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May 2, 2019

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*Sent via email*

Subject: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE CONSULTATION  
REGARDING 2019 LOWER OWENS RIVER PROJECT SEASONAL HABITAT FLOW AND  
BLACKROCK WATERFOWL AREA FLOODED ACREAGE

The California Department of Fish and Wildlife (CDFW) has reviewed your Proposal for the *2019 Lower Owens River Project Seasonal Habitat Flow and Blackrock Waterfowl Area Flooded Acreage* (2019 Proposal) dated April 16, 2019. Your 2019 Proposal was received by CDFW on April 22, 2019 and reviewed thereafter. CDFW appreciates the opportunity to provide consultation on this matter. While CDFW does not oppose the Lower Owens River Season Habitat Flow recommendations and the recommendations for flooding at the Blackrock Waterfowl Management Area in 2019, CDFW continues to have concerns regarding the proposed actions. The 2019 Proposal is expected to perpetuate the failure to meet Lower Owens River Project (LORP) goals and does not address adaptive management recommendations from CDFW in correspondence dated January 3, 2019 and April 18, 2019. CDFW reiterates our previous recommendations to implement adequate adaptive management actions and requests incorporation of measures into a revised 2019 Proposal for immediate implementation. If adequate adaptive management is not implemented, CDFW will consider additional actions necessary to achieve LORP goals.

The following comments address issues impeding the achievement of Lower Owens River Project (LORP) goals.

Seasonal Habitat Flow:

CDFW understands that the 2019 Proposal aligns with the formula outlined in the 2004 LORP Environmental Impact Report (EIR). However, CDFW continues to be concerned that the LORP objectives are not being achieved by following the 2004 EIR hydrograph. The flushing flows in the LORP are intended to remove accumulated organic debris from the river, maintain channel width, (which creates scoured banks for riparian seedlings to germinate), and maintain topographic diversity (2004 EIR).

The *2019 Seasonal Habitat Flow Schedule* (peak of 200 cfs) on Page 2 of the 2019 Proposal defines a flow schedule for ramping, magnitudes, and duration. As stated in previous Seasonal Habitat Flow CDFW comment letters, CDFW believes this magnitude and schedule does not provide adequate stream flow to achieve the intended LORP seasonal habitat goals to create sufficient disturbance to establish and maintain native riparian vegetation and channel morphology.

As previously discussed, the EIR hydrograph recommendations were developed under the assumptions that:

- Base flows generate sufficient velocity (20 cm/s) to mobilize and transport fine sand and fine particulate organic matter (FPOM) with minimal deposition (Monitoring and Adaptive Management Plan, "MAMP");
- Habitat Flows would generate sufficient velocity to prevent encroachment from hardstem bulrush (*Schoenoplectus acutus*) (MAMP);

However, the shear-stress produced by the Seasonal Habitat Flow is not sufficient to result in bulrush scour during high flow events, resulting in significant increases to channel roughness (e.g. Manning's  $n$ ) within the LORP channel. By increasing channel roughness, bulrush has effectively resulted in a lower channel velocity and a substantial boundary layer, which prevents the transport of fine sediments and FPOM during base flows, resulting in the accumulation of hypoxic sediment. It is CDFW's belief that the increased roughness has caused the LORP channel to deviate from the results predicted the HEC-2 and HEC-6 flow models used to develop the flow regime, as both models are predicated on specific assumptions regarding channel roughness.

As discussed in our January 3, 2019 comment letter on the 2018 LORP Annual Report (attached), CDFW requested coordination between all 1997 Memorandum of Understanding (MOU) Parties to implement adaptive management actions this year. The MOU states that "should... reported information reveal that adaptive modifications to the LORP management are necessary to ensure the successful implementation of the project, or the attainment of the LORP goals, such adaptive modifications will be made." At this time, no such meeting has occurred, and despite widespread acknowledgement that the Seasonal Habitat Flow (SHF) is inadequate, no successful adaptive management actions have occurred.

Previous high flow events in summer months have led to extensive fish kills within the LORP (e.g. 2013 and 2017). In light of this year's above average snowpack and concern regarding summer high flows leading again to fish kills in 2019, CDFW requested that Los Angeles Department of Water and Power (LADWP) and Inyo County employ adaptive management actions starting immediately before water temperatures become elevated and additional fish kills occur again in 2019. CDFW also requested in a letter dated April 18, 2019 that LADWP initiate high flows in addition to the SHF, in early to mid-May 2019 for one to two weeks.

#### Blackrock Waterfowl Management Area (BWMA)

CDFW agrees that increasing flooded acreage to a total 500 acres within in the Winterton, Thibaut, and Drew Units is the least costly way to achieve the flooded acreage mandated by the MOU and Post-Implementation Agreement, and thus concurs with the proposed management for 2019.

CDFW believes the 2004 EIR objectives are not being met with current management. CDFW advises that habitat for indicator bird species would be improved by following the recommendations for seasonal wetland management made by LADWP (2015 LORP report) and CDFW (2015, 2016, 2017, and 2018 LORP Annual Report comment letters). LADWP's 2015 Report and CDFW's previous comments regarding BWMA recommend changing the management regime at BWMA. The best available science strongly supports seasonal wetland management for migratory waterfowl and shorebirds (Ducks Unlimited 2007, Olsen 2011). In addition, seasonal wetland habitat management (CWA 2015) has proven a decrease in water use at U.S. Fish and Wildlife Service (USFWS) and CDFW-operated wetland areas as well as a decrease in maintenance costs at these locations.

Management changes similar to those proposed by CDFW have resulted in increased water bird usage, decreased maintenance costs, and decreased water usage at CDFW-owned and operated Wildlife Areas. CDFW believes that these changes will have similar value at BWMA.

### Conclusion

CDFW has not received any response to our letters dated January 3, 2019 and April 18, 2019 or presentations by CDFW regarding adaptive management actions. We request a response and immediate implementation of a series of releases between 350 and 375 cubic feet per second occur over a one to two-week period prior to mid-May 2019 as identified in our April 18, 2019 letter or similar measure agreed to in consultation with CDFW to address the failure to meet LORP goals. Additionally, CDFW is requesting a meeting with the MOU parties to discuss the formation of a BWMA team including CDFW, Inyo County Water Department, LADWP, and a wetland management specialist, such as the California Waterfowl Association, to guide and implement adaptive management switch from perennial to seasonal wetland.

If you have any questions, please contact Nick Buckmaster at [nick.buckmaster@wildlife.ca.gov](mailto:nick.buckmaster@wildlife.ca.gov) or (760) 872-1110.

Sincerely,



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MOU Party Representatives  
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Trisha Moyer (CDFW)

Citations:

Kondolf, G.M. and Wilcock, P.R., 1996. The flushing flow problem: defining and evaluating objectives. *Water Resources Research*, 32(8), pp.2589-2599.

Los Angeles Department of Water and Power. 2004. *Lower Owens River Project Environmental Impact Report*.

Olson, B.W., 2011. *An experimental evaluation of cost effective moist-soil management in the Sacramento Valley of California*. University of California, Davis.

California Waterfowl Association. 2015. *Principles of Wetland Management*.

Takekawa, J.Y., Miles, A.K., Schoellhamer, D.H., Jaffe, B., Athearn, N.D., Spring, S.E., Shellenbarger, G.G., Saiki, M.K., Mejia, F. and Lionberger, M.A., 2005. South Bay Salt Ponds Restoration Project, Short-term Data Needs, 2003-2005 Final Report. *US Geological Survey, Vallejo, CA 270pp*.

Murphy, B.R. and Willis, D.W. eds., 1996. *Fisheries techniques* (2nd ed., p. 732). Bethesda, Maryland: American fisheries society.

GRINNELL, J., 1917. *Field Notes*. *University of California Records*