





November 2, 2017

Sent via Email and U.S. Mail

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Re: Notice of Violations of the Endangered Species Act and its Regulations Regarding APHIS-Wildlife Services' Aquatic Mammal Damage Management Program in Oregon

On behalf of the Center for Biological Diversity and Northwest Environmental Advocates, we hereby provide notice, pursuant to Section 11(g) of the Endangered Species Act ("ESA"), 16 U.S.C. § 1540(g), that the Wildlife Services program (within the U.S. Department of Agriculture Animal and Plant Health Inspection Service, hereinafter "APHIS-Wildlife Services") is in violation of Section 7 of the ESA, 16 U.S.C. § 1536, and the ESA's consultation regulations, 50 C.F.R. Part 402.

Beavers are nature's engineers, building dams and creating ponds that are used by and essential to a variety of rare wildlife species in Oregon. Despite their documented importance to recovery of threatened and endangered salmon and steelhead, and estimates of beaver populations' being only 3 – 10 percent of their historical levels, programs to kill beavers in Oregon continue unabated (NMFS 2016a, p. 3-9). APHIS-Wildlife Services kills hundreds of

beavers in Oregon each year without any analysis of the impacts to threatened and endangered wildlife, such as the Oregon coast coho salmon and the Oregon spotted frog.

To address this problem, we intend to file a lawsuit challenging APHIS-Wildlife Services': (1) failure to insure that the Aquatic Mammal Damage Management program in Oregon (the "Program")¹, including projects and activities that are authorized and implemented through the Program, is not likely to jeopardize the continued existence of endangered fish and wildlife; (2) failure to initiate, reinitiate and/or complete consultation with the U.S. Fish and Wildlife Service ("FWS") and the National Marine Fisheries Service ("NMFS") (collectively the "Services") regarding the impacts of the Program on endangered fish and wildlife; and (3) continued authorization and approval of activities that may irreversibly and irretrievably commit resources and may foreclose the formulation or implementation of reasonable and prudent alternatives, prior to completing consultation regarding the impacts of the Program on endangered fish and wildlife.²

The Center for Biological Diversity (the "Center") is a national, nonprofit conservation organization with more than one and a half million members and online activists dedicated to the protection of endangered species and wild places. The Center and its members are concerned with the conservation of imperiled species, including endangered salmonids, and the effective implementation of the ESA.

Northwest Environmental Advocates ("NWEA"), founded in Oregon in 1969, works through advocacy and education to protect and restore water quality, wetlands, and wildlife habitat in the Northwest and nationally. NWEA's particular focus in advocating on behalf of the natural environment and human health is implementation of the Clean Water Act. One of NWEA's primary goals is to increase habitat quality and abundance for cold-water species—especially threatened and endangered salmonids such as salmon, steelhead, and bull trout—as well as amphibians.

STATUTORY BACKGROUND

When a species has been listed or critical habitat designated under the ESA, all federal agencies—including APHIS-Wildlife Services—must ensure in consultation with the Services that their programs and activities are in compliance with the ESA. 16 U.S.C. § 1536(a)(2). Specifically, section 7(a)(2) of the ESA mandates that all federal agencies "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species." *Id*.

¹ For the purposes of this notice letter, the "Program" means all authorizations and activities of APHIS-Wildlife Services that result in management or control of aquatic mammals in Oregon. This includes the killing of aquatic mammals and destruction of their homes by APHIS-Wildlife Services, as well as contracts and cooperative

agreements entered by APHIS-Wildlife Services that involve management of aquatic mammals.

² In addition, we intend to file a lawsuit challenging APHIS Wildlife Services' foilure to analyze

² In addition, we intend to file a lawsuit challenging APHIS-Wildlife Services' failure to analyze the environmental impacts of the Program pursuant to the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4347. Wildlife Services' violations of NEPA and the ESA are also arbitrary and capricious, an abuse of discretion, and not in accordance with law, in violation of the Administrative Procedure Act, 5 U.S.C. § 706(2).

Through consultation under Section 7 of the ESA, federal agencies work with the Services to determine whether their actions will jeopardize ESA-listed species' survival or adversely modify designated critical habitat, and if so, to identify ways to modify the action to avoid that result. 50 C.F.R. § 402.14. An agency is required to review its actions "at the earliest possible time" to determine whether the action may affected listed species or critical habitat. 50 C.F.R. § 402.14(a).

The scope of agency actions subject to consultation are broadly defined to encompass "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies." 50 C.F.R. § 402.02 (definition of "action"). As such, APHIS-Wildlife Services' killing of beavers and contracting to kill beavers, as part of its Aquatic Mammal Damage Management program, are "agency actions" subject to consultation.

To begin, APHIS-Wildlife Services must ask the Services whether any listed or proposed species may be present in the area of the agency action. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12. If listed or proposed species may be present, APHIS-Wildlife Services must prepare a "biological assessment" to determine whether the listed species may be affected by the proposed action. *Id.* The biological assessment must generally be completed within 180 days. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12(i). The threshold for a "may affect" determination and the required Section 7(a)(2) consultation is low so as to ensure that that listed species are not jeopardized. *Karuk Tribe of Cal. v. U.S. Forest Serv.*, 681 F.3d 1006, 1027 (9th Cir. 2012).

If an agency determines that its action "may affect" but is "not likely to adversely affect" a listed species or its critical habitat, the regulations permit "informal consultation," during which the Services must concur in writing with the agency's determination. 50 C.F.R. § 402.14(a)-(b). If the agency determines that its action is "likely to adversely affect" a listed species or critical habitat, or if the Services do not concur with the agency's "not likely to adversely affect" determination, the agency must engage in "formal consultation," as outlined in 50 C.F.R. § 402.14 ("General Formal Consultation"). 50 C.F.R. §§ 402.02, 402.14(a). An agency is relieved of the obligation to consult on its actions only where the action will have "no effect" on listed species or designated critical habitat. Effects determinations are based on the direct, indirect, and cumulative effects of the action when added to the environmental baseline and other interrelated and interdependent actions. 50 C.F.R. § 402.02 (definition of "effects of the action").

To complete formal consultation, the Services must provide APHIS-Wildlife Services with a "biological opinion" explaining how the proposed action will affect the listed species or habitat. 16 U.S.C. § 1536(b); 50 C.F.R. § 402.14. Consultation must generally be completed within 90 days from the date on which consultation is initiated. 16 U.S.C. § 1536(b)(1)(A); 50 C.F.R. § 402.14(e). Where the Services conclude that the proposed action "will jeopardize the continued existence" of a listed species, the biological opinion must outline "reasonable and prudent alternatives." 16 U.S.C. § 1536(b)(3)(A). An action is deemed to jeopardize the continued existence of a species if it "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery" of the species. 50 C.F.R. § 402.02. Thus, an agency is prohibited from taking any action that will reduce appreciably the likelihood of the species' survival *or* recovery. *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries*

Serv., 524 F.3d 917, 931 (9th Cir. 2008); see NMFS, The Habitat Approach, Implementation of Section 7 of the Endangered Species Act for Actions Affecting the Habitat of Pacific Anadromous Salmonids, 3 (1999) ("[I]n order for an action to not 'appreciably reduce' the likelihood of survival, it must not prevent or appreciably delay recovery.").

In addition, if the Services conclude that the action is not likely to jeopardize the continued existence of a listed species, and will not result in the destruction or adverse modification of critical habitat, either as proposed or through the implementation of the reasonable and alternatives described in the biological opinion, the Services must provide an "incidental take statement," specifying the amount or extent of such incidental taking on the listed species, any "reasonable and prudent measures" that the Services consider necessary or appropriate to minimize such impact, and setting forth the "terms and conditions" that must be complied with by APHIS-Wildlife Services to implement those measures. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i). Taking of listed species without the coverage of an incidental take statement is a violation of Section 9 of the ESA. 16 U.S.C. § 1538.

Agencies must reinitiate consultation on agency actions over which the federal agency retains, or is authorized to exercise, discretionary involvement or control under these circumstances:

- (a) If the amount or extent of taking specified in the incidental take statement is exceeded;
- (b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- (c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or
- (d) If a new species is listed or critical habitat designated that may be affected by the identified action.

50 C.F.R. § 402.16.

During the consultation process, APHIS-Wildlife Services is prohibited from making any irreversible or irretrievable commitment of resources with respect to the Program that may foreclose the formulation or implementation of any reasonable and prudent alternative measures. 16 U.S.C. § 1536(d). This means that APHIS-Wildlife Services may not proceed in its activities targeting beavers, otters and other aquatic mammals unless it completes Section 7 consultation.

Compliance with the Section 7 consultation process is integral to compliance with the substantive requirements of the Act—that an agency's action will not jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat.

FACTUAL BACKGROUND

<u>APHIS-Wildlife Services' Cruel and Unnecessary Program for Killing Our Nation's Wildlife</u>

APHIS-Wildlife Services and its precursors have specialized in trapping and killing wildlife for more than 100 years, and are responsible for the eradication of such wildlife as wolves, bears, and other animals from much of the United States, particularly in the West (Robinson 2005). APHIS-Wildlife Services contracts with other federal agencies, non-federal government agencies, and private landowners to manage "wildlife conflicts" (USDA 2016a).

Today, APHIS-Wildlife Services kills millions of animals every year. For example, in Fiscal Year 2016, APHIS-Wildlife Services reports that it killed more than 2.7 million animals across the United States—including nearly 1.6 million native wildlife species (USDA 2016b). That figure includes 415 gray wolves; 76,963 adult coyotes; 407 black bears; 334 mountain lions; 997 bobcats; 535 river otters, including 415 killed "unintentionally"; 3,791 foxes; and 21,184 beavers. These figures almost certainly underestimate the actual number of animals killed, as program insiders have revealed that APHIS-Wildlife Services kills many more animals than it reports (Robinson 2005, p. 25).

APHIS-Wildlife Services has also unintentionally killed thousands of non-target animals, undermining state and federal efforts to conserve and recover the affected species—which, oftentimes, need protection in part due to APHIS-Wildlife Services' historic and ongoing practices. For example, in Fiscal Year 2016, APHIS-Wildlife Services reports that it killed nearly 3,000 non-target animals (USDA 2016b).

Many of the methods used by APHIS-Wildlife Services—including traps, snares, and M-44 gas cartridges—are fundamentally nonselective, environmentally destructive, inherently cruel, and often ineffective. For example, steel-jaw leghold traps are internationally recognized as inhumane and have been banned in many countries (BornFree USA 2016). Mammals, upon being trapped, frantically struggle to free themselves both by attempting to pull the trapped limb out of the device and by chewing at the trap itself or even their own limbs. The force of the jaws clamping on the animal's limb and the subsequent struggle can result in severe trauma including mangling of the limb, fractures, damage to muscles and tendons, lacerations, injury to the face and mouth, broken teeth, loss of circulation, frostbite, and amputation (BornFree USA 2016; Proulx 1999).

<u>APHIS-Wildlife Services Kills Hundreds of Beavers and Other Aquatic Mammals in Oregon Every Year</u>

APHIS-Wildlife Services kills hundreds of aquatic mammals in Oregon each year. From 2010 to 2016, the Program killed 6,484 aquatic mammals in Oregon, including 3,459 beavers, 4 mink, 159 muskrat, and 36 river otter. For the most recent year of available data, in Fiscal Year 2016, APHIS-Wildlife Services killed 806 aquatic mammals, including over 400 beavers (USDA 2016c).

The Center and NWEA have each submitted requests, under the Freedom of Information Act ("FOIA"), for information on the killing of beavers and other aquatic mammals by APHIS-Wildlife Services. In response to those requests, APHIS-Wildlife Services provided a map showing the average number of beavers killed by county from 2008 - 2012. That map is attached to this notice letter.



APHIS-Wildlife Services trapper poses with a truckload of dead aquatic mammals

Methods used by APHIS-Wildlife Services for killing aquatic mammals include traps, snares, firearms, and nets. For beavers from 2010 to 2016, APHIS-Wildlife Services killed 1,718 with body-gripping traps, 703 with neck snares, 476 with firearms, and 353 with foothold traps. Traps set in or near water are often designed to drown aquatic mammals; death by drowning is considered inhumane by the American Veterinary Medical Association and can take up to 20 minutes for some species (Gilbert and Gofton 1982; Ludders et al. 1999).

³ The Center has also requested records from APHIS-Wildlife Services documenting the number of beavers it killed in each Oregon county over the past five years. The Center has not yet received those records.

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Dead beaver in steel-jaw leghold trap



Beaver killed with body-gripping trap (Conibear trap)

APHIS-Wildlife Services Has Never Analyzed the Environmental Impacts of its Aquatic Mammal Damage Management Program in Oregon

Even though APHIS-Wildlife Services in Oregon kills hundreds of aquatic mammals each year, the agency has never analyzed the environmental impacts of its Aquatic Mammal Damage Management program under NEPA. Nor has it consulted with the Services under Section 7 of the ESA to ensure that it does not cause jeopardy to Oregon's ESA-listed species.

It is clear, however, that APHIS-Wildlife Services is well aware of its duty to comply with the ESA. Indeed, in 2013, staff from APHIS and NMFS began discussing the need for Section 7 consultation on the impacts of aquatic mammal control in Oregon on salmonids. Those records include a draft 101-page Environmental Assessment and a 68-page Biological Assessment for the APHIS-Wildlife Services' Aquatic Mammal Damage Management Program

in Oregon dated April 2014, documents that APHIS-Wildlife Services nearly fully redacted before providing to the Center and fully withheld from NWEA in response to requests submitted under FOIA. Even though agency staff recognized the need for the consultation, the efforts toward consultation stalled and it appears the agencies never formally initiated—and certainly never completed—the Section 7 process with the Services and therefore have not ensured against causing jeopardy to threatened and endangered species in Oregon.

<u>APHIS-Wildlife Services Analyzed its Aquatic Mammal Damage Management Program</u> Under NEPA and the ESA in the State of Washington

Although APHIS-Wildlife Services has prepared no Oregon-specific analysis of its Aquatic Mammal Damage Management program, in contrast, it did prepare an Environmental Assessment and FONSI/DN for the State of Washington (USDA 2008a,b). APHIS-Wildlife Services also prepared a Biological Assessment and requested concurrence from NMFS with its finding of "may affect, not likely to adversely affect" for all anadromous salmonid species under NMFS jurisdiction in Washington State (USDA undated-c).⁴ On May 9, 2008, NMFS issued a concurrence letter (Lohn 2008).

In its concurrence letter, NMFS explained that "[t]he most likely form of adverse effect of the action to listed species is the loss of habitat condition and function that could result from the removal of beaver and, in turn, the ponds they create." NMFS based its concurrence on a number of commitments from APHIS-Wildlife Services. Specifically, APHIS made the following commitments regarding where it can remove beavers and beaver dams:

- Beaver or beaver dam removal will occur only in the developed landscape and only in places where beaver have recently become active (a year or less, usually weeks);
- Beaver dams will not be routinely removed from streams designated as critical habitat for any of the subject species because of the vital role beaver play in retaining perennial flow and pool habitats; and
- Beaver dams will be removed primarily from constructed water conveyance and drainage channels in agricultural landscapes, and will not be removed with explosives except in the previously mentioned portions of the Columbia Basin Project.

Importantly, APHIS-Wildlife Services and NMFS committed to *separately consulting* on any individual beaver removal project in Washington that is likely to adversely affected listed species. To that end, NMFS receives advance notice of any removals (Lohn 2008). APHIS and FWS also completed informal consultation on impacts of Washington's Aquatic Mammal

(threatened). In addition, that determination pertained to the appropriate designated critical habitats of these

⁴ The consultation pertained to the following species of Chinook (*Oncorhynchus tshawytscha*) salmon: Snake River

species.

Spring/Summer-run (threatened) and Fall-run (threatened), Upper Columbia River Spring-run (endangered), Lower Columbia River (threatened), and Puget Sound (threatened); the following species of steelhead (*O. mykiss*): Snake River (threatened), Upper Columbia River (endangered), Middle Columbia River (threatened), Lower Columbia River (threatened), and Puget Sound (threatened); the following species of sockeye (*O. nerka*) salmon: Snake River (endangered), and Lake Ozette (threatened); the following species of chum (*O. keta*) salmon: Hood Canal Summerrun (threatened), and Columbia River (threatened); and, Lower Columbia River coho (*O. kisutch*) salmon

Damage Management Program on bull trout (Berg 2008). According to records received by the Center through FOIA, APHIS-Wildlife Services in August 2016 again requested informal consultation on its Aquatic Mammal Damage Management program in Washington (Woodruff 2016) but no response from NMFS or FWS was provided with the records.

<u>APHIS-Wildlife Services' Killing of Beavers Harms Oregon's ESA-Listed Wildlife,</u> Especially Salmonids

As recently as December 2016, NMFS articulated the importance of beavers to survival and recovery of the Oregon Coast coho in its Recovery Plan for the species (NMFS 2016a). Noting that beaver removal has degraded coho salmon habitat, these federal fish experts also point out that restoring beavers and their dams has proven effective at increasing salmon populations (NMFS 2016a, pp. 3-8, 3-28). In its plan, NMFS explicitly called for changes in "beaver management to allow beavers to build more dams in Oregon Coast coho rearing habitat" (NMFS 2016a, p. 4-16).

Beaver dams and ponds adjust stream morphology and in-stream habitat in a variety of ways that are beneficial for many fish species, including federally-protected salmonids (ODFW 2005; Pollock et al. 2015). In a meta-analysis of more than 100 peer-reviewed research papers, scientists identified numerous positive impacts from beaver on salmonids (Kemp et al. 2012).

Beaver dams create areas of deeper water than would typically be found in small streams (ODFW 2005), and impounded waters upstream of beaver dams cover much greater surface areas than the pre-existing stream channels (Naiman et al. 1986). As a result, beavers give streams a greater carrying capacity to support juvenile salmonids (Hoffman 2013).

Additionally, beaver ponds and dams dissipate stream energy during floods or high flow events and create areas of slow or still water in an otherwise moving-water environment (ODFW 2005; Woo & Waddington 1990). As a result, salmonids wintering in beaver ponds and other slack-water habitats do not need to spend the winter swimming against strong currents but, instead, can expend more energy feeding (Hoffman 2013). By slowing water velocities and increasing water depth and storage capacity, beaver dams can contribute to groundwater recharge thereby helping to increase summer low flows in streams (Leidholt-Bruner et al., 1992; Pollock et al. 2003).

Beaver ponds and dams also create complex shorelines and in-stream habitats (Naiman et al. 1988). That complexity results in greater aquatic productivity—and thus more food for salmonids—than stream reaches that have not been dammed by beavers (Leidholt-Bruner et al. 1992; Snodgrass and Meffe 1998; Collen and Gibson 2001; Pollock et al. 2004; Smith and Mather 2013).

Because of these positive impacts on salmonid habitat created by beavers, coho fry in coastal Oregon were three times more abundant in beaver-created habitat than in pools created by other fluvial processes (Leidholt-Bruner et al. 1992). Similarly, Nickelson et al. (1992) found that juvenile coho in coastal Oregon were most abundant in beaver ponds and alcoves during the winter. Moreover, Reeves et al. (1989) explains that juvenile coho in western Oregon and

Washington rear, feed, and shelter most successfully in deep, complex pools and other off-channel habitats with low gradients and low water velocities—precisely the types of habitats created by beaver dams and ponds. And in eastern Oregon, on Bridge Creek, a tributary to the John Day River, preliminary data from monitoring efforts indicate that human-facilitated beaver restoration is increasing production of a population of ESA-listed steelhead (Pollock et al. 2011; Pollock et al. 2012).

Given all the positive benefits of beavers to ecosystem health, it is not surprising that researchers have documented that removal of beavers harms salmonids, including populations listed under the ESA.⁵ For example, Pollock et al. (2004), in a study of the Stillaguamish River Basin of Washington, found that the greatest reduction in coho smolt production capacity was associated with the extensive loss of beaver ponds. Removing beavers means fewer dams because of less dam-building and less maintenance of existing dams by beavers. In coastal Oregon rivers, beaver dams in small streams often wash out during high winter flows and beavers rebuild them the following summer (ODFW 2005).

Each of following aquatic species is federally protected in Oregon and depends on habitat created or improved by the presence of beavers, and therefore may be affected by removal of beavers under APHIS-Wildlife Services' Aquatic Mammal Damage Management program:

- T Salmon, Chinook Lower Columbia River ESU (*Oncorhynchus* (=Salmo) tshawytscha)
- T Steelhead Lower Columbia River DPS (Oncorhynchus (=Salmo) mykiss)
- T Salmon, chum Columbia River ESU (Oncorhynchus keta)⁶
- T Salmon, Chinook Snake River fall-run ESU (Oncorhynchus (=Salmo) tshawytscha)
- E Salmon, sockeye Snake River ESU (Oncorhynchus (=Salmo) nerka)⁷
- T Steelhead Snake River Basin DPS (*Oncorhynchus* (=Salmo) mykiss)

⁵ The NMFS explained that "beaver removal" threatens "the physical and biological features essential to listed salmon and steelhead." Final Threatened Listing Determination, Final Protective Regulations, and Final Designation of Critical Habitat for the Oregon Coast Evolutionarily Significant Unit of Coho Salmon, 73 Fed. Reg. 7,816, 7,827, 7832-33 (Feb. 11, 2008), available at http://www.nmfs.noaa.gov/pr/pdfs/fr/fr73-7916.pdf; Designation of Critical Habitat for 12 Evolutionarily Significant Units of West Coast Salmon and Steelhead in Washington, Oregon, and Idaho. 70 Fed. Reg. 52,630, 52,665 (September 2, 2005), available at http://www.nmfs.noaa.gov/pr/pdfs/fr/fr70-52630.pdf; see also Designated Critical Habitat: Critical Habitat for 19 Evolutionarily Significant Units of Salmon and Steelhead in Washington, Oregon, Idaho, and California. 65 Fed. Reg. 7,764, 7,776 (Feb. 16, 2000), available at https://www.gpo.gov/fdsys/pkg/FR-2000-02-16/pdf/00-3553.pdf#page=1.

⁶ The recovery plan for the Lower Columbia River Coho Salmon, Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, and Lower Columbia River Steelhead explains the importance of beaver in creating habitat for these salmonids (NMFS 2013).

⁷ The recovery plan for Snake River sockeye salmon recognizes that beaver dams provide necessary natural cover for the salmonids (NMFS 2015).

- T Salmon, Chinook Snake River spring/summer-run ESU (*Oncorhynchus* (=Salmo) tshawytscha)⁸
- T Salmon, Chinook Upper Willamette River ESU (Oncorhynchus (=Salmo) tshawytscha)
- T Steelhead Upper Willamette River DPS (Oncorhynchus (=Salmo) mykiss)⁹
- T Salmon, coho Oregon Coast ESU (Oncorhynchus (=Salmo) kisutch)¹⁰
- T Steelhead Middle Columbia River DPS (Oncorhynchus (=Salmo) mykiss)¹¹
- T Sucker, Warner (Catostomus warnerensis)¹²
- T Trout, bull (Salvelinus confluentus)¹³
- T Trout, Lahontan cutthroat (Oncorhynchus clarkii henshawi)¹⁴
- T Frog, Oregon spotted (*Rana pretiosa*)¹⁵

The map attached to this notice letter shows that APHIS-Wildlife Services kills beavers in counties occupied by steelhead and Chinook, coho, and chum salmon. For example, it shows 282 beavers were killed in Coos County, where coho salmon critical habitat occurs. APHIS-Wildlife Services also has a Cooperative Agreement with the Oregon Department of Fish and Wildlife to kill beavers in Coquille Valley Wildlife Area in Coos County, Oregon, where coho salmon are found. But APHIS-Wildlife Services has not consulted with the Services on how the Aquatic Mammal Damage Management program in Oregon impacts any of these species.

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⁸ The recovery plan for the Snake River Chinook salmon and steelhead repeatedly discusses the importance of beavers in creating habitat for these salmonids and the threat posed by beaver removal (NMFS 2016b).

⁹ The Upper Willamette River Conservation and Recovery Plan for Chinook Salmon and Steelhead recognizes the importance of beaver in creating habitat for these salmonids and recommends measures to encourage landowners to protect beavers on their property (NMFS 2011).

¹⁰ The recovery plan for the Oregon coast coho salmon explains that "[r]emoving beaver and beaver habitat has

¹⁰ The recovery plan for the Oregon coast coho salmon explains that "[r]emoving beaver and beaver habitat has caused loss of beaver pond habitat which is high value for rearing juvenile coho salmon" (NMFS 2016a).

¹¹ The recovery plan for the Middle Columbia River Steelhead Distinct Population Segment explains that steelhead have lost prime habitat through beaver removal (NMFS 2009).

¹² The recovery plan for the warner sucker describes its habitat and explains that "[a]bout 45 percent of these pools [used by the adult suckers] were beaver ponds" (USFWS 1998).

¹³ The Final Rule designating revised critical habitat for bull trout indicates that "[a]ll life-history stages of bull trout have been observed overwintering in deep beaver ponds." Revised Designation of Critical Habitat for Bull Trout in the Coterminous United States; Final Rule, 75 Fed. Reg. 63,898, 63,930 (October 18, 2010), *available at* https://www.fws.gov/pacific/bulltrout/pdf/BTCHFR101810.pdf.

¹⁴ In a study in southeastern Oregon, scientists found that the total number of Lahontan cutthroat trout per meter was significantly higher in beaver ponds than free-flowing sections, and that survival is greater in beaver ponds than free-flowing sections as temperatures approach lethal limits (Talabere 2002).

¹⁵ The Final Rule designating critical habitat for the Oregon spotted frog explains that removal of beavers and features created by beavers threatens "physical or biological features that are essential to the conservation of this species." Designation of Critical Habitat for the Oregon Spotted Frog; Final Rule. 81 Fed. Reg. 29355 (May 11, 2016), *available at* https://www.gpo.gov/fdsys/pkg/FR-2016-05-11/pdf/2016-10712.pdf.

ESA VIOLATIONS

Because beavers create habitat beneficial to numerous endangered species, primarily salmonids and other aquatic wildlife, the killing of beavers as part of APHIS-Wildlife Services' Aquatic Mammal Damage Management program in Oregon is an "action" that "may affect" listed species. APHIS-Wildlife Services has failed to ensure that the Program is not jeopardizing the continuing existence of listed species, or adversely modifying or destroying designated critical habitat, through consultation with the Services, in violation of Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14. By allowing, authorizing, and approving projects and activities in conjunction with its Aquatic Mammal Damage Management program that may affect listed wildlife in Oregon, prior to the initiation, reinitiation and/or completion of consultation with the Services, APHIS-Wildlife Services is also violating Section 7(d) of the ESA. 16 U.S.C. § 1536(d).

CONCLUSION

For the above stated reasons, APHIS-Wildlife Services has violated and remains in ongoing violation of Section 7 of the ESA. If these violations of law are not cured within sixty days, the Center for Biological Diversity and Northwest Environmental Advocates intend to file suit for declaratory and injunctive relief, as well as attorney fees and costs. 16 U.S.C. § 1540(g). If you believe that any of the foregoing is inaccurate or otherwise would like to discuss this notice letter, please contact Collette Adkins of the Center for Biological Diversity at 651-955-3821 or cadkins@biologicaldiversity.org or Andrew Hawley of the Western Environmental Law Center at 206-487-7250 or hawley@westernlaw.org.

Sincerely,

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LITERATURE CITED

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