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March 12, 2024

California WDM
2121 Broadway
Sacramento, CA 95818

Via email: comments@CaliforniaWDM.org

Re: Comments on the California Wildlife Damage Management Draft EIR/EIS

Dear Sir or Madam:

River Otter Ecology Project, based in Marin County, CA, engages the public in supporting conservation and restoration by linking river otter recovery to the health of our watersheds through research, education, community science and advocacy. River otters, although not a protected species, are sentinel apex predators that use every part of watersheds, from headwaters to ocean. Their presence and success are important indicators of ecosystem function and environmental health.

During the past twelve years we have documented and researched the return of North American river otters to parts of the San Francisco Bay Area from which they were extirpated decades ago through trapping and habitat degradation. The recovery and return of these sentinel apex aquatic predators is a conservation success story, and their presence and success are important indicators of ecosystem function and environmental health.

Overall, we question the inconsistent and apparently arbitrary methodology by which “sustainable mortality thresholds” for target species are derived. It appears that the authors of the Draft EIR/EIS searched for any published report of such a threshold, regardless of the source, date, geographic focus, or purpose of the report. Having picked numbers out of a hat, so to speak, the EIR/EIS asserts, as examples, that the human-caused mortality of 2,900 black bears, 8,700 bobcats, 114,000 coyotes, 48,000 grey foxes, 115,000 red tailed hawks, and 557 mountain lions every year would not cause population-level impacts to the individual species. No attempts are made to consider the combined or cumulative impacts of these annual levels of human-caused mortality on biodiversity, local populations, local ecosystem processes, or local prey species abundance¹.

The impact analysis for river otters is illustrative of the defects in the approach the Draft EIR/EIS takes. The analysis relies on a single report² originally produced for the purpose of justifying the commercial harvest of river otters in Illinois. Using a model based on parameter values that were largely estimated or assumed, rather than directly observed, the report concluded that a 20% annual harvest rate would result in zero population growth even though the assumed pre-harvest annual growth rate was only 11%. The report explains this incongruous result as “an artifact of the particular modeling process used.” The report never uses the term “sustainable,” and in fact argues that a much lower threshold is appropriate for a commercial harvest. Nonetheless, the Draft EIR/EIS arbitrarily adopts this 20% threshold as the standard for California’s wildlife damage management plan.

¹ For background on the consequences of lethal removal, see Petition for Rulemaking submitted to USDA Wildlife Services by Animal Legal Defense Fund et al. in November 2023: <https://aldf.org/wp-content/uploads/2023/11/Petition-for-Rulemaking-to-USDA-APHIS-Wildlife-Services-11-21-23.pdf>

² Nielsen, C. K. (2016). Modeling population growth and response to harvest for river otters in Illinois. *Journal of Contemporary Water Research & Education*, 157(1), 14-22.

In contrast, empirical data from our long-term monitoring program³ for river otters in Marin County suggests that annual population change rates vary significantly at a local level. Across 14 study sites, we found annual growth rates ranging from a high of 10% to a low of -44%, with a median of 4%. Our empirical data suggest that 20% mortality from wildlife damage management and other human causes could in no way be considered sustainable for local river otter populations.

Similarly, the Draft EIR/EIS analysis points to benefits to fisheries resources such as rainbow trout from river otter removal without noting that stocking lakes with trout can attract river otters that would otherwise not be present⁴. Nor does the analysis consider the extent to which river otters consume invasive pest species such as Signal and Red Swamp crayfish⁵. Moreover, the total documented monetary loss attributed to river otters from 2010 to 2019 was \$12,239.80 (Table 1-2). Clearly, a statewide management program involving lethal removal is disproportionate to the perceived problem.

The analyses of other target species likely suffer from similar defects, and therefore the entire analytical framework of the Draft EIR/EIS is called into question.

Ultimately, the Draft EIR/EIS must be revised in order to cure its analytical defects. The revised Draft should include an Alternative that allows only the use of non-lethal operational and technical methods and assistance. Alternative 3 would already preclude lethal methods, but would allow lethal technical assistance. An Alternative also precluding lethal technical assistance was dismissed from consideration specifically and only because non-lethal

³ Carroll, T., Hellwig, E., & Isadore, M. (2020). An approach for long-term monitoring of recovering populations of Nearctic river otters (*Lontra canadensis*) in the San Francisco Bay Area, California. *Northwestern Naturalist*, 101(2), 77-91.

⁴ Garwood, J. M. (2013). Use of historically fishless high-mountain lakes and streams by nearctic River Otters (*Lontra canadensis*) in California. *Northwestern Naturalist*, 94(1), 51-66.

⁵ Grenfell, W. E. (1974). *Food habits of the river otter in Suisun Marsh, Central California* (Doctoral dissertation, California State University, Sacramento).

methods are considered intrinsic to the proposed program's needs and objectives. The entire Draft EIR/EIS appears to be structured to support lethal removal of wildlife in California "to prevent harm to agricultural resources and property," regardless of scientific evidence that lethal removal can and does have harmful and unintended consequences. If a new Alternative is not created, Alternative 5, No Project / Cessation of WS-California, should be adopted as the Proposed Project.

Respectfully,

A handwritten signature in cursive script, reading "Megan Isadore". The ink is dark and the signature is fluid, with a large initial 'M' and a trailing flourish.

Megan Isadore
Executive Director
River Otter Ecology Project