Via U.S. Certified and Electronic Mail

June 15, 2023

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Re: 60-Day Notice of Intent to Sue: Violations of the Endangered Species Act Regarding Toxic Stormwater Runoff in Oregon and Northern California

This letter serves as a 60 day notice on behalf of the Center for Biological Diversity of our intent to sue the California Department of Transportation ("Caltrans"); the Department of Transportation; the Oregon Division of the Federal Highway Administration ("FHWA"); the National Marine Fisheries Service ("NMFS"); and the Secretary of Commerce over violations of Section 7 of the Endangered Species Act ("ESA") (16 U.S.C. §§ 1531-1544) for actions and inactions related to maintenance and management of roads affecting imperiled coho and chinook salmon and their critical habitat in California and Oregon. This letter is provided pursuant to the 60-day notice requirement of the citizen suit provision of the ESA, to the extent such notice is deemed necessary by a court. *See* 16 U.S.C. § 1540(g).

In 2013 and 2021, NMFS authorized the taking of various species of threatened salmonids for highway maintenance projects in California and Oregon, respectively. Shortly after NMFS issued the 2021 Oregon Biological Opinion, a groundbreaking study discovered that a single chemical present in stormwater runoff is primarily responsible for die-offs of ESA-listed

coho salmon. This chemical is 6PPD-quinone, which is introduced to the environment via degrading tires. Since that initial study, dozens of other studies have confirmed 6PPD-quinone's highly toxic effect on coho salmon, and demonstrated harm to other salmon species, including ESA-listed chinook salmon.

The California and Oregon highway maintenance projects will contribute to the runoff of 6PPD-quinone from highways into waterways by maintaining the roads for vehicle travel, increasing the acreage of impermeable surfaces, hardening streambanks, compacting soil, changing slopes and drainage infrastructure, and facilitating additional vehicle miles travelled.

Section 7 of the ESA requires action agencies and NMFS to reinitiate consultation when "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."[1] The discovery of 6PPD-quinone and its impact to listed species requires the federal agencies to reinitiate consultation. NMFS, Caltrans, and FHWA are in violation of the ESA for failing to do so. The agencies must reexamine each of the agency actions described below pursuant to their obligations under Section 7 of the ESA, and modify and mitigate these actions as necessary to comply with the unambiguous mandate of the ESA to avoid jeopardizing the listed coho and chinook salmon and destroying or adversely modifying their critical habitat.

If these agencies do not reinitiate consultation within 60 days, the Center may pursue litigation to resolve the matter.

I. The Endangered Species Act

Congress enacted the ESA, in part to provide a "means whereby the ecosystems upon which endangered species and threatened species depend may be conserved...[and] a program for the conservation of such endangered species and threatened species..." 16 U.S.C. § 1531(b).

The ESA vests primary responsibility for administering and enforcing the statute with the Secretaries of Commence and Interior. The Secretaries of Commerce and Interior have delegated this responsibility to NMFS and the U.S. Fish and Wildlife Service ("FWS") respectively. 50 C.F.R. §402.01(b). NMFS has responsibility for salmon species, including listed coho and chinook salmon.

Section 2(c) of the ESA establishes that it is "the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of [the ESA]." 16 U.S.C. § 1531(c)(1). The ESA defines "conservation" to mean "…the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary." *Id.* § 1532(3). Similarly, section 7(a)(1) of the ESA directs that the Secretary review "other programs administered by him and utilize such programs in furtherance of the purposes of the Act." *Id.* § 1536(a)(1).

[1] 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.16(a)(2).

The ESA establishes strict standards that require NMFS, Caltrans, and the FHWA to carefully evaluate and/or mitigate the impacts of their actions. In particular, the ESA requires the agencies to reinitiate consultation when new information comes to light. Failure to reinitiate consultation in light of important new scientific information deprives imperiled species of important protections to which they are both legally required and greatly need.

Under section 7(a)(2) of the ESA all federal agencies must ensure that any action they authorize, fund or carry out is "not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [their designated critical] habitat."[2] When an agency determines that its proposed action "may affect listed species or critical habitat" it must engage in formal consultation with the expert federal wildlife agency responsible for the species at issue using "the best scientific and commercial data available."[3]

The biological opinion must explain how the proposed action will affect the ESA-listed species or critical habitat and determine whether jeopardy or adverse modification is likely to occur.[4] If jeopardy or adverse modification is found, the biological opinion shall suggest "reasonable and prudent alternatives" to the proposed action that NMFS believes would avoid the likelihood of jeopardy or adverse modification.[5] If NMFS concludes that the action may take listed members of the population, but the action will not jeopardize the population, the agency must produce an incidental take statement ("ITS") that specifies the impact of the action, generally by setting a numeric limit on take; and identifying "reasonable and prudent measures" that will minimize the impact of that take, among other requirements.[6]

Although the section 7 formal consultation process is complete upon the publication of a biological opinion, reinitiation of formal consultation is required and shall be requested by the action agency or by NMFS, where discretionary federal involvement or control over the action has been retained or is authorized by law and:

(1) If the amount or extent of taking specified in the incidental take statement is exceeded;

(2) 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;

(3) 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

[2] 16 U.S.C. § 1536(a)(2).
[3] *Id.*; 50 C.F.R. § 402.14(a).
[4] 50 C.F.R. § 402.14(g)(3), (4).
[5] 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. §§ 402.14(h), 402.02.
[6] 50 C.F.R. § 402.14(g)(7), (i).

(4) If a new species is listed or critical habitat designated that may be affected by the identified action.[7]

When reinitiation is required, "the original opinion loses its validity, as does its accompanying incidental take statement, which then no longer shields the action agency from penalties for takings."[8] Furthermore, once the agencies reinitiate consultation, under section 7(d) the action agency shall not make any irretrievable commitment of resources with respect to the agency action which has the effect of "foreclosing the formulation or implementation of any reasonable and prudent measures which would not violate subsection (a)(2) of this section."[9] Congress enacted this provision "to ensure that the status quo would be maintained during the consultation process, to prevent agencies from sinking resources into a project in order to ensure its completion regardless of its impacts to endangered species."[10] This prevents agencies from steamrolling activities in order to secure completion of projects.[11]

II. FACTUAL BACKGROUND

1. Toxic Effects of Tire Pollution on ESA-Listed Salmon

The Central California Coast population (or evolutionary significant unit, ESU) of coho salmon is highly imperiled, and is listed as endangered under the ESA.[12] The population is one of NMFS' "Species in the Spotlight" – one of 9 species NMFS considers most at risk of extinction in the near future. Three other coho salmon ESUs (lower Columbia River, Oregon coast, Southern Oregon and Northern California coast) are listed as threatened under the ESA. Critical habitat for these 4 listed species runs along the coast of both Oregon and California and encompasses accessible reaches of most rivers (including estuarine areas and tributaries) between the Columbia River in Oregon and the San Lorenzo River in Santa Cruz, California.[13]

For decades, coho salmon (particularly in the Pacific Northwest) have experienced die-offs in connection with stormwater runoff.[14] These die-offs regularly kill 60-90% of spawning coho salmon.[15] Until recently, researchers did not know why stormwater was particularly lethal to coho salmon. However, in 2021 Tian *et al*. solved this mystery in a groundbreaking study published in *Science*.[16] These researchers found that 6PPD-quinone is the "primary causal

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[7] *Id*. § 402.16.
[8] *Ctr. for Biological Diversity v. BLM*, 698 F.3d 1101, 1108 (9th Cir. 2012).
[9] 16 U.S.C. § 1536(d).
[10] *Washington Toxics v. EPA*, 413 F.3d 1024, 1034-35 (9th Cir. 2005).
[11] *National Wilderness Institute v. Corps*, 2005 U.S. Dist. LEXIS 5159 (D.D.C. Mar. 23, 2005).
[12] The CCC coho salmon ESU was originally listed as threatened in 1996 (61 Fed. Reg. 56138). In 2005, following a reassessment of its status NMFS reclassified the ESU as endangered (70 Fed. Reg. 37159)
[13] 64 Fed. Reg. 24049 (May 5, 1999), 81 Fed. Reg. 9251 (February 24, 2016)
[14] Tian *et al*., *A Ubiquitous Tire Rubber-Derived Chemical Induced Acute Mortality in Coho Salmon*, 317 SCIENCE 185, 185 (2021).
[15] Feist *et al*., *Roads to Ruin: Conservation Threats to a Sentinel Species Across an Urban Gradient*, 27 ECOLOGICAL APPLICATIONS 2382, 2383 (2018).
[16] Tian, *supra* note 14.

toxicant" for coho die-offs.[17] 6PPD-quinone is a chemical created by the oxidation of a 6PPD, a chemical ubiquitous in tires.

When tires degrade through natural wear and tear, they leach 6PPD into the environment. 6PPD leachates react with the atmosphere to create 6PPD-quinone. 6PPD-quinone then washes from roadways into waterways during storms. *Tian* found that urban streams in Seattle and San Francisco had higher concentrations of 6PPD-quinone than the concentration that would kill 50% of juvenile cohos in a 24-hour period.[18] In a subsequent study, *Tian* found that 6PPD-quinone was many times more toxic than initially suspected, and should be categorized as "very highly toxic" to aquatic organisms.[19]

Alarmed by the toxicity of 6PPD-quinone, 14 members of Congress sent a letter to NOAA and FWS in August of 2021 stating that the wildlife agencies "should be working with great urgency to gain a better understanding of this threat and to take any necessary actions to address it."[20]

In response, NOAA agreed that 6PPD-quinone is a "key chemical in the coho mortality phenomenon."[21] NOAA found that 6PPD-quinone is "very likely to cause sublethal toxicity to salmonids, at concentrations well below those that are killing adult coho in urban spawning habitats."[22] NOAA also stated that "if unaddressed, the urban mortality syndrome has the potential to critically undermine ongoing conservation and recovery efforts for west coast salmon populations near urban areas and highly populated coastal communities."[23]

NOAA recognized that the discovery of 6PPD-quinone would require NOAA to review various ESA programmatic consultations.[24] In some cases, NOAA recognized that acting agencies would "need to acknowledge and incorporate new and additional methods of stormwater management" to protect species like coho salmon.[25]

The science on 6PPD-quinone has evolved rapidly since *Tian's* landmark 2021 study. In the two years since, subsequent studies have found that 6PPD-quinone is lethal to other ESA-listed fish species, such as rainbow trout, brook trout, and chinook salmon.[26]

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[17] Tian, *supra* note 14 at 185.
[18] Tian, *supra* note 14 at 188.
[19] Tian *et al*., *6PPD-Quinone: Revised Toxicity Assessment and Quantification with a Commercial Standard*, ENVIRON. SCI. & TECH. Letters 140, 140, 144 (2022).
[20] Letter from Jared Huffman, Chair, Subcommittee on Water, Oceans, and Wildlife, to Richard Spinrad, NOAA Admin., and Martha Williams, Principal Deputy Director, USFWS (Aug. 19, 2021).
[21] Letter from Richard W. Spinrad, Under Sec. of Com. for Oceans and Atmosphere and NOAA Admin., to Marilyn Strickland, Ranking Member of Subcommittee on Railroads, Pipelines, and Hazardous Materials Comm. on Transp. and Infrastructure, U.S. House of Representatives (Oct. 15, 2021).
[22] *Id*.
[23] *Id*.
[24] *Id*.
[25] *Id*.
[26] Steelhead an anadromous subspecies of rainbow trout that are listed as threatened. It is likely that 6PPQ-quinone affects steelhead in similar ways to the rainbow trout used in the study. *See* Brinkmann *et al*., *Acute Toxicity of the*

Known mitigation measures can help prevent 6PPD-quinone from entering waterways. In June 2022, the Washington Department of Ecology has identified which best management practices are most effective at preventing 6PPD-quinone from reaching streams.[27] Additionally, in a biological opinion to the Washington Department of Transportation in March of 2023, NMFS recognized that "simple and inexpensive green infrastructure mitigation methods" are effective in reducing salmon mortality from stormwater events.[28]

In addition to impacts to threatened salmonids, the new information regarding the toxicity of 6PPD-quinone to coho and chinook salmon threatens the primary and secondary food sources for the Southern Resident killer whale — one of the world's most critically endangered marine mammals.[29] One of the major threats to this whale is starvation from lack of food sources. Since new information shows that 6PPD-quinone is a major threat to both chinook and coho salmon, 6PPD-quinone is also a threat to the Southern Resident killer whale because those fish are the whale's main food sources. [30] Concerningly, NMFS believes that there is a "high potential for bioaccumulation [of 6PPD-quinone] in aquatic species."[31] As long-lived creatures that eat primarily salmonids, 6PPD-quinone may accumulate in and threaten Southern Resident killer whales.

In August 2021 NMFS significantly expanded the critical habitat of these orcas to include coastal Oregon and Northern California.[32] The whale's new critical habitat includes an additional 15,910 square miles of coastal waters off the coasts of Washington, Oregon, and northern California. NMFS specifically named water quality to support growth and development, and "prey species of sufficient quantity, quality, and availability to support individual growth, reproduction, and development, as well as overall population growth" as the essential features of the critical habitat.[33] Prior to this expansion, NMFS did not recognize any critical habitat off the Oregon or California coasts. Since many of the highway projects will take place in Oregon and northern California's coastal zone, such projects and resulting 6PPD-quinone contamination will likely impact the orca's newly established critical habitat.

Tire Rubber-Derived Chemical 6PPD-Quinone to Four Fishes of Commercial, Cultural, and Ecological Importance, 9 ENVTL. SCI. & TECH. LETTERS 333 (2022); Bonnie P. Lo *et al*., *Acute Toxicity of 6PPD-Quinone to Early Life Stage Juvenile Chinook (Oncorynchus Tshawytscha) and Coho (Oncorhynchus Kitsutch) Salmon*, 4 ENVTL. TOXICOLOGY CHEMISTRY 815 (2023).

[27] See Wash. Dep't of Ecology, Stormwater Treatment of Tire Contaminants Best Management Practices Effectiveness, at appx. 4-1 (2022). Available at https://fortress.wa.gov/ecy/ezshare/wq/Permits/Flare/2019SWMMWW/Content/Resources/DocsForDownload/2022_SWTreatmentOfTireContaminants-BMPEffectiveness.pdf

[28] ENDANGERED SPECIES ACT SECTION 7(A)(2) BIOLOGICAL OPINION AND MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT ESSENTIAL FISH HABITAT RESPONSE FOR THE NATIONAL STEM SCHOOL PROJECT (HUC 171100190705), NMFS 32-33 (2023).

[29] *See* Lo, *supra* note 27.

[30] *See Diversity of Fish Species Support Killer Whale Diet Throughout the Year*, NMFS (Mar. 3, 2021), https://www.fisheries.noaa.gov/feature-story/diversity-fish-species-support-killer-whale-diet-throughout-year#:~:text=The%20Southern%20Residents%20have%20historically,other%20rivers%20entering%20Puget%20Sound.

[31] Letter from Richard W. Spinrad, *supra* note 21.

[32] 80 Fed. Reg. 41668 (Aug. 2, 2021).

[33] *Id.*

2. California and Oregon Biological Opinions

NMFS conducted programmatic consultations and issued Biological Opinions for highway maintenance activities to Caltrans in 2013 and to the Oregon Division of the FHWA in 2021.[34] Since then, a wealth of new scientific research has shown that 6PPD-quinone, which originates on highways and other roadways, is the chief chemical responsible for stormwater-related coho die-offs, and causes a range of negative impacts to ESA-listed chinook. Caltrans' and FHWA's activities facilitate vehicles driving on roadways resulting in the pollution of toxic chemicals. These actions are affecting ESA-listed salmonids to an extent not previously considered, and the action agencies and NMFS must reinitiate consultation to evaluate the impacts of 6PPD-quinone on listed salmonid species as required by the ESA.

a. Caltrans Biological Opinion

In 2013, NMFS issued a programmatic Biological Opinion to Caltrans covering roadway maintenance work in Caltrans Districts 1, 2, and 4. Caltrans is acting as the lead agency as per a Memorandum of Understanding between the FHWA and Caltrans pursuant to the Moving Ahead for Progress in the 21st Century Act. This law allows Caltrans to assume responsibility for the environmental review, consultation, or other actions required under any environmental law with respect to highway projects within the state of California where Caltrans uses money from FHWA. To the extent the FHWA is liable for Caltrans' failure to reinitiate consultation with NMFS, this letter provides notice to the FHWA pursuant to the 60-day notice requirement of the citizen suit provision of the ESA.

The Caltrans Biological Opinion covers roadway maintenance projects in coastal northern California, from the Oregon border to the San Francisco Peninsula. Caltrans Districts 1, 2, and 4 encompass much of the critical habitat for the 4 listed ESUs of coho salmon.[35] These districts also overlap with considerable portions of the critical habitat for California chinook and steelhead. The projects considered in the Caltrans Biological Opinion include slide abatement and repair, stabilization of streambanks and channels to minimize erosion, repaving existing roads, and maintaining drainage systems. These actions cumulatively contribute to the pollution of 6PPD-quinone in California waterways inhabited by coho salmon.

The Caltrans Biological Opinion found that the authorized highway projects may affect, but were not likely to jeopardize any population of anadromous fish, or adversely affect any critical habitat. The Biological Opinion permits some capture and relocation of listed salmonids, along with clearance to kill or injure small numbers of fish.[36] It did not consider impacts to the endangered Southern Resident killer whale.

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[34] BIOLOGICAL OPINION FOR CALTRANS' ROUTINE MAINTENANCE AND REPAIR ACTIVITIES IN DISTRICTS 1, 2, AND 4, AND INDIVIDUAL CORPS PERMITS FOR THESE ACTIVITIES (2013) (hereinafter Oregon BiOp); REINITIATION OF THE ENDANGERED SPECIES ACT PROGRAMMATIC BIOLOGICAL OPINION AND MAGNUSON-STEVENS ACT ESSENTIAL FISH HABITAT RESPONSE FOR THE FEDERAL-AID HIGHWAY PROGRAM IN THE STATE OF OREGON (FAHP) (2021) (hereinafter California BiOp).

[35] *See State of Salmon in California*, CASALMON, casalmon.org.

[36] California BiOp at 98.

In discussing the status of listed salmon species in the action area, Caltrans lists habitat degradation by urban development, agriculture, logging, dams, and dredging as reasons for the declines in population.[37] However, the Biological Opinion does not consider stormwater runoff of 6PPD-quinone as a threat to listed salmonids. In addition, the Biological Opinion only considers the impacts of toxic chemicals that Caltrans actions will introduce during construction and maintenance – it does not consider the toxic chemicals that may enter salmonid waterways once construction and maintenance activities are complete.[38]

In analyzing the cumulative effects of non-federal actions on listed salmonids, NMFS recognizes that population growth in California will decrease the quality and quantity of fish habitat.[39] But the analysis only considers the development side of population growth, such as land use changes. The Biological Opinion does not consider the effect of tens of thousands of additional cars travelling on coastal California roadways, and the 6PPD-quinone in stormwater runoff resulting from that travel. Caltrans maintenance of roadways is "necessary to maintaining the function and safety of roads" – without these actions, vehicles would be unable to travel on most roadways in the action area. As a result of Caltrans' actions in maintaining those roadways and drainage systems, car traffic will continue to increase and result in increased tire pollution in stormwater.

b. Oregon Biological Opinion

The 2021 Oregon Biological Opinion is also a programmatic consultation that covers highway projects that occur within salmon-inhabited watersheds. The Oregon Biological Opinion predicts that Oregon Division of the FHWA will fund 171 transportation projects annually within areas accessible to anadromous fish. The 2021 Biological Opinion is the product of reconsultation between the Oregon Division of the FHWA and NMFS regarding highway maintenance. The FHWA reinitiated consultation because it sought to significantly increase the number of projects from 247 total projects over a nine-year period to a predicted average of 171 projects per year.[40]

The Oregon Biological Opinion, like its California cousin, found that the highway projects were not likely to jeopardize any population of anadromous fish, or adversely affect critical habitat. The Oregon Biological Opinion's ITS permits thousands of fish to be captured, hundreds of acres to be paved and de-vegetated, and tens of thousands of linear feet of streamside to be hardened annually.[41] The Oregon Biological Opinion also found the projects at issue were not likely to adversely affect the endangered Southern Resident killer whale.

Similar to the Caltrans Biological Opinion, the Oregon Biological Opinion does not consider how proposed action will contribute 6PPD-quinone to waterways. There are numerous ways in which the projects encompassed by this Biological Opinion would do just that.[42] First,

[37] *Id*. at 72-73
[38] *Id*. at 89.
[39] *Id*. at 93.
[40] Oregon BiOp at 2, 50.
[41] Oregon BiOp at 94.
[42] *Id*. at 66.

some of the Oregon projects will add lanes to existing roads, which could increase the volume of traffic passing through an area.[43] More traffic volume means more 6PPD-quinone runoff. Second, NMFS recognized that some of Oregon's projects will "affect downstream aquatic habitats where…contaminants from … post-construction highway runoff" will discharge into waterways.[44] While the Biological Opinion considers many pollutants as post-construction, concerning stormwater pollutants for salmonids, it does not cite tire leachates as a pollutant of concern.[45] Third, the Oregon projects will add over 500 acres of new, impervious surfaces each year in salmon-inhabited watersheds.[46] Impervious surfaces increase stormwater runoff, and therefore increase the potential concentration of 6PPD-quinone. Fourth, the Oregon projects will also harden 40,000 linear feet of streambanks each year. While NMFS recognized that streambank hardening can decrease water quality by increasing erosion, NMFS did not analyze whether streambank hardening may increase stormwater runoff into streams.[47]

The actions of Caltrans and the FHWA facilitate the ongoing pollution of waterways with 6PPD-quinone. It is likely that some of the maintenance projects will increase the flow of 6PPD-quinone into waterways by altering the speed and volume of runoff, the grade of the landscape, the acreage of impermeable surfaces, the structure of the streambank, and increasing the volume of traffic in a watershed. Neither Biological Opinion has mitigation measures in place that explicitly target reducing 6PPD-quinone contamination in waterways.

III. LEGAL VIOLATIONS

"The duty to reinitiate consultation lies with both the action agency and the consulting agency."[48] Agencies must reinitiate consultation when "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."[49] Agencies must also reinitiate consultation "[i]f a new species is listed or critical habitat designated that may be affected by the identified action."[50]

NMFS, Caltrans, and the FHWA are in violation of section 7 of the ESA for failing to reinitiate and complete consultation following new information demonstrating toxicity to listed salmon species from tire pollution in stormwater runoff. NMFS, Caltrans, and the FHWA must reinitiate consultation for those actions that result in toxic tire pollution entering streams inhabited by listed salmon, and mitigate the impacts of 6PPD-quinone on sensitive listed species.

Here, the discovery of 6PPD-quinone's acute toxicity to coho salmon and chinook salmon occurred after publication of the aforementioned Biological Opinions, both of which

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[43] *See* Jamey M.B. Volker *et al*., *Induced Vehicle Travel in the Environmental Review Process*, 2674 TRANS. RES. RECORD 7, 468 (2020).
[44] Oregon BiOp at 50.
[45] Instead, the BiOp cites only "nutrients, metals, petroleum-related compounds, sediment washed off the road surface, and agricultural chemicals used in highway maintenance" as the source of potent adverse effects to salmonids. *Id*. at 65.
[46] *Id*. at 94.
[47] *Id*. at 59.
[48] *Salmon Spawning & Recovery Alliance v. Gutierrez*, 545 F.3d 1220, 1229 (9th Cir. 2008).
[49] 50 C.F.R. § 402.16(a)(2).
[50] *Id.* § 402.16(a)(4).

pertain to actions resulting in tire pollution and toxic stormwater affecting federally threatened or endangered populations of coho and chinook salmon.[51] The alarming new evidence on the toxicity of 6PPD-quinone to listed salmonids qualifies as new information that requires the reinitiation of ESA consultation.

The newly designated Southern Resident killer whale critical habitat also triggers the agencies' obligation to reinitiate consultation. In addition to the impacts of the actions on listed salmonids, the Biological Opinions must consider the how the runoff of 6PPD-quinone from the authorized projects and their aftermath will impact the food sources, critical habitat, and bioaccumulation for the Southern Resident killer whales.

Yet NMFS and Caltrans have failed to reinitiate and complete new ESA consultation on the highway maintenance activities analyzed in the California Biological Opinion. Likewise, NMFS and FHWA have failed to reinitiate and complete new ESA consultation on the highway maintenance activities in the Oregon Biological Opinion. The agencies' failure to do so violates the agencies' procedural and substantive duties under section 7(a)(2) of the ESA.

In their 2021 letter to Congress, NMFS proclaimed its desire to ensure ESA section 7 "analyses of actions involving stormwater management adequately assess the known impacts of this contaminant on aquatic life and habitat."[52] The agency further claimed its intent to evaluate programmatic consultations involving 6PPD-quinone and listed salmonids in order to "tak[e] a holistic look at these consultations to ensure Federal agency programs provide an adequate overall level of stormwater treatment." Reinitiation of consultations for the programmatic biological opinions discussed above will allow the action agencies to fully examine the effects of highway projects in California and Oregon on ESA-listed salmon and incorporate stormwater management treatments that are most effective at preventing 6PPD-quinone from entering waterways.

IV. CONCLUSION

For the foregoing reasons, if NMFS, Caltrans, and the FHWA do not correct these violations of the ESA within 60 days, the Center for Biological Diversity may file suit under the ESA's citizen suit provision. We urge the agencies to contact us regarding this letter to discuss options for avoiding litigation over this claim or to provide us with any further information. Thank you for your prompt attention to this matter.

[51] California BiOp at 46-47; Oregon BiOp at Table 3.
[52] *See* Letter from Spinrad, *supra* note 21.

Sincerely,

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