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This is a Comment on the **Fish and Wildlife Service (FWS) Proposed Rule: Migratory Bird Permits: Management of Conflicts Associated with Double-Crested Cormorants (Phalacrocorax auritus) Throughout the United States**

For related information, [Open Docket Folder](#)

Comment

The Oregon Department of Fish and Wildlife wishes to submit the three attached documents regarding the proposed rule: "Migratory Bird Permits: Management of Conflicts Associated with Double-Crested Cormorants (Phalacrocorax auritus) Throughout the United States." The documents include a comment letter, additional comments made on a pdf of the Draft EIS, and supporting data containing in an Excel spreadsheet. Thank you.

Attachments (3)

[Supplemental materials_ODFW comments_DCCO DEIS](#)

View Attachment:



[ODFW Comments_DCCO Proposed Rule DEIS_Final](#)

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[USFWS DCCO DEIS_ODFW additional comments](#)

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Public Comments Processing
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Subject: Comments regarding Federal Register Docket No. FWS-HQ-MB-2019-0103:
*Migratory Bird Permits, Management of Conflicts Associated with Double-crested
Cormorants (Phalacrocorax auritus) throughout the United States*

Dear U.S. Fish and Wildlife Service:

The Oregon Department of Fish and Wildlife (ODFW) thanks the U.S. Fish and Wildlife Service (USFWS) for the opportunity to provide comments regarding rulemaking associated with the Draft Environmental Impact Statement (DEIS) *Management of Conflicts Associated with Double-crested Cormorants*. We applaud the efforts of USFWS to provide a new permit system that will give states increased authority to manage conflicts associated with double-crested cormorants (cormorants). Overall, ODFW supports the adoption of a modified version of Alternative A, the so-called preferred alternative, because it would offer increased flexibility for states to address cormorant conflicts with fish and other resources, while at the same time ensuring stability of the regional double-crested cormorant population. However, we have numerous concerns regarding the preferred alternative that we would like to see addressed in the final rule. Our comments herein are broadly categorized under four main themes: 1) agency interest and permitting language, 2) analysis of maximum allowable take, 3) allocation of allowable take, and 4) monitoring. Along with this letter, we have also submitted supplemental materials including an Excel spreadsheet that includes supporting information and a pdf copy of the DEIS that includes additional ODFW comments.

1. Agency interest and permitting language

ODFW remains interested in expanded authority to address cormorant conflicts with fish, and is generally supportive of Alternative A, the preferred alternative. However, the language associated with this alternative is vague in several areas, and needs clarification. First, it is somewhat unclear which entities will remain eligible to receive individual depredation permits for those states that do choose to obtain a special statewide depredation permit. ODFW does not have the resources to coordinate

permitting for non-fisheries related conflicts for other entities within Oregon, and thus wishes to reaffirm the position stated in its March 6, 2020, comment letter: ODFW does not desire the authority to issue take permits to other entities within Oregon to address aquaculture conflicts, property damage, nuisance, or human safety issues. Thus, we request the preferred alternative include a specific statement affirming the continued availability of USFWS-issued individual depredation permits for entities within states that choose to obtain a special depredation permit; such entities could include private individuals, businesses, and state or local government agencies. Second, the list of potential subpermittees listed on page 12 of the DEIS could unnecessarily constrain ODFW from carrying out management activities. For example, it is unclear why non-incorporated companies, other potential contractors, or local governments were excluded from the list of potential subpermittees. Thus, ODFW recommends the language related to subpermittees read: "Subpermittees may be, but are not limited to, employees of state and tribal wildlife agencies, WS [USDA Wildlife Services] employees, and employees of federal and state agencies or private incorporated companies specializing in wildlife damage abatement."

The current wording of the DEIS suggests take intended to benefit fish species listed as threatened or endangered under federal or state endangered species legislation would be allowed under the proposed rule. We request coverage be specifically extended to fish species of management concern [e.g. sensitive species] to provide flexibility to manage cormorant predation on these species if necessary.

The language regarding the need for non-lethal methods to be used prior to lethal take (p. 88) needs to be clarified to meet the needs of managers. There are certain cases where take is essentially unavoidable, or where there is significant evidence that would indicate, *prima facie*, the need for take. For example, frightening cormorants from an incipient colony site would directly and unavoidably lead to loss of active nests. Yet this type of management would be far preferable to attempting to haze and lethally take foraging cormorants associated with the colony, both in terms of management effectiveness and the amount of lethal take that would ultimately be required to resolve the conflict. Further, the amount of non-lethal hazing that would be required before lethal tools are used is unclear, as is whether non-lethal tools would be required at all management sites. For example, if it is known that combining lethal take with non-lethal harassment is the best overall strategy for reducing certain types of conflict, it makes little sense to focus on less-effective non-lethal strategies at a site just to prove that these methods are inadequate.

Finally, ODFW does not believe Alternative C, which includes a so-called depredation order for aquaculture, is appropriate for the western population of double-crested cormorants (western population). Cormorant abundance in western states is approximately an order of magnitude lower compared with eastern states, and expanded allocation of take associated with aquaculture permitting in the West could unnecessarily restrict take needed to protect special-status fish species and

other public resources. Furthermore, the number of aquaculture conflicts in western states is apparently low, and does not appear to justify a special permitting process.

2. Analysis of maximum allowable take

The sustainable potential take level proposed in the DEIS for the western population of double-crested cormorants is 8,881 individuals per year; this figure represents about four times the currently allowable take of approximately 2,300 individuals annually. However, this proposed increase in potential take is not consistent with available information for the western population, but rather appears to represent a serious overestimate. Overestimation of potential take is a concern because it could promote overharvest, which would 1) jeopardize the stability of the regional double-crested cormorant population and 2) interfere with planning efforts by managers to address ongoing conflicts; that is, a rapid change in the western population as a result of overharvest could unexpectedly force a reduction in available take. The effect of this latter scenario could delay or fragment management efforts, and thus thwart longstanding attempts to reduce predation impacts in areas with the most extensive conflicts, particularly the Columbia River estuary.

The first issue with the USFWS estimate of potential take is that the data used to parameterize the take model appear inappropriate for the western population. Rather than using available region-specific data to populate the model, the authors instead use a limited sample from the Great Lakes region to calculate the same maximum rate of growth (r_{\max}) for all 5 cormorant populations within the conterminous United States. The resultant point estimate for r_{\max} corresponds to an annual growth rate of 43%, a figure far higher than appears credible for the western population based on observed region-specific demographic and population growth rates. In response, ODFW performed its own analysis to calculate credible estimates for r_{\max} in the western population, using two complementary methods: 1) the mathematical methods of Slade et al. (1998), for which we incorporated existing demographic data contained within the Army Corps of Engineers' 2015 Final Environmental Impact Statement, *Double-crested Cormorant Management Plan to Reduce Predation of Juvenile Salmonids in the Columbia River Estuary* (Columbia Management Plan), and 2) the generalized equation for population growth at discrete intervals (Dinsmore and Johnson, 2012), for which we incorporated observed cormorant abundance data in the Columbia River estuary, a well-studied area that previously experienced population growth that likely approached r_{\max} for the region. For the latter method, we chose to analyze cormorant abundance in the Columbia River estuary over 1979–2006, a period that corresponds with the phase of maximum annual growth for a logistic curve fitted to the data (i.e. the phase of logistic growth prior to the population approaching carrying capacity). During this period, the abundance of double-crested cormorants within the estuary increased from 131 to 13,983 breeding pairs. The resulting estimates for r_{\max} were 0.14 and 0.18 using methods 1 and 2, respectively, far lower than estimated in the DEIS ($r_{\max}=0.3577$), suggesting error associated with r_{\max} in the DEIS model may overestimate potential take by 100% or more for the western population. Details

regarding ODFW estimates for r_{\max} are provided in a supplemental document submitted with this comment letter.

A further issue with the DEIS estimate is that it appears to be based on the questionable assumption that the western population could currently support as many cormorants as the period prior to implementation of the Columbia Management Plan. This assumption is illustrated by the parameter values for population size appearing in Table E-1, where the estimate for 2014 (36,719 breeding pairs), the year prior to implementation of the Columbia Management Plan, was included in a possible range of future scenarios. However, a detailed model presented in Appendix E-2 of the Columbia Management Plan indicates the point estimate for expected carrying capacity for the region would likely be about 22,450 breeding pairs following implementation of the second phase of management on East Sand Island (USACE 2015), which began in 2018. No explanation is given in the DEIS for the disparity in assumed carrying capacity compared with the previous estimate in Columbia Management Plan. In any case, regional population monitoring coordinated by USFWS and the Pacific Flyway Council during 2017–2019 suggests the current carrying capacity for the region is consistent with modelling for the Columbia Management Plan (USACE 2015). Consequently, error associated with credible abundance in the DEIS model likely inflates the minimum number of cormorants that compose the western population (N_{\min}) by 50% or more, in turn inflating the potential take level for the region by an equivalent margin. This error would be compounded with the very large error associated with the DEIS estimates of r_{\max} discussed previously. To remedy error associated with minimum population size, ODFW recommends basing N_{\min} on point estimates for regional abundance in 2018 and 2019, the only two years of data following habitat reduction on East Sand Island or, alternatively, on estimates related to future carrying capacity associated with modelling in Appendix E-2 of the Columbia Management Plan.

Additional information suggests carrying capacity for the western population may have declined in recent years, primarily as a result of disturbances of colony sites by bald eagles and humans, and potential loss of some inland habitats as a result of reduced water availability (Adkins et al. 2014). In Oregon, double-crested cormorant abundance along the Pacific coast south of the Columbia River estuary has declined by 20-30% since 2009, with disturbances by bald eagles an apparent major contributing factor. Further, bald eagle disturbances seem to have played a significant role in the poor productivity and pervasive colony failures experienced during 2016–2020 on East Sand Island, a site that recently supported nearly 40% of the entire western population. Anticipated management on the Astoria-Megler Bridge, a rapidly growing colony site in the Columbia River estuary that probably supports at least 15–25% of the current western population, will likely push cormorants back to East Sand Island. However, it is currently unclear whether East Sand Island will actually be able to support these individuals in the future, calling into question whether the Columbia River estuary as a whole will continue to be capable of supporting a large fraction of the western population. Additionally, available survey data shared with ODFW by USFWS indicates that 50 of 72 “list frame” colonies

distributed across the western population have declined since 2014. While new colonies may be offsetting part or all of this decline, a complete analysis of existing data is needed to clarify regional trends. Overall, the weight of available evidence seems to suggest a recent and perhaps ongoing decline in double-crested cormorant carrying capacity in western states, indicating an allowance for this may be necessary when calculating potential take.

Because of the cumulative influence of the issues discussed above, ODFW believes the sustainable potential take level for the western population may be at least 50–75% lower than the 8,881 individuals specified in DEIS. Consequently, ODFW recommends a scientifically rigorous reanalysis of allowable take for the western population using appropriate regional data before a change to the current take level (ca. 2,300 individuals) is considered. Further, we recommend USFWS thoroughly investigate the interplay between a potentially ongoing change in regional carrying capacity and the ability of the potential take model to accurately determine potential take. Further, we recommend a geographically explicit analysis of existing survey data for 2014–2019 to determine the extent and significance of apparent declines across a majority of “list frame” colonies across the region, and their potential effects on available take. Finally, detailed technical knowledge related to the western population is probably difficult to marshal for many entities, especially those who have not had direct involvement with recent cormorant management in the Columbia River estuary, an area that has been a primary driver for the dynamic changes experienced by this population over the last twenty years. Thus, we request a more transparent presentation of the potential take analysis that would provide opportunity for a broader audience to comment on the model.

3. Allocation of available take

The method by which take will be allocated across the western population is unclear from the DEIS and needs to be clarified. To reiterate our letter from March 6, 2020, we continue to believe take to protect special-status resources should have first priority.

4. Monitoring

We recognize the importance of monitoring to ensure the long-term stability of the regional double-crested cormorant population. Ongoing monitoring and post-management monitoring will be critical to the success of the proposed permitting process. Therefore, we request that USFWS ensure the regional monitoring strategy is strengthened and tested before any changes in policy or increase in take are implemented. The current monitoring strategy for the western population is only designed to detect a 5% annual change over ten years, and thus may be inadequate to accurately represent the response of the western population to changes in take policy. In particular, we recommend the monitoring strategy be designed to detect much smaller changes in regional cormorant abundance, as this would reduce the likelihood of a dramatic population impact and would allow for nuanced application of adaptive management. An enhanced monitoring plan will require careful

forethought and resource commitments from USFWS and states, stressing the need for a collaborative approach to monitoring. Finally, any expectation of monitoring and reporting needed to implement the proposed new permit must be backed with a robust program of federal funding to support the monitoring activity for its duration.

Again, we greatly appreciate the opportunity to comment on this scoping notice. If you have any questions regarding our comments, please do not hesitate to contact our biologist that specializes in avian predation issues, James Lawonn, at 503-842-2741 ext. 251.

Sincerely,

A handwritten signature in blue ink, reading "Curtis E. Melcher". The signature is fluid and cursive, with the first name "Curtis" being the most prominent part.

Curtis E. Melcher
Director

Citations

Adkins, J. Y., D. D. Roby, D. E. Lyons, K. N. Courtot, K. Collis, H. R. Carter, W. D. Shuford, and P. J. Capitolo. 2014. Recent population size, trends, and limiting factors for the double-crested cormorant in western North America: double-crested cormorant population trends. *The Journal of Wildlife Management* 78:1131–1142.

Dinsmore, S. J., and D. H. Johnson. 2012. Population analysis in wildlife biology. Pages 350–380 in N. L. Silvy, editor. *The Wildlife Techniques Manual*. 7th edition. John Hopkins University Press, Baltimore, Maryland.

Slade, N. A., R. Gomulkiewicz, and H. M. Alexander. 1998. Alternatives to Robinson and Redford's method of assessing overharvest from incomplete demographic data. *Conservation Biology* 12:148–155.

USACE (U.S. Army Corps of Engineers). 2015. Double-crested cormorant management plan to reduce predation of juvenile salmonids in the Columbia River estuary. Final Environmental Impact Statement. U.S. Army Corps of Engineers, Portland, Oregon.