

1 **THE UNITED STATES DISTRICT COURT**  
2 **FOR THE DISTRICT OF COLUMBIA**

3  
4 KEN STROMBORG, BILL KOONZ, )  
5 JIM LUDWIG, MARK TWEEDALE, )  
6 DENNIS WILD and PUBLIC )  
7 EMPLOYEES FOR ENVIRONMENTAL )  
8 RESPONSIBILITY, )

9 )  
10 Plaintiffs, )

11 )  
12 vs. )

13 )  
14 UNITED STATES FISH AND WILDLIFE )  
15 SERVICE, an administrative agency of the )  
16 United States Department of the Interior )

17 )  
18 and )  
19 )

20 DAN ASHE, Director, United States )  
21 Fish and Wildlife Service, in his Official )  
22 Capacity, )

23 )  
24 Defendants. )  
25 )  
26 )

Case No.

COMPLAINT FOR DECLATORY  
AND INJUNCTIVE RELIEF AND  
VACATUR

October 29, 2014

27 **COMPLAINT**

28 Plaintiffs Ken Stromborg, Bill Koonz, Jim Ludwig, Mark Tweedale, and Dennis Wild, on  
29 their own behalf; and Public Employees for Environmental Responsibility on behalf of itself and  
30 its members, allege as follows:

31 **NATURE OF ACTION**

32 1. This action concerns the Defendants' authorization of the killing of tens of  
33 thousands of double-crested cormorants (*Phalacrocorax auritus*) without adequate review under  
34 the National Environmental Policy Act (NEPA). Defendant U.S. Fish and Wildlife Service  
35 (FWS or "the Agency") recently renewed the Aquaculture Depredation Order (AQDO, 50 C.F.R.  
36 21.47, enacted in 1998) and the Public Resource Depredation Order (PRDO, 50 C.F.R. 21.48,

1 enacted in 2003) (collectively, “the Orders”), which authorize freshwater commercial  
2 aquaculture producers, State fish and wildlife agencies, federally-recognized Tribes, and United  
3 States Department of Agriculture (USDA), Animal and Plant Health Inspection Service  
4 (APHIS), Wildlife Services to kill double-crested cormorants (DCCOs). FWS renewed the  
5 AQDO in 2003 concurrent with the initial promulgation of the PRDO after issuing a Final  
6 Environmental Impact Statement (2003 FEIS). In 2009, FWS extended the Orders for five  
7 additional years based on an environmental assessment (EA). Plaintiffs now challenge FWS’s  
8 *second* five-year extension of the Orders based on an insufficient EA and because of the  
9 Agency’s failure to produce an environmental impact statement (EIS).

10       2.       FWS has violated NEPA by engaging in a major federal action significantly  
11 affecting the quality of the human environment without preparing an EIS as required by NEPA.

12       3.       FWS has additionally violated NEPA by relying upon an EA that is insufficient to  
13 justify FWS’ Finding of No Significant Impact (FONSI) for the grant of a second five-year  
14 extension of the Orders. First, the 2014 FEA fails to show that DCCO suppression measures  
15 over the past decade have had an appreciable impact on the fish populations that such measures  
16 were supposed to protect. Thus, the EA fails to show that the “need” to reduce DCCO  
17 populations that FWS deemed to exist in 2003 still continues today. Second, the EA fails to  
18 address many factors that make the impact “significant” under NEPA, thereby requiring an EIS;  
19 these factors include the uncertainty of the effects on the environment, the controversial nature of  
20 the issue, the degree to which a second extension without full NEPA review may establish a  
21 precedent for future actions, and the magnitude of environmental consequences such as the  
22 introduction of lead into sensitive aquatic environments, the effects of state implementation  
23 programs that lack take limits and sufficient oversight, and the effect upon co-nesting and look-

1 alike birds. Additionally, the 2014 FEA considers only three alternatives, none of which  
2 includes modification of the Orders or other mitigating measures that commenters presented.  
3 Finally and fundamentally, FWS renewed the Orders based on the conclusion that killing tens of  
4 thousands of DCCOs makes a significant impact on the goals purportedly to be achieved, yet  
5 FWS simultaneously asserts that the continued slaughter of these birds has no “significant  
6 impact” under NEPA. Such an oxymoron of semantics is antithetical to both the spirit and the  
7 letter of NEPA. For these reasons, FWS’s action is arbitrary, capricious, contrary to law, and  
8 therefore violates NEPA and the Administrative Procedure Act (APA).

9 4. Plaintiffs seek a declaration that Defendants have violated NEPA and the APA.  
10 Plaintiffs also seek vacatur of the Orders’ five-year extensions until Defendants have  
11 satisfactorily fulfilled their statutory obligations under NEPA.

12 **JURISDICTION AND VENUE**

13 5. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C  
14 § 1331 (federal question) and 28 U.S.C. § 2201 (declaratory judgment). Venue in this Court is  
15 proper under 28 U.S.C. § 1391(e). Defendants, having authority over the action or inactions  
16 alleged herein, have offices located in this judicial district.

17 **PARTIES AND STANDING**

18 6. Plaintiff PUBLIC EMPLOYEES FOR ENVIRONMENTAL RESPONSIBILITY  
19 (PEER) is a national nonprofit organization, based in Washington, D.C. with field offices  
20 throughout the United States, including in Florida and Tennessee, states in which the Orders  
21 authorize the killing of DCCOs. PEER serves and protects current and former federal and state  
22 employees of land management, wildlife protection, and pollution control agencies who seek to  
23 promote an honest and open government and help hold governmental agencies accountable for

1 faithfully implementing and enforcing the environmental laws entrusted to them by Congress.  
2 PEER represents thousands of local, state, and federal government employees nationwide, in  
3 addition to ordinary citizens who support PEER's work. In addition to partaking in recreational  
4 activities involving DCCOs, members of PEER research and photograph DCCOs in many of the  
5 twenty four states that the Orders impact.

6 7. FWS's decision to reauthorize the Orders without first conducting a full EIS  
7 injures the recreational, professional, and educational interests of those PEER members who  
8 regularly view, study, and photograph these animals in the wild.

9 8. Plaintiff KEN STROMBORG is a Wisconsin resident and retired Fish and  
10 Wildlife Service Biologist with a Ph.D. and 40 years of experience as a professional wildlife  
11 biologist. He continues to practice his profession post-retirement from the federal government,  
12 conducting research and participating in professional activities as a volunteer. Dr. Stromborg  
13 conducted research on the ecotoxicology of pollutants in the Great Lakes using DCCOs as a  
14 sentinel species for approximately fourteen years, which led to a population research program at  
15 FWS for approximately seven years that continues today. To date, his research for FWS has  
16 resulted in 17 publications in peer reviewed scientific journals, 10 technical presentations at  
17 scientific meetings, and 23 poster presentations. This included detailed studies of several DCCO  
18 populations as recently as the summer of 2014. He has banded 28,000 cormorants for population  
19 studies and will continue studying DCCOs in the future. FWS's violations of law harm Dr.  
20 Stromborg's scientific interests in studying DCCOs in the Great Lakes region. The unscientific  
21 basis of the FWS action also offends his ethical and aesthetic sensibilities as a dedicated wildlife  
22 professional and environmentalist. He submitted comments as a member of the public on the  
23 2009 EA, the 2012 Notice of Intent to produce a Supplementary EIS, and the 2014 EA and draft

1 decision. Earlier, while still employed by FWS, he participated in a variety of FWS forums  
2 concerning DCCO management actions.

3           9.       Plaintiff BILL KOONZ is a retired wildlife biologist and resident of Wisconsin.  
4 During his 30 year career, Mr. Koonz studied colonial waterbirds, including DCCOs, and visited  
5 hundreds of colonies, banded birds, took aerial photos, collected over 10,000 food samples, and  
6 collected eggs for pollution studies and studies on the incidence of a defect that produces crossed  
7 bills. Although his major work was in Manitoba where some 200,000 pairs of cormorants breed  
8 annually, he also visited sites on Lake Michigan off Wisconsin. He has authored dozens of  
9 papers and presentations related to DCCOs and waterbird management. More recently, Mr.  
10 Koonz submitted comments on the 2014 EA, and continues to advise and assist people currently  
11 involved in DCCO research. FWS's violations of law injure the recreational, professional, and  
12 academic interests of Mr. Koonz.

13           10.       Plaintiff JIM LUDWIG is an ecotoxicologist who holds a Ph.D. in ecology and  
14 who has observed and studied DCCOs consistently since 1976. Although he currently resides in  
15 Canada, much of his career focused on Michigan and Wisconsin. Dr. Ludwig has published two  
16 peer-reviewed papers on DCCO population analysis, and two papers on the DCCO diet in the  
17 upper three Great Lakes from May through August samplings (one peer-reviewed and the other a  
18 Michigan Department of Natural Resources [MDNR] in-house analysis that was reprinted in  
19 summary form in Wildlife monographs under MDNR senior author Glen Belyea). Additionally,  
20 Dr. Ludwig published nine peer-reviewed papers on contaminant effects in DCCOs and other  
21 species as they relate to fisheries interaction; one of these is among the 50 most cited papers in  
22 the entire contaminant literature. Dr. Ludwig also published a book entitled, *The Dismal State of*  
23 *the Great Lakes: An ecologist's analysis of why it happened and how to fix the mess we have*

1 *made.* (XLibris 2013.) This book focuses on the on the natural history and politics of the Great  
2 Lakes system, much of it illustrated by Dr. Ludwig's lifelong interest in colonial bird ecology.  
3 The Ludwig family has been involved in bird banding and research for at least three generations  
4 and their data have been vital to much of what the scientific community knows about these birds  
5 in this ecosystem. In the course of his studies, Dr. Ludwig banded over 74,000 DCCO chicks.  
6 Since 1996, Dr. Ludwig has continued to observe and study DCCOs in the Great Lakes region  
7 and plans to continue doing so in the future. FWS's violations of law harm Dr. Ludwig's  
8 recreational and academic interest in viewing and studying DCCOs in the Great Lakes region.

9 11. Plaintiff MARK TWEEDALE is a birder, wildlife enthusiast, and Wisconsin  
10 resident. He spends roughly two to four hours every day observing nature from an observation  
11 tower on his property on Dead Horse Bay in Wisconsin. When DCCOs are present on the bay,  
12 Mr. Tweedale observes their behavior on a daily basis, and in recent years has noted a significant  
13 decline in the number of DCCOs present. He is also a recreational fisher and feels that  
14 government efforts to make fishing easier by eliminating predators are profoundly misguided and  
15 negatively impact his fishing experience. FWS's violations of law injure the recreational  
16 interests of Mr. Tweedale.

17 12. Plaintiff DENNIS WILD resides in New York and is a birder, recreational  
18 fisherman, and wildlife enthusiast. Mr. Wild observes and photographs DCCOs several times  
19 per year, in both New York and Massachusetts. Mr. Wild also authored a book on DCCOs, *The*  
20 *Double-Crested Cormorant: Symbol of Ecological Conflict* (University of Michigan Press,  
21 2012), which featured a number of photographs he had taken of DCCOs. Mr. Wild intends to  
22 continue observing and photographing DCCOs in the future. As a fisherman, Mr. Wild does not  
23 see the DCCO as a competitor, but as an enhancement to the outdoor experience. FWS's

1 violations of law harm Mr. Wild’s recreational and professional interest in viewing and  
2 photographing DCCOs in New York’s Hudson Valley Region.

3 13. Defendant UNITED STATES FISH AND WILDLIFE SERVICE is the Federal  
4 agency responsible for protecting, restoring, and managing migratory bird populations. In doing  
5 so, FWS must comply with NEPA and the APA.

6 14. Defendant DAN ASHE, Director, UNITED STATES FISH AND WILDLIFE  
7 SERVICE, is ultimately responsible for the challenged Orders and the agency’s compliance with  
8 NEPA.

9 15. The above-described academic, aesthetic, professional, and recreational interests  
10 of the Plaintiffs have been, are being, and will continue to be adversely affected and irreparably  
11 injured by the Defendants’ failure to prepare an EIS and by Defendants’ reliance upon an  
12 insufficient EA to issue a FONSI and approve a second extension of the Orders.

### 13 **STATUTORY FRAMEWORK**

#### 14 ***Migratory Bird Treaty Act***

15 16. The Migratory Bird Treaty Act (MBTA), 16 U.S.C. § 703 *et seq.*, implements  
16 several international migratory bird-related treaties as law, including the treaty applicable to  
17 double-crested cormorants: the Convention between the United States of America and the United  
18 Mexican States for the Protection of Migratory Birds and Game Mammals, U.S.-Mex., Feb. 7,  
19 1936, 50 Stat. 1311, amended on February 7, 1936, U.S.-Mex., Mar. 10, 1972, 23 U.S.T. 260.

20 17. The MBTA makes it “unlawful at any time, by any means or in any manner,”  
21 *inter alia*, to “take” birds listed in the relevant treaties. 16 U.S.C. § 703(a). To “take” a bird  
22 means “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt,  
23 shoot, wound, kill, trap, capture, or collect” it. 50 C.F.R. § 10.12.

1           18.     The MBTA gives the United States Secretary of the Interior the authority to  
2 promulgate regulations allowing the taking of birds to an extent compatible with the conventions  
3 and based upon due regard for a variety of listed factors. 16 U.S.C. § 704. This authority has  
4 been sub-delegated by the Secretary to FWS. *See* 50 C.F.R. § 10.1.

5 ***National Environmental Policy Act***

6           19.     NEPA is the “basic national charter for protection of the environment.” 40 C.F.R.  
7 § 1500.1(a). The NEPA process is meant to “help public officials make decisions that are based  
8 on understanding of environmental consequences, and to take actions that protect, restore, and  
9 enhance the environment.” *Id.* § 1500.1(c).

10          20.     To accomplish these purposes, NEPA requires all federal agencies to prepare a  
11 “detailed statement” regarding all “major federal actions significantly affecting the quality of the  
12 human environment,” 42 U.S.C. § 4332(C), including situations where several separate actions  
13 may have a cumulatively significant impact on the environment. 40 C.F.R. § 1508.27(b)(7). This  
14 “detailed statement” is commonly known as an environmental impact statement. Council on  
15 Environmental Quality (CEQ) regulations list a number of factors that an agency must consider  
16 in evaluating whether an action will have a significant impact on the human environment such  
17 that the agency must prepare an EIS. 40 C.F.R. § 1508.27.

18          21.     The CEQ regulations define the term “significantly” as used in NEPA to require  
19 consideration of the intensity of the impact, including factors such as:

- 20           a.     “The degree to which the effects on the quality of the human environment are  
21                 likely to be highly controversial,” 40 C.F.R. § 1508.27(b)(4);
- 22           b.     “The degree to which the possible effects on the environment are highly  
23                 uncertain or involve unique or unknown risks,” 40 C.F.R. § 1508.27(b)(5);



- 1 c. “The degree to which the action may establish a precedent for future actions  
2 with significant effects or represents a decision in principle about a future  
3 consideration,” 40 C.F.R. § 1508.27(b)(6); and
- 4 d. “Whether the action threatens a violation of Federal, State, or local law or  
5 requirements imposed for the protection of the environment,” 40 C.F.R.  
6 § 1508.27(b)(10).

7 22. Agencies may prepare an environmental assessment in order to determine whether  
8 an EIS is necessary. 40 C.F.R. § 1501.4. An EA serves, *inter alia*, to “[b]riefly provide  
9 sufficient evidence and analysis for determining whether to prepare an environmental impact  
10 statement or a finding of no significant impact,” 40 C.F.R. § 1508.9(a)(1), and must discuss the  
11 need for the proposal, alternatives as required by section 102(2)(E) of NEPA, the environmental  
12 impacts of the proposed action and alternatives, and a listing of agencies and persons consulted.  
13 40 C.F.R. § 1508.9(b).

14 23. If an agency decides not to prepare an EIS, it must prepare a finding of no  
15 significant impact, which explains the agency’s reasons for its decision. 40 C.F.R. §§ 1501.4(e);  
16 1508.13.

17 24. NEPA further provides that agencies “shall . . . study, develop, and describe  
18 appropriate alternatives to recommended courses of action in any proposal which involves  
19 unresolved conflicts concerning alternative uses of available resources.” 42 U.S.C. § 4332(2)(E).  
20 This requirement is independent of the determination whether or not to prepare an EIS. An  
21 alternatives analysis must be prepared if an EA is required. *See* 40 C.F.R. § 1508.9(b).

22 25. NEPA’s implementing regulation at 40 C.F.R. § 1500.1(b) provides in part that:  
23 “NEPA procedures must ensure that environmental information is available to public officials

1 and citizens before decisions are made and before actions are taken. The information must be of  
2 high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are  
3 essential to implementing NEPA. . . .”

4 26. The CEQ regulations at 40 C.F.R. § 1506.1 further provide that: “(a) Until an  
5 agency issues a record of decision [on an EIS] ... no action concerning the proposal shall be  
6 taken which would: (1) Have an adverse environmental impact; or (2) Limit the choice of  
7 reasonable alternatives.”

8 27. Even after a NEPA process is completed, an agency must prepare supplements to  
9 draft or final EISs when “significant new circumstances or information relevant to environmental  
10 concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(c)(ii).

#### 11 ***Administrative Procedure Act***

12 28. The Administrative Procedure Act authorizes courts reviewing agency actions to  
13 hold unlawful and set aside final agency actions, findings, and conclusions that are arbitrary and  
14 capricious, an abuse of discretion, or otherwise not in accordance with law. 5 U.S.C. §  
15 706(2)(A). EISs and EAs issued under NEPA are reviewed under this provision of the APA.

### 16 **FACTS**

#### 17 ***Facts relating to the Orders and their extensions***

18 29. In December 2001, FWS released a Draft EIS (DEIS) for public comment on a  
19 proposal to extend the Aquaculture Depredation Order (AQDO, 50 C.F.R 21.47, enacted in  
20 1998) and to create a new Public Resource Depredation Order (PRDO). *Notice of Availability;*  
21 *Draft Environmental Impact Statement on Double-Crested Cormorant Management*, 66 Fed.  
22 Reg. 60,218 (Dec. 3, 2001). The DEIS presented six management alternatives: 1) no action; 2)  
23 only non-lethal management techniques; 3) expansion of existing cormorant management

1 policies; 4) a new depredation order; 5) reduction of regional cormorant populations; and 6)  
2 frameworks for a cormorant hunting season. *Id.*

3 30. Subsequently, FWS published a final EIS on DCCO management in the United  
4 States. *See Final Environmental Impact Statement on Double-Crested Cormorant Management*,  
5 68 Fed. Reg. 47,603 (Aug. 11, 2003). The 2003 FEIS cited increasing DCCO population and  
6 human-DCCO conflicts, particularly with aquaculture operations, as primary reasons for  
7 managing DCCO populations.

8 31. On October 8, 2003, FWS published final regulations for the AQDO (extending  
9 50 C.F.R. 21.47) and PRDO (establishing 50 C.F.R. § 21.48). Under the 2003 final regulations,  
10 both Orders were to expire on April 30, 2009.

11 32. The PRDO applies in 24 states: Alabama, Arkansas, Florida, Georgia, Illinois,  
12 Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, New  
13 York, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Vermont, West  
14 Virginia, and Wisconsin. This order authorizes State fish and wildlife agencies, federally-  
15 recognized Tribes, and USDA APHIS Wildlife Services to take DCCOs to protect fish, wildlife,  
16 plants, and their habitats that are managed by public resource agencies for public benefit.

17 33. The AQDO applies in 13 states: Alabama, Arkansas, Florida, Georgia, Kentucky,  
18 Louisiana, Minnesota, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and  
19 Texas. The order authorizes freshwater commercial aquaculture producers to take DCCOs  
20 committing or about to commit depredation of aquaculture stocks. It also authorizes USDA  
21 APHIS Wildlife Services employees to control DCCOs at roosts near aquaculture facilities.

22 34. Five years after issuance of the Orders, with the expiration date looming, the  
23 Agency conducted an EA that considered only three alternatives: no action, a five-year

1 extension, or an indefinite extension. On April 6, 2009, FWS published a final regulation  
2 extending the Orders for five years, through June 30, 2014. 50 C.F.R. § 21.47.

3 35. As the *second* expiration date drew nearer, on November 8, 2011 the Agency  
4 published a notice of intent to prepare an EA or SEIS to review potential revisions to regulations  
5 governing the management of DCCOs. *See Request for Comments; Migratory Bird Permits,*  
6 *Double-Crested Cormorant Management in the United States*, 76 Fed. Reg. 216 (Nov. 8, 2011).  
7 This request sought public input on specific questions, including whether and how the proposed  
8 alternatives should be modified and which additional alternatives should be included. *Id.*

9 36. Ultimately, FWS received eighty-one letters from the public and agencies with  
10 substantive suggestions on the November 8, 2011 notice of intent. Some commenters suggested  
11 that the overall objectives were misdirected and FWS neglected its responsibility to protect all  
12 native waterbird species including DCCOs and to promote sound ecological and natural resource  
13 use practices. Some commenters suggested other alternatives to those proposed, including  
14 focusing on local damage control while developing ecologically sustainable aquaculture and  
15 fisheries practices and increasing social carrying capacity for cormorants. Comments on the  
16 Notice of Intent are available at [www.regulations.gov](http://www.regulations.gov) by searching for FR Doc No. 2012-01807.

17 37. In March 2014 FWS issued a proposed rule and draft EA (DEA). The Agency  
18 received thirty comments from individuals, organizations, State agencies, and Flyways on the  
19 March 5, 2014, proposed rule and DEA. Commenters (including several Plaintiffs) noted, *inter*  
20 *alia*, the lack of evidence of a need for the Orders; lack of a proven link between DCCO  
21 suppression and increased fish stocks; failure to consider other factors contributing to declines in  
22 fish stocks such as overfishing, toxins, invasive species and the aquaculture industry's lack of  
23 mechanisms to protect open ponds; deficiencies in state permit programs, including that of

1 Texas; FWS' failure to conduct a thorough review in the ample time it has had to do so;  
2 deficiencies in the population modeling used in the DEA; failure to appropriately consider  
3 alternatives; and the environmental implications of the use of lead bullets in killing DCCOs.  
4 Comments on the proposed rule and DEA are available at [www.regulations.gov](http://www.regulations.gov) by searching for  
5 Docket ID: FWS-HQ-MB-2013-0135.

6 38. On April 30, 2014, FWS published a final EA regarding the management of  
7 DCCOs (2014 FEA). Despite the Agency's request for input regarding alternatives, the 2014  
8 FEA considered only three: allowing the Orders to expire, extending them for five additional  
9 years, and extending them indefinitely. United States Fish and Wildlife Service, "Final  
10 Environmental Assessment: Management of Double-crested Cormorants Under 50 C.F.R. 21.47  
11 and 21.28" (May 2014). Despite having specifically solicited comments regarding topics such as  
12 objectives and alternatives, the Agency admitted, "Due to resource limitations, we are unable to  
13 complete full analysis of these proposals prior to the expiration of the AQDO and PRDO. . .  
14 Issues raised in public comments on the 2011 notice will be addressed in detail in a subsequent  
15 NEPA analysis." *Id.* at 18.

16 39. On May 15, 2014, FWS published a FONSI concluding that extending the Orders  
17 for five additional years would have no significant impact and that a full EIS was not required.

18 ***Facts evidencing fundamental problems in the Agency's description of the need for the***  
19 ***proposal, as required by 40 C.F.R. § 1508.9(b) and the Agency's failure to meet its***  
20 ***requirement to provide "sufficient evidence and analysis" for a FONSI determination, 40***  
21 ***C.F.R. § 1508.9(a)(1).***

22 40. During the period the Orders have been in effect, an estimated half million  
23 DCCOs have been killed. 2014 FEA at 21-22.

24 41. Although the Orders were based in large part on a perceived need to reduce  
25 "conflict" between DCCOs and the aquaculture industry, the EA does not demonstrate that the

1 industry has benefitted economically or otherwise from the Orders. Despite the tens of  
2 thousands of DCCOs killed, the EA presents no data showing a widespread increase in fish  
3 populations on the scale of the suppression of DCCOs.

4 42. The “Purpose and Need for Proposed Action” section of the EA simply states that  
5 FWS “anticipate[s] a continuing need to manage DCCOs to protect aquaculture and public  
6 resources beyond the expiration dates of the [Orders].” The Agency has had over a decade of  
7 DCCO suppression to conduct research and gather results, yet has not devoted the time or the  
8 resources to adequately studying the issue, and has been otherwise unable to prove that the  
9 Orders accomplish their intended effect.

10 43. Many of the scientific papers relied upon by FWS in the 2014 FEA are outdated,  
11 fail to account for the drastic changes to the food web in recent years due to rampant invasive  
12 species, and/or contain baseless assumptions and unsupported broad-based conclusions. As just  
13 one example, the *Schwiff* paper on the impact of DCCOs on central New York Finger Lakes  
14 attributes all of the declines in the two fish species of interest (perch and walleyed pike) over a  
15 fifteen year period to DCCO depredation, yet the paper provides no data on the number of  
16 DCCOs using the lake in question or what they ate when on the lake, and ignores other  
17 significant sources of fish decline such as the ten-fold increase in fishing licenses in the period  
18 immediately preceding the decline.

19 44. Conversely, the 2014 FEA ignores a crucial study undertaken by researchers from  
20 the University of Minnesota’s Department of Fisheries, Wildlife, and Conservation Biology in  
21 2012 showing significant declines in the Great Lakes populations of DCCOs. Linda R. Wires,  
22 Francesca J Cuthbert and Todd Arnold, *Advancing Great Lakes Colonial Waterbird Monitoring*  
23 *Priorities: Sampling and Collaboration*, (June 2013). Despite having commissioned this study,

1 FWS fails to mention it in the 2014 FEA, even though the study suggests major changes in  
2 circumstance that warrant careful consideration in a full EIS.

3 45. The 2014 FEA fails to examine the potential *beneficial* impacts to economically  
4 significant fish populations from DCCOs living in complex ecological communities.

5 ***Facts pertaining to the CEQ regulations’ definition of a “significant” impact requiring an***  
6 ***EIS, 40 C.F.R. § 1508.27(b), and the Agency’s failure to meet its requirement to provide***  
7 ***“sufficient evidence and analysis” for a FONSI determination, 40 C.F.R. § 1508.9(a)(1).***

8 46. Despite the CEQ regulation defining the significance of an impact in part in  
9 relation to “[t]he degree to which the possible effects on the environment are highly uncertain or  
10 involve unique or unknown risks,” 40 C.F.R. § 1508.27(b)(5), FWS does not make uncertainty a  
11 factor in deciding whether the Orders have a “significant” impact. To the contrary, the EA itself  
12 acknowledges the high level of uncertainty regarding fish populations: a primary justification  
13 for the Orders. FWS admits that “[t]he wide range of biotic and abiotic factors that impact fish  
14 populations and the complexity and challenges in studying aquatic systems make it difficult to  
15 demonstrate a cause and effect relationship between DCCO predation and fish populations,”  
16 2014 FEA at 10. Yet, the EA concludes that the impact is not significant for NEPA purposes.

17 47. Despite the CEQ regulation defining the significance of an impact in part in  
18 relation to “[t]he degree to which the effects on the quality of the human environment are likely  
19 to be highly controversial,” 40 C.F.R. § 1508.28(b)(4), FWS does not weigh potential  
20 controversy in deciding whether the Orders have a “significant” impact. DCCO management is  
21 a highly controversial topic. Books such as *The Double-crested Cormorant, Symbol of*  
22 *Ecological Conflict* by Dennis Wild (University of Michigan Press, 2012) and *The Double-*  
23 *crested Cormorant: Plight of a Feathered Pariah* by Linda Wires (Yale University Press, 2014),  
24 and *The Devil's Cormorant: A Natural History* by Richard King (University of New Hampshire  
25 Press, 2013) explore the heated controversy regarding the effects of cormorants and the killing of

1 cormorants on the quality of the human environment. Indeed, a basic internet search using the  
2 words “cormorant,” “management,” and “controversy” yields over two million results, including  
3 books, scholarly articles, newspaper and media reports, and blogs.

4 48. Despite the CEQ regulation defining the significance of an impact in part in  
5 relation to “[t]he degree to which the action may establish a precedent for future actions with  
6 significant effects or represents a decision in principle about a future consideration,” 40 C.F.R.  
7 § 1508.27(b)(6), FWS ignores the potential precedential effects of this *second* five year  
8 extension of the Orders without thorough review under NEPA.

9 49. Despite the requirement to prepare supplements to draft or final EISs when there  
10 are “significant new circumstances or information relevant to environmental concerns and  
11 bearing on the proposed action or its impacts,” 40 C.F.R. § 1502.9(c)(ii), FWS ignores  
12 information in its own EA suggesting declines in DCCO populations. In the U.S. Great Lakes  
13 region, where DCCOs are most actively managed, the 2014 FEA indicates that the number of  
14 DCCO breeding pairs has declined by 13.3% from 2005 to 2011. The 2014 FEA also cites to  
15 data collected by USDA APHIS Wildlife Services and the USDA APHIS National Wildlife  
16 Research Center during an annual mid-winter roost survey in Mississippi and Alabama  
17 (important states for aquaculture) indicating that DCCO population declined by 46% from 2004  
18 to 2013. Despite these significant declines, FWS does not consider within the 2014 FEA  
19 whether the changed circumstances in either the Great Lakes region or the Mississippi/Alabama  
20 region warrant changes in species management.

21 50. Similarly, despite the requirement to prepare supplements to draft or final EISs  
22 when there are “significant new circumstances or information relevant to environmental  
23 concerns and bearing on the proposed action or its impacts,” 40 C.F.R. § 1502.9(c)(ii), FWS fails



1 to consider the radical decline of the catfish industry in relation to the asserted “need” for a  
2 continuation of the orders. The 2014 FEA indicates a major decline in the catfish aquaculture  
3 industry in Arkansas, Alabama, and Mississippi (noted in the 2003 FEA as primary aquaculture  
4 states) in the past 13 years. From 2002 to 2013, the number of water acres devoted to catfish  
5 farming in Arkansas declined by 78% (38,000 acres to 8,200 acres). From 2001 to 2013, the  
6 number of water acres devoted to catfish farming in Mississippi declined by 57% (112,700 acres  
7 to 48,600 acres). From 2002 to 2013, the number of water acres devoted to catfish farming in  
8 Alabama declined by 30% (25,900 acres to 18,200 acres). However, FWS does not consider  
9 whether the decline in catfish farming warrants any change in DCCO management. In addition,  
10 FWS does not consider that in the more than forty years the catfish industry has existed, catfish  
11 farmers in these states have made few, if any, modifications to their ponds to protect them from  
12 DCCO predation.

13 51. Texas and South Carolina – and potentially other states in the future – have  
14 DCCO hunting permit programs that contain limited if any oversight mechanisms and allow the  
15 killing of DCCO without compliance with the terms of the PRDO. The EA does not consider the  
16 potentially significant environmental effects of these non-compliant state DCCO hunting  
17 programs nor does it provide for adequate oversight of state-run programs.

18 52. In Texas, for example, any private citizen with a hunting license, thirteen dollars,  
19 and landowner permission can get a permit to shoot at DCCO on private land. This is despite  
20 FWS’s acknowledgement that “there is little or no evidence that DCCOs are adversely impacting  
21 fishery resources in Texas, nor that DCCO control activities are having a beneficial effect on  
22 those resources.” 2014 FEA at 30. When FWS issued its FONSI, it admitted that the Texas  
23 program was not in compliance with the PRDO because it allowed take on private lands, and

1 stated that it would ensure that Texas remedied the problem, or FWS would eliminate Texas  
2 from the list of states authorized to implement the PRDO. Despite these assurances, the program  
3 remains unchanged; FWS has not suspended the program nor has it removed Texas from the list.

4 53. In South Carolina in one month alone in 2014 private hunters acting under the  
5 authority of the PRDO killed over 11,000 cormorants, with sixty percent of permit holders  
6 failing to turn in required documentation. Joey Holleman, *SC Hunters Kill More Than 11,000*  
7 *Cormorants*, The State, (April 4, 2014), [www.thestate.com/2014/04/04/3368510/exclusive-sc-](http://www.thestate.com/2014/04/04/3368510/exclusive-sc-hunters-kill-more.html)  
8 [hunters-kill-more.html](http://www.thestate.com/2014/04/04/3368510/exclusive-sc-hunters-kill-more.html). Since both Orders have been in place, the total yearly continental kill of  
9 DCCO has averaged 43,423 per year; thus South Carolina's decision to sponsor this one hunting  
10 event alone will increase the continental total for 2014 by a staggering 25%. If other states  
11 follow suit – particularly in areas where DCCOs overwinter – the yearly kill numbers that FWS  
12 used in its modeling could turn out to be wildly conservative. Such unregulated, unsupervised,  
13 and non-coordinated state killing plans could significantly damage the entire interior DCCO  
14 population in a single year. The 2014 FEA fails to account for this possibility.

15 54. Although the Orders require nontoxic shot for users of shotguns, those using rifles  
16 may continue using lead-based ammunition through January 1, 2017, introducing toxic lead into  
17 the environment through the soft and easily fragmented bullets. Beginning on that date, persons  
18 using centerfire rifles must use bullets that contain no more than 1% lead, but until then, the  
19 Orders allow for actions that may threaten fragile aquatic ecosystems and endanger scavenging  
20 animals. Moreover, the Orders require non-toxic bullets only for center-fire rifles, not for rim-  
21 fire rifles, including the ubiquitous .22 caliber, or for handguns. The 2014 FEA does not  
22 consider the potentially significant environmental effects of the introduction of toxic lead into  
23 the environment which is permitted by the Orders.





