investment Approach (SSIA). The Conservation Strategy should provide guidance related to the application of those objectives at the regional and basin scale, and quantify the extent to which Regional Plan projects advance Conservation Strategy Measurable Objectives for each given region. We request that the Conservation Strategy document be revised to include a specific discussion of how these objectives will be integrated in a timely manner with the planning efforts mentioned.

Objectives based solely on the needs of special status species are not sufficient for long-term stewardship. The habitats and processes used as the basis for defining metrics and establishing conservation objectives should support a wide range of species needs and ecosystem functions beyond the immediate needs of the threatened and endangered species. The special status species habitat needs that were used to develop the objectives should be considered the minimum habitat needs required for the system design to initiate recovery of these species. Further, the process for developing objectives overlooked important “opportunities” by inappropriately applying a screening process of perceived acceptability or feasibility as seen with the FROA analysis for potential floodplain inundation in the Upper San Joaquin River. We recommend the following three actions to recognize the limitation of the objectives and to develop objectives that go beyond the needs of threatened species:

- 1) The current objectives should be re-characterized as the minimum conditions necessary to initiate the recovery of threatened species.
- 2) Re-define and label the “opportunity” in each conservation area as being the interim objective.
- 3) The Strategy should be revised for the 2022 update to the CVFPP to include a set of long-term and comprehensive objectives that integrates a broader range of species needs and includes a wider range of opportunities (such as the potential for reservoir reoperation to contribute or the need to look forward to address the consequences of climate change).

Furthermore, the Conservation Strategy should acknowledge the need to review and update these objectives as new science becomes available prior to the 2022 update. The possibility of revising the objectives is raised in the section on adaptive management (page 8-4), and the need to re-evaluate the objectives in light of new science about the function of floodplain ecosystems could be added to this section.

Define the time-frame for accomplishing the objectives. In Box 5-1, we appreciated the definition of the objectives: "This Conservation Strategy's objectives are to achieve enhancements of riverine and floodplain ecosystems (i.e., net improvements) through flood system modifications. They are specific and measurable, are intended to be attainable, are relevant to the SPFC, and include a time frame for achievement as guidance." However, despite recognizing the importance of defining a time frame for the objectives, the time-frame for the objectives is not clear and thus will not likely support effective integration and implementation as part of the CVFPP. For example, the reference to funding on page 8-13: "Full implementation of the SSIA will take 20–25 years or more; DWR is developing a long-term financing strategy to support that effort." A financing plan is critical to implementing projects. Without a specific near-term deadline for completion, it will be almost impossible to develop a realistic financing plan for constructing projects. We request that the Strategy be revised to include clearly articulated time frames within which the objectives are to be accomplished.

Objectives must be included in funding guidelines for current and future flood system grant programs and the evaluation process for current and future state investment in flood system improvements. While we recognize the future funding decisions are out of the scope of the Strategy, we strongly encourage DWR to identify incorporation of these well-developed Objectives into current and future funding decisions. Achieving these Objectives is in the interest of the California taxpayer, and is supported by the State legislature, but without a clear method for incorporation into the project funding process, we fear the Objectives will not be achieved.

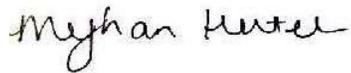
Below we have included specific comments and suggestions to broaden the accuracy and implementability of the Conservation Strategy as well as a collection of comments that are specific to the Upper San Joaquin River – the target geography of the San Joaquin River Restoration Program which is the focus of our collaborative. We realize that some of these specific comments will require additional analysis that is not feasible within the timeframe of the 2017 CVFPP and therefore identify them as suggestions for your consideration for future iterations of the Strategy, namely the 2022 update.

We appreciate and applaud the massive effort that has been invested in developing a Conservation Strategy that will be comprehensive and effective. We look forward to working with you to help achieve the goals of environmental stewardship in the Central Valley as they relate to flood protection.

Sincerely,



John Cain, AMERICAN RIVERS



Meghan Hertel, AUDUBON CALIFORNIA



Monty Schmitt, NATURAL RESOURCES DEFENSE COUNCIL



Rene Henery, TROUT UNLIMITED



Peter Vorster, THE BAY INSTITUTE



Julie Rentner, Coordinator for the SAN JOAQUIN RIVER PARTNERSHIP



Rachel Zwillinger, DEFENDERS OF WILDLIFE

Specific Comments

1. Appendix A. Regulatory Setting

- a. This section provides a detailed and clear description of the existing regulatory context; it could be improved by adding content that describes how the Strategy can be integrated with the design of flood protection projects and the permit process associated with those projects. Such integration will need to be site specific, but there is little guidance for how this can be accomplished. Adding examples of how the Strategy could be integrated during project design and permitting to Appendix A would improve its utility.

2. Appendix E. Invasive Plant Management Strategy

- a. **The need for weed treatments may be substantially greater than reflected in the document.** In some cases, the mapping appears to be incomplete, as there are known infestations that are not reflected in the information that is presented. As a result the targets for weed treatments are low, as are the budget needs. Committing to re-mapping weed infestations based on available information from partners in future iterations of the Strategy would provide more accurate estimates of needs and effectiveness of investment.
- b. **The suggested implementation plan may not have all the pieces to be effective.** The approach proposed in Appendix E is to implement the Invasive Plant Management Strategy on DWR Maintenance Areas and encourage other Local Maintaining Agencies (LMAs) to adopt the same plan of action. There are some major limitations for adoption, mainly related to funding and capacity of local agencies. DWR may need to take responsibility for a larger effort to be effective – either find implementation partners who can work with LMAs and provide funding for their work, or provide technical assistance directly to LMAs. For example, the document suggests that levee inspectors can be trained to collect invasive species data as well, but this may not be a viable option due to the training and capacity of the levee inspections staff. We suggest that future iterations of this Strategy include a more thorough strategy outlining potential for DWR to engage with partners to increase the capacity of LMAs outside of DWR to monitor and treat invasive species.
- c. **The Strategy describes how this invasive management plan is designed to benefit multiple interests, but the concept is not clearly described.** We suggest a section describing the interaction between invasive management and other benefits including flood conveyance, species recovery, and lowered operation and maintenance costs over time.

3. Appendix G – The Quantitative Objectives establish **minimum habitat targets for flood system design** relative to current and selected future flood system improvements. In order to be consistent with the goal of ecosystem uplift, these targets should instead be set to match the regional species restoration opportunities already identified through regional flood planning efforts, and collated in the RFMP Binders. In addition, these habitat targets must support

ecosystem function and incorporate the needs of a broader range of species over the long-term. We suggest the **following actions as part of revising the Strategy**:

- a. For the 2017 Final Conservation Strategy:
 - i. Rename current “*Objectives*” to “*Habitat Targets*”.
 - ii. Define “*Habitat Targets*” as the minimum habitat improvement potential within those specific areas identified as acceptable for inclusion in the footprint of the Basin-Wide Feasibility Studies.
 - iii. Rename current “*Opportunity*” estimates to conservation “*Objectives*”.
 - iv. Incorporate regional projects that support ecological uplift into estimation of the “*Objectives*”.
 - v. Revise the “*Objectives*” to comprise the entire area of opportunity for each metric identified for each flood region/ conservation zone and not only those specific areas identified as acceptable for inclusion in the footprint of the Basin-Wide Feasibility Studies.
- b. For the 2022 Conservation Strategy update:
 - i. Select target species as any species that satisfy **two** of the three specified criteria (as opposed to all three).
 - ii. Develop adaptive long-term objectives for an expanded list of species and ecosystem processes that take into consideration the expected changes to the system driven by climate change. Long-term objectives should be based on the total habitat potential within the CVFPP, informed by the needs of multiple species (as opposed to simply sensitive ones).
 - iii. Develop long-term objectives to promote climate change resiliency: Long-term objectives should consider the potential effect of system alterations on natural processes and ecosystem function, especially in light of climate change. System alterations that will promote climate change resilience and should be considered in the development of long-term objectives include, but are not limited to:
 - Reservoir reoperation;
 - Increased floodplain/channel connectivity via levee setback, levee removal, and passive and/or operational levee gates;
 - Use of bypasses and agricultural lands as functional wildlife habitat; and
 - Integration of the San Joaquin Restoration Program and other large conservation efforts into flood planning.

4. Appendix H – Historic vs. current rearing habitat availability should be calculated for the Upper San Joaquin

- a. The analysis of historic vs. current inundated floodplain habitat does not include the Upper San Joaquin. This analysis should be included and should inform objectives for the Upper San Joaquin River Region.

5. Appendix I – Floodplain Restoration Opportunities Analysis (FROA)

- a. We appreciate the effort that has gone into the Floodplain Restoration Opportunities Analysis. In addition to the work that has already been done to quantify areas where multiple benefit projects can be implemented, we suggest that Strategy should mention

groundwater recharge as an additional benefit. Pointing readers to the following website would encourage this added benefit to be considered in the sighting of flood protection projects:

<http://californiaagriculture.ucanr.org/landingpage.cfm?article=ca.v069n02p75&fulltext=yes>

- b. Floodplain Restoration Opportunities Analysis should include and identify areas appropriate for non-structural flood system improvements, such as levee breaches or levee removal. Levee setbacks and repairs can be prohibitively costly and may still limit habitat area within the channel in larger flood events. In addition, in regions such as the Upper San Joaquin, levees overtop or have high probability of failure under large flood events resulting in the inundation of vast areas outside the levees which then cannot properly drain back to the river. Levee breaches or removals coupled with flood easements can serve as an alternative to levee setbacks that is more cost effective and allows lands inundated when levees would otherwise overtop or fail to provide ecosystem benefits for fish and other species that would not otherwise be achieved. These approaches should be included in the suite of options considered as flood system improvement options that meet Strategy Objectives.

6. **Basin Wide Feasibility Study footprints and associated configurations should not be applied to Objective development** – The BWFS footprints and the SSIA area that informed them were developed prior to the Conservation Strategy’s Measurable Objectives. As such they were not designed to consider or maximize species conservation needs. In many cases, the BWFS designs do not even go so far as to incorporate the full range of potential for conservation benefits within a region as identified in the suite of projects comprised in the Regional Flood Management Plans. The BWFS designs are therefore inappropriate for application as a basis to estimate conservation potential within a region or basin, or to set Objectives. Instead, Objectives should be set as in comment 3 (above) and BWFS footprints should be designed to meet Objectives.

Upper SJR Specific comments:

1. **ES-8.** The Implementation Approach seems to be missing a critical element that enables integration with other flood management objectives. Specifically the identification of flood flow management and system operations to support natural ecosystem function. An example of this would be reservoir reo-operation. Another example would be to ensure sufficient flow capacities to enable geomorphic flows. Page 4-2 specifically states the Conservation Strategy did not address flows objectives. Given that flow is a primary driver of riverine ecosystems the lack of its inclusion would seem to undermine the ability to reliably predict the actual ecological outcomes of a physical action. Further work should be done to develop flow associated objectives.
2. **Figure 2.2** does not include data on historic acreage of floodplain rearing habitat in the Upper San Joaquin above the Merced River confluence. This data exists in the Sierra to the Sea Report and other places and should be included.
3. **Pg. 5-32.** The information regarding historic floodplain and riparian habitat is insufficient to support regional or system-wide planning. Information is needed about the historical acreage floodplain riparian, wetland and other riverine ecosystem types to existing acreages. These numbers are needed to understand the scale of the system and the relative potential for improvements.
4. **Pg. 5-34.** The use of the term "riparian" seems to include both stream-side riparian as well as floodplain riparian areas. If so this should be clarified by calling it Riparian floodplain however, there are significant differences between the two in terms of habitat and impacts on physical and biological processes and should be shown separately.
5. **Pg. 5-36.** The prioritization of most of the flood control structures as fish passage barriers has been done in the Upper SJR by the SJRRP in the recently completed Revised Framework for Implementation. All of the structures are not prioritized but most have and should be listed. These structures are clear opportunities and needs for integration of the SJRRP with the CVFPP.
6. **Pg. 5-36.** The description of projects that will be undertaken by the SJRRP needs substantially more information regarding flood project opportunities including specifically the 11 mile Reach 2B channel expansion, the 20 mile Reach 4B project, dozens of miles of levee maintenance and repair work. It is also important to discuss the seepage management program because it addresses high groundwater issues associated with the landscape having previously been wetland floodplains. The SJRRP will be spending more than \$600million on these projects into the future and represents a huge opportunity for multi-benefit flood protection projects.
7. **Table 5-38.** The Potential opportunity for floodplain inundation is inaccurate and does not include the largest Reach 4B alternative being explored which is 10,000 acres. This analysis should to be updated with existing information.
8. **Pg. 5-39. Table 5-13.** The table does not include objectives for inundated floodplain or riverine geomorphic processes. This information should be updated using the SJRRP Revised Framework for Implementation and other available information to complete this table. For inundated

floodplain consider including information about the Reach 2B and Reach 4B projects, restoration of floodplain areas in Reach 3 as well as lands near Firebaugh.

9. **Pg. 8-1. Implementation.** This section describes many concepts and actions that are essential for implementing the conservation strategy and monitoring progress. However, what seems to be missing is a clear process to ensure progress is made. Such processes or actions might include requiring regional planning efforts to develop projects that would achieve conservation objectives for their area as part of projects to reduce flood risks. Another option would be to dedicate a percentage of all CVFPP project funding go to multi-benefit projects that commensurately make progress toward regional conservation objectives relative to the total cost of the project. What has been provided is helpful but it seems to lack real requirements and therefore leaves actual progress toward implementation of the Conservation Strategy to wishful thinking.
10. **Pg. 8-19. Guidance for the Basin-wide feasibility studies and Regional Flood Management Plans.** This section highlights a significant challenge the conservation community and the Flood Board have been raising for several years which is that both of these processes have moved forward without the Conservation Strategy measurable objectives to guide planning and development of projects at both the regional and basin scales. The CVFPP needs to provide significantly greater guidance for how these processes will quickly integrate the Strategy's objectives. Furthermore, the reliance on the locally led RFMPs is a flawed approach. The RFMP's are not venues that provide an equal opportunity for all stakeholders to have input. As they are generally controlled by local flood control agencies, the RFMPs are biased toward solving the traditional problems these agencies have faced for years and are not inclined to take on new objectives related to conservation. The RMFP's could be a useful forum, but it would necessitate that the RFMPs be required to be fully inclusive of all significant stakeholders, including facilitating participation in all planning meetings with DWR.
11. **Pg. H-6. Figure 1-1.** The figure does not include information for the Upper San Joaquin River. While the USJR does not have a salmon doubling goal and the SJRRP objectives are being used instead, the floodplain rearing habitat information should be provided and footnoted to explain the difference in approach to this objective.
12. **Pg. j-4. Table 1-1.** The assessment for the SJRRP with respect to seasonal floodplains should be ++ indicating a significant relationship given the Program's priority to restore floodplain habitats.
13. **Pg. j-15. SJRRP.** While the reach of the river from Friant Dam to the Merced River Confluence is the focus for habitat restoration and fish passage projects, the rest of the mid and lower San Joaquin River are considered with respect to flows to support fish and water quality (See Paragraph 16a1 of the Settlement Agreement).
14. **Pg. J-15.** Section 2.1.5 states that specific acreage targets were not included as part of this objective. There are specific acreage targets provided by the Restoration Program that should be used to update and complete this section.
15. **Pg. L1-33. Table L1-4.** This list should be updated using the 2015 Revised Framework for Implementation and should also include juvenile floodplain rearing analysis, Reach 4B

alternatives analysis as well as other floodplain restoration opportunities in Reach 3.

http://www.restoresjr.net/wp-content/uploads/Reach4B_Project_Description_TM_20150716.pdf

The statement that the SJRRP estimates that it will need 500 acres of floodplain habitat to achieve the restoration goal is inconsistent with the numbers provided in the SJRRP 2012 Minimum floodplain Rearing Habitat Needs Analysis.

16. **Pg. L2-34.** The document states that "Recovery of target species *may* require 3,400 acres of additional floodplain habitat. This number is from the SJRRP *Minimum Floodplain Rearing Habitat Needs Analysis* and therefore reflects a minimum. The analysis used very conservative numbers by assuming higher mortality rates for juvenile fish than may have been used in FESSRO's analysis on other rivers. Further this analysis does not reflect the need for floodplain inundation to produce invertebrate food to support in channel rearing and other ecological benefits. As such, these numbers should be treated as absolute minimums. The historic floodplain acreages from the Sierra to the Sea or some other more detailed credible source should be used to provide this information.
17. **Pg. L3-4. Table L3-4.** The Potential Conservation Opportunities in the Upper SJR as identified by the BWFS and FROA need re-examination. The potential for floodplain inundation in both the river and bypasses are substantially under-represented here and must not be based on existing recent information including the Revised Framework for Implementation and the Reach 4B alternatives analysis,.