State of California – Natural Resources Agency
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January 11, 2024

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General Waste Discharge Requirements and General Water Quality Certification for Rural Road and Watercourse Construction and Reconstruction in the North Coast (Order), Initial Study/Mitigated Negative Declaration, SCH# 2023120022

Dear Jim Burke:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt a Mitigated Negative Declaration from Regional Water Quality Control Board, North Coast Region 1 (NC RWQCB) for the Order pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Order that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Order that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, subsequent projects approved under the Order may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of subsequent projects may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

PROJECT DESCRIPTION SUMMARY

Proponent: NC RWQCB

Objective: The objective of the Order is the issuance of General Waste Discharge Requirements and General 401 Water Quality Certification to address and regulate pollutant discharges and potential impacts to waters of the state from activities associated with projects that include construction, reconstruction, or decommissioning of rural road segments and watercourse crossings and to ensure that such projects incorporate appropriate best management practices. Additionally, the Order will ensure that rural road projects implement all applicable provisions of the Water Quality Control Plan for the North Coast Region (Basin Plan), provide an efficient permitting mechanism to ensure adequate regulatory oversight, and that covered projects are designed and implemented to prevent or minimize sediment discharges and other impacts to beneficial uses of water. The proposed Order would require the enrollment of fees, implementation of management practices, and monitoring and reporting of associated activities. The Order activities do not include development activities associated with rural road segments and watercourse crossings.

Location: Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Modoc, Shasta, Siskiyou, Sonoma, and Trinity Counties.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist NC RWQCB in adequately identifying and/or mitigating the Order's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on the Order's avoidance of significant impacts on biological resources with implementation of mitigation measures, CDFW concludes that a Mitigated Negative Declaration is appropriate for the Order.

I. INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

Comment #1

Section: Brief Description of Project – Background, (page 5)

Issue: The draft Order Initial Study and Mitigated Negative Declaration (IS/MND) provides an inaccurate reference and authorship for the most recent publicly available updated *Handbook of Forest, Ranch and Rural Roads*. The Pacific Watershed Associates publication was last updated in April 2015, with Weaver, Weppner, and Hagans as the credited contributors (this paragraph omits Weppner in the citation reference).

Specific Impact: A search for the document using the citation provided and the attributed authors may result in earlier, outdated versions of the *Handbook for Forest, Ranch and Rural Roads* (Weaver et al, 2015).

Recommendation: CDFW recommends revising the IS/MND to include the most up to date citation and reference for the most current available edition: https://www.pacificwatershed.com/sites/default/files/RoadsEnglishBOOKapril2015b.pdf

Comment #2

Section: Other Public Agencies whose approval is required, (page 11)

Issue: The document states: "Section 1602 of the California Fish and Game Code requires any person, state or local governmental agency, or public utility to notify California Department of Fish and Wildlife (CDFW) before beginning any activity that will substantially modify a river, stream or lake." This paraphrasing of Fish and Game Code section 1600 et seq. may misconstrue the need to notify CDFW of projects that may impact rivers, streams lakes and streambeds per California Fish and Game Code sections 720 and 1602.

Under California Fish and Game Code section 1603, subdivisions (A) and (B), CDFW determines if a project **may** be a substantial alteration that warrants an agreement. Fish and Game Code section 720 provides that for the purposes of implementing Fish and Game Code sections 1601 and 1603 in Waters of Department Interest, "… any project that will divert, obstruct or change the natural flow or bed of any river, stream or lake designated by the department, or will use material from the streambeds designated by the department, all rivers streams, lakes, and streambeds in the State of California, including rivers, streams and streambeds which have intermittent flows of water, are hereby designated for such purpose."

Specific Impact: Stating that CDFW Notification is required only for activities that **will** substantially modify a river, stream, or lake may result in unlawful encroachments to Waters of Department Interest. CDFW should be notified whenever a project **may** modify a river, stream, or lake so it may determine if a lake and streambed alteration agreement (LSA Agreement) is required to avoid significant impacts to biological resources.

Why the Impact Would Occur: Potential substantial adverse impacts to CDFW trustee resources may occur that would be reduced or avoided through a lake and streambed alteration agreement measures. The absence of a complete Notification for encroachments in Waters of Department Interest prevents CDFW from determining whether a substantial adverse effect may occur.

Recommendation: CDFW recommends revising the third sentence of the first paragraph of Item 8 on page 11 to:

- California Fish and Game Code section 1602(a) requires any person, state or local government agency, or public utility to notify the California Department of Fish and Wildlife (CDFW) prior to any activity in a river, stream, lake, or streambed (including rivers, streams and streambeds that have intermittent flow) to allow CDFW to determine if the activity may result in substantial adverse impacts to existing fish and wildlife through a submission of a complete Notification.

Comment #3

Section: Environmental Checklist Item IV. – Biological Resources, (page 18)

Issue: Recently, it has been shown that a chemical contaminant derived from vehicle tires, N-1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine (6PPD) is toxic to the survival of coho salmon (Tian et al. 2021; Greer et al. 2023). 6PPD-quinone is toxic toward aquatic organisms at multiple trophic levels, can impair wildlife survival, and is phytotoxic. The IS/MND and General Order do not discuss 6PPD or contain any measures to prevent or mitigate its effects.

Specific Impact: 6PPD-quinone, a reaction product of 6PPD, is acutely toxic to coho salmon, including juveniles, and kills fish just a few hours after exposure. In streams draining into Puget Sound, Washington State, high levels of pre-spawn mortality recorded in many coho salmon populations were associated with the input into streams of chemical contaminants from vehicle tires (Scholz et al. 2011).

Why the Impact Would Occur: Water quality sampling in San Francisco Bay area streams has shown that levels of 6PPD exist in many streams which are potentially toxic to coho salmon survival (DTSC 2022). The extent of potential impacts in watersheds in the SONCC coho salmon ESU may be less than other more urban areas due to the lower human population density. However, the presence of 6PPD-quinone in California runoff and some waterways at concentrations above levels that kill at least half of coho salmon in laboratory studies suggests that exposure to 6PPD-quinone may have contributed to the recent decline in coho salmon populations in some coho salmon streams. Further Investigations are now continuing into the potential link between 6PPD and the survival of coho salmon and other aquatic life in California waters (DTSC 2022).

Evidence Impact Would be Significant: 6PPD has recently been identified as the causal agent in urban runoff mortality syndrome observed in the Puget Sound, Washington area and is known to cause mortality in adult coho salmon as they migrate upstream, before they are able to spawn (Tian et al. 2021).

Recommendation: CDFW recommends that the Initial Study provide analysis on the impact of 6PPD on biological resources from the Order. Additionally, CDFW recommends the Order and Attachment A include measures to prevent runoff containing 6PPD from entering watercourses, such as a bridge capture runoff system which directs to a land-based bio-filtration system (McIntyre et al. 2015), to prevent direct runoff of untreated water on bridge decks from entering salmonid bearing waterways.

Comment #4

Section: Environmental Checklist Item IV. – Biological Resources item (a), (page 18 - 20)

Issue: The measures included in Attachment A are insufficient mitigations to support the *Less Than Significant with Mitigation* determination provided in Environmental Checklist IV. – Biological Resources item (a).

Why the Impact Would Occur: Without mitigation based on pre-project biological assessments and surveys, activity under the Order may result in adverse significant impacts to special status species of wildlife, fish, plants, and sensitive natural communities, including state and federally threatened and endangered species. Disclosure of special status species that may be impacted by the activity and appropriate mitigation to reduce said impacts to less than significant are necessary to ensure that impacts are truly "less than significant".

Recommendation: To reduce the potential adverse significant impacts to sensitive species (including state and federally listed species) to be consistent with a *Less Than Significant with Mitigation* determination, CDFW recommends revising the Order and the Order's Attachment A to include all of CDFW's recommendations regarding biological assessments and surveys to reach a *Less Than Significant with Mitigation* determination, provided in Comments 10, 11, 15, 20, and 22.

Comment #5

Section: Environmental Checklist Item IV. – Biological Resources (b), (page 18 and 20)

Issue: The discussion supporting the *Less Than Significant with Mitigation* determination includes a work season (April 2 to October 14) that is likely to result in significant impacts to special status anadromous salmonids in northern coastal watersheds, (such as coho salmon (*O. kisutch*) that begin spawning in October (CDFW, 2002), and steelhead trout (*O. mykiss*) that spawn through May (Busby et al., 1996)). Due to the allowable work season, the Order is not consistent with the IS/MND Environmental Checklist Item IV. – Biological Resources items a) and b) *Less than Significant Impact with Mitigations* determination.

Specific Impact: Short-term impacts to anadromous salmonids from activities under the Order between October 15 and November 15 and between April 2 and June 1 may result in impacts (including the potential for take under Fish & G. Code, § 2080 et seq. to state and federally listed anadromous salmonids, (coho salmon (*O. kisutch*)) and steelhead trout (*O. mykiss*)).

Why the Impact Would Occur: The impact would occur in coastal watersheds that support coho salmon and steelhead trout during rain events in hydrologically connected non-winterized active work sites from October 15 to November 14, and April 2 to June 1. The Order provides a winter weather period activity and winterization measure that may result in the delivery of fine sediment into streams during periods when eggs and alevin may be vulnerable to siltation in the redd. While the draft Order includes temporary erosion control measures for forecasted rain events and control of sediment during activities, less than full winterization for the winter weather period erosion control may not be sufficient to avoid activity-generated sediment from adversely impacting salmonid redds.

Recommendation: To reduce potential impacts to *Less than Significant with Mitigation* for Environmental Checklist Item IV. – Biological Resources, CDFW recommends that the Order include the following:

- The use of heavy equipment and excavation in areas hydrologically connected to a stream (or watercourse) shall not occur between October 15 and June 1 without written approval from Regional Water Board staff, and if activities are to occur after October 15, winterization erosion control materials shall be stockpiled and available for installation on site, and shall be installed within 24-hours of a forecasted precipitation event greater 0.25 inches in 24-hours or 1-inch over 5 days.

Comment #6

Section: Environmental Checklist Item IV. – Biological Resources (d), (page 18 and 21)

Issue: This item indicates that the Order will have a *Less Than Significant Impact* (without mitigation) to the movement of any native resident or migratory fish or wildlife species, or impede the use of native wildlife nursery sites or wildlife corridors. The discussion suggests that projects will improve ecological connectivity, however measures in the Order's Attachment A are not sufficient to avoid substantial adverse impacts to migratory connectivity for native fish and wildlife that may occur within the stream or riparian area. The Order does not include sufficient mitigations to support the *Less than Significant Impact* determination for Environmental Checklist Item IV. – Biological Resources item (d).

Specific Impact: New crossings implemented under the Order may reduce or disconnect riparian areas. Additionally, new crossings may significantly restrict or alter the stream's hyporheic function, resulting in disconnection of instream aquatic habitats at the crossing. These migratory corridors are important in intermittent and ephemeral streams during periods when the surface flow is minimal or absent (Boulton et al, 1998; Feral et al, 2005; Rosario & Resh, 2000).

Why the Impact Would Occur: Disconnection of riparian areas and degradation of the instream hyporheic zone at stream crossings may significantly interrupt the migratory paths of special status fish, reptiles, and amphibian species. Species that undertake seasonal overland movements within the riparian area to or between instream breeding sites may be subject to re-routing or exclusion to breeding sites. Potentially negatively impacted species include California newt (*Taricha torosa*) and red-bellied newt (*T. rivularis*). Roadbuilding and road crossing that results in mortality are identified as threats (Thompson et al, 2016). The re-routing resulting from new roads and stream crossings may increase mortality and contribute to habitat fragmentation, an identified concern for populations (Brehme et al, 2018; Thompson et al, 2016).

Additionally, the loss of hyporheic connectivity may fragment habitat for special status species that persist within, or rely upon, the interstitial space within gravel and cobble of the streambed for forage when surface water is low or absent (for example, southern torrent salamander (*Rhyacotriton variegatus*), California giant salamander *(Dicamptodon ensatus*), and coastal tailed frog (*Ascaphus truei*).

Recommendation: CDFW recommends that item (d) indicate that the Order may result in impacts *Less Than Significant with Mitigation* and update Attachment A to include sufficient mitigation to reduce impacts to riparian corridors and the stream hyporheic zone at new and upgraded stream crossings. Mitigation may include additional best management practices (BMPs) addressing connectivity impacts to the riparian area and impacts to the hyporheic function of streams that may support aquatic habitats.

II. DRAFT ORDER

Comment #7

Section: II. General Requirements – (e), (page 10)

Issue: The allowable work season (April 2 to November 14) may result in substantial unmitigated impacts to state and federally listed salmonids during the spawning season within the North Coast region (per the discussion in Comment 4), and degradation of amphibian breeding sites. Due to the allowable work season, the Order is not consistent with the IS/MND Environmental Checklist Item IV. Biological Resources item a) *Less than Significant Impact with Mitigation* determination.

Specific Impact: Work in hydrologically connected areas during the Northern California wet weather season (September through June) may result in sediment entering streams that support anadromous salmonids or amphibians, when eggs or young are most vulnerable to the impacts of sediment. Coho salmon (*Oncorhynchus kisutch*) begin spawning in October while steelhead trout (*O. mykiss*) redds may persist into June (CDFW, 2002; Busby et al.1996). Foothill yellow-legged frog egg masses are laid in the late spring with tadpoles present into the summer months (Thompson et al. 2016).

Why the Impact Would Occur: Work under the Order's allowable work season (April 2 to November 15) may destabilize soils in areas hydrologically connected to streams that support special status species. Northern California experiences

precipitation from September through June, often in the form of atmospheric river events. This corresponds to the natural history of the anadromous fish and stream breeding amphibians of the North Coast region. While the Order's Attachment A includes temporary erosion control measures for forecasted rain events and control of sediment during activities, less than full winterization for the winter weather period erosion control may not be sufficient to avoid activity generated sediment during high flow events. If soil destabilizing work in areas where potential intense precipitation events may increase surface run-off or dramatically increase instream flow (with potential peak flow events for the water year), a substantial increase in the delivery of sediment into the stream that degrades active redds and egg masses, or reduces rearing/foraging habitat for vulnerable salmonid fry and larval amphibians is likely. The substantial impacts may include take of state and federally listed species.

Recommendation: To reduce the potential for substantial impacts to anadromous salmonids and amphibians from sediment impacts to *Less than Substantial with Mitigation*, CDFW recommends revising the Order Section II (e) to limit project activities to the period between June 1 to October 14, unless a site-specific request is authorized. If a site-specific authorization is granted, CDFW recommends that Order Section II e. includes the condition that winterization erosion control materials shall be stockpiled on-site and available for deployment during the extent of activity between October 15 and November 15, and between April 2 and June 1.

Comment #8

Section: IV. Monitoring and Reporting – (a) Monitoring Inspections (1.) i. and ii., (page 13)

Issue: The implementation inspection date needs to be on or before October 15 in watersheds that support coho salmon and should be consistent with work period dates.

Specific Impact: The need for corrective action may not be identified until after substantial adverse impacts have occurred.

Why the Impact Would Occur: If the corrective action (as a result of an implementation inspection) is not identified and addressed before coho salmon are spawning in October in the affected reach, the potential significant adverse impacts may occur, which could include take.

Recommendation: CDFW recommends revising the inspection dates to be consistent with the CDFW recommended work period dates for watershed that support coho salmon to reduce the likelihood of substantial impacts to spawning coho salmon.

III. DRAFT ORDER – ATTACHMENT A

Comment #9 – Refer to Comment 4, 6, & 7

Section: II. Standard mitigation measures for Rural Road Projects – *Temporal Limitations on project activities*, 1st bullet point, (page 1)

Issue: The temporal limitations (November 15 to April 1) within the Order's Attachment A are not sufficient mitigations for short-term substantial impacts to special status fish and amphibians at-or-below stream crossings or other instream work sites. The temporal limitation is not consistent with a *Less than Significant with*

Mitigation determination for IS/MND Environmental Checklist IV Biological Resources Item (a).

Specific Impact: Work in hydrologically connected areas during the Northern California wet weather period (September through June) may result in sediment entering streams that support anadromous salmonids, or amphibians when eggs or young are most vulnerable to the impacts of sediment. Coho salmon (*Oncorhynchus kisutch*) begin spawning in October while steelhead trout (*O. mykiss*) redds may persist through May (CDFW, 2002). Foothill yellow-legged frog egg masses are laid in the late spring with tadpoles present into the summer months (Thompson et al. 2016).

Why the Impact Would Occur: Work under the Order's allowable work season (April 2 to November 15) may destabilize soils in areas hydrologically connected to streams that support special status species. As expressed above, Northern California experiences precipitation from September through June often in the form of atmospheric river events. If soil-destabilizing work occurs in areas prone to intense precipitation events and increased surface run-off or instream flow (with potential peak flow events for the water year), there is the likelihood for a surge of sediment delivery into the stream which would degrade active redds and egg masses and reduce rearing/foraging habitat for vulnerable salmonid fry and larval amphibians. The substantial impacts may include take of state and federally listed species.

Recommendation: CDFW recommends revising the Order's Attachment A General Mitigation Measures, *Temporal Limits on project activities* to limit project activities to June 1 to October 14, unless a site-specific request is authorized. If a site-specific authorization is granted, CDFW recommends that the *Temporal Limits on project activities* includes the condition that winterization erosion control materials shall be stockpiled on-site and available for deployment during the extent of the activity from October 15 to November 15, and April 2 to June 15.

Comment #10

Section: II. Standard mitigation measures for Rural Road Projects – *Limitation on Earthmoving* 3rd bullet point, (page 2)

Issue: The measures for earthmoving and disturbance of native vegetation and tree removal omit mitigation measures that reduce impacts to special status plants, sensitive natural communities, and the wildlife that depend on them to *Less Than Significant with Mitigation* per Environmental Checklist Item IV Biological Resources (a).

Specific Impact: Ground and vegetation disturbance may result in significant impacts to special status native plants, sensitive natural communities, and oak woodlands that occur within the project area.

Why the Impact Would Occur: Grading may remove or damage plants and the habitats on which they depend, affect population viability by degrading the local seed bank, and disrupt the site-specific conditions that support a sensitive plant population or native natural community. Placing or storing spoils on native ground that supports rare plant species or special status natural communities may alter site conditions (through burying or soil compaction) and reduce or imperil a distinct population of special status plant or a sensitive natural community. Removal of oak (*Quercus spp.*) may contribute to the decline of oaks in sensitive oak woodlands.

Recommendation: To reduce potential impacts to special status plants and sensitive natural communities to *Less Than Significant with Mitigation*, CDFW recommends revising the Order Attachment A, Standard Mitigations *Limitation on Earthmoving* to include:

- Prior to earthmoving, placement of soil or spoils on undisturbed areas, or modifying vegetation, the project shall include the appropriate measures to avoid, reduce, and mitigate impacts to special status plants and sensitive natural communities. Measures shall be based on a biological assessment performed by a qualified biologist that is informed by a 9-quad occurrence search of the California Natural Diversity Database (CNDDB), an assessment of project area habitat types, and the appropriate completed CDFW endorsed protocol floristic surveys.

Comment #11

Section: II. Standard mitigation measures for Rural Road Projects – *Limitation on Earthmoving,* (page 2)

Issue: The measures for earthmoving and the disturbance of native vegetation and tree removal omits mitigation measures that reduce impacts to birds to *Less than Significant with Mitigation* per Environmental Checklist Item IV Biological Resources (a).

Specific Impact: Ground and vegetation disturbance may result in substantial direct impacts to birds and raptors through the loss of important habitat elements such as nesting, foraging and granary resources, and riparian habitat removal during the nesting season.

Why the Impact Would Occur: Grading, vegetation modification, or tree removal may remove or degrade nesting and foraging habitat for birds. Additionally, project activities during the bird breeding season may result in the unlawful destruction of birds, bird nests and eggs – including raptors (Fish & G. Code, §§ 3503, 3503.5 & 3515).

Recommendation: To reduce potential impacts to birds and raptors to *Less Than Significant with Mitigation*, CDFW recommends revising Order Attachment A, Standard Mitigations *Limitation on Earthmoving* to include:

- Prior to earthmoving, placement of soil or spoils on undisturbed areas, or modifying vegetation; the project shall include the appropriate measures to avoid, reduce, and mitigate impacts to birds and raptors. Measures shall be based on a biological assessment performed by a qualified biologist that is informed by a 9-quad occurrence search of the California Natural Diversity Database (CNDDB), an assessment of project area habitat types, and the appropriate completed CDFW endorsed protocol bird and raptor surveys.

Comment #12

Section: *Limitation on Construction Equipment* – 9th bullet, (page 3)

Issue: Use of petroleum-based saw lubricant (chainsaw bar oil) for saws used to cut and remove instream wood and other materials may release petroleum into the stream. Use of chainsaws may release sawdust into the stream.

Specific Impact: Petroleum is hazardous to fish and wildlife. California Fish and Game Code section 5650 makes it unlawful to deposit into, permit to pass into, or place where it can pass into the waters of the state, any petroleum or sawdust.

Why the Impact Would Occur: Use of chainsaws for vegetation clearing, tree falling, and sawing other materials in or near the stream may result in petroleum with sawdust entering the stream.

Recommendation: CDFW recommends that the Order's Attachment A *Limitation on Construction Equipment* 9th bullet indicates that biodegradable chainsaw bar oil and other biodegradable petroleum alternatives shall be used whenever feasible to reduce potential delivery of petroleum to the stream.

Comment #13

Section: *Erosion Control* – 2nd bullet, (page 4)

Issue: The measure identifies "work within the 5-year floodplain" as the metric for installing temporary erosion controls. This criterion is not easily identified in the field and this imprecise metric is not sufficient to support the Environmental Checklist IV Biological Resources (a) *Less Than Significant with Mitigation* determination.

Specific Impact: Including a criterion for erosion control based on difficult to discern metrics can result in inappropriately installed erosion control that could result in deleterious materials (sediment) entering the stream and impacting aquatic resources.

Why the Impact Would Occur: Unless hydraulic analysis for the stream reach has identified the vertical and lateral extent of a 5-year flood event, the 5-year floodplain may not be easily identifiable from a 2-year event (overtopping bankfull stage), or a 10-year event. Impacts from sediment due to incorrectly installed erosion controls can significantly impact downstream fish and wildlife and the aquatic resources on which they depend.

Recommendation: Revise the *Erosion Control* 2nd bullet point to include clearly defined metrics for the effective installation of temporary erosion controls (such as within 50-feet to a Class III watercourse, 100-feet from a Class II watercourse, and 150-feet from a Class I watercourse).

Comment #14

Section: *Miscellaneous* – 2nd bullet point, (page 4)

Issue: The measure limiting the operation of vehicles and equipment in the vicinity of streams is unclear and may result in impacts to riparian areas and aquatic resources. This measure is not sufficient to support the *Less Than Significant with Mitigation* determination per the Environmental Checklist IV Biological Resources item (a).

Specific Impact: The operation, storage, fueling, cleaning, or maintenance of vehicles in the stream is likely to result in petroleum and other deleterious materials entering the stream.

Why the Impact Would Occur: The measure conditions the operation of vehicles based on the destruction of riparian and aquatic resources but does not avoid unintended impacts to vehicle use in the area of streams that can degrade riparian area and aquatic habitats.

Recommendation: To reduce impacts to aquatic special status species to *Less Than Significant with Mitigation*, CDFW recommends revising the *Miscellaneous* 2nd bullet point to include:

- Vehicles shall not be operated in the stream except the minimum necessary to complete the project; no vehicle may be fueled, cleaned, maintained, or stored within 50-feet of a Class III watercourse, 100-feet of a Class II watercourse, or 150-feet of a Class I watercourse, and no vehicle shall be operated or placed where it may deliver petroleum to the stream (per Fish and G. Code, §§ 5650 & 5652.)

Comment #15

Section: *Miscellaneous* – 3rd bullet, Disturbance of riparian vegetation, (page 4)

Issue: The measure for the disturbance of riparian vegetation, without mitigation measures informed by breeding bird and raptor surveys performed by a qualified biologist, omits measures that reduce impacts to birds to *Less Than Significant with Mitigation* per Environmental Checklist Item IV Biological Resources (a).

Specific Impact: The loss of important habitat elements such as nesting, foraging, and granary resources, and riparian habitat removal during the nesting season may result in direct impacts to nesting birds and raptors.

Why the Impact Would Occur: Vegetation disturbance or tree removal may remove or degrade nesting and foraging habitat for birds. Additionally, project activities during the bird breeding season may result in the unlawful destruction of birds, bird nests and eggs; including those of raptors (Fish & G. Code, § 3503, 3503.5 & 3515.)

Recommendation: To reduce potential adverse impacts to birds and raptors to *Less Than Significant with Mitigation*, CDFW recommends revising Order Attachment A, Standard Mitigations *Miscellaneous* 3rd bullet to include:

- Appropriate mitigations for vegetation disturbance informed by a biological assessment (based on a 9-quad occurrence search of the California Natural Diversity Database (CNDDB) and project area habitat types) for the project area and the surrounding affected area; and the appropriate surveys, as warranted, by a qualified biologist. Mitigations may include restricting vegetation disturbance to outside the bird nesting season (February to September).

Comment #16

Section: *Channel Excavation and stream bank stabilization* – 3rd paragraph, (page 5)

Issue: The measure prescribes stabilizing channel side slopes (banks) to a stable angle but describes reducing the slope to **less than 2:1**. Reducing the 2:1 ratio would result in steepening bank slopes and increasing erosion potential that seems counter to the intent of the Order.

Specific Impact: Reducing the slope ratio increases the vertical angle and percent slope (a 2:1 horizontal to vertical slope is equal to a 27° angle (50% slope), where a 1.5:1 slope is equal to a 34° angle (67% slope), and a 1:1 slope is equal to a 45° angle (100% slope). Increasing the slope results in a flatter, more stable bank.

Why the Impact Would Occur: Reducing the bank slope increases the likelihood of bank erosion delivering deleterious sediment to the streams, which may result in impacts to aquatic resources.

Recommendation: To reduce the impacts to special status aquatic resources to *Less Than Significant with Mitigation*, CDFW recommends revising the *Channel*

Excavation and streambank stabilization section to state: "If the streambank is disturbed, the banks shall be pulled back to a slope equal to or greater (flatter) than 2:1 horizonal to vertical or to the natural material grade.

Comment #17 – Refer to comments 4, 6, 7, & 8

Section: *Channel Excavation and stream bank stabilization* – 5th paragraph, (page 5)

Issue: The date (November 15) is inconsistent with a similar measure for *Earthmoving* within the channel and bank on the Order's Attachment A page 2 and may result in significant adverse impacts. See Comment 4, 6, 7, and 8 for discussion as to how the November 15 day does not support the *Less Than Significant with Mitigation* determination for IS/MND Environmental Checklist IV Biological Resources Item (a).

Specific Impact: Channel excavation and streambank stabilization activity in October is more likely to have significant impacts to special status species in watersheds where coho salmon are spawning.

Why the Impact Would Occur: The coho salmon, a special status species with a central California Coast population that is listed as endangered under the California Endangered Species Act (Fish & G. Code, § 2080 et seq.), begin spawning in October (CDFW, 2002). Excavation of the stream and banks during spawning season increases the risk for sediment to degrade downstream coho salmon redds.

Recommendation: CDFW recommends revising the Order Attachment A, *Channel Excavation and stream bank stabilization* 4th paragraph to October 15, consistent with the date provided in the *Earthmoving* mitigation measure on page 2, to reduce potential significant impacts to coho salmon to *Less Than Significant with Mitigation*.

Comment #18

Section: *Limitations on Work in Streams and Wet Areas* – 4th bullet point, (page 6)

Issue: The measure identifies activity as "restoration work" in Class I watercourse (streams that historically or currently support fish) and specifies that stream shape and gradient will allow fish passage. However, fish passage through a stream reach depends on additional stream characteristics (such as streambed morphology and factors influencing the stream reaches above and below a stream crossing). In streams that support special status salmonids, designs for fish passage should follow the guidelines provided by the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, Southwest Region (NOAA - NMFS, 2023). The Order's Attachment A measure does not support the *Less Than Significant* or a *Less Than Significant with Mitigation* determination for IS/MND Environmental Checklist IV Biological Resources Item (d) – see Comment #5.

Specific Impact: The Order's design criteria is not sufficient to allow unimpeded fish passage and may result in partial or full barriers to fish passage. Preventing or impeding fish from passing in streams is unlawful under Fish and Game Code section 5901.

Why the Impact Would Occur: Projects designed under the Order criteria in *Limitations on Work in Streams and Wet Areas* may result in partial or full barriers to fish passage due to depth, velocity, tailwater configuration, upstream or

downstream grade control, and fish exhaustion. Additional criteria needs to be met with the appropriate streambed morphology for the stream grade and project reach relative to the greater stream reach.

Recommendation: To reduce the adverse impacts to special status salmonids to *Less than Significant with Mitigation,* CDFW recommends that the Order Attachment A *Limitation on Work in Stream and Wet Areas* be revised to include that projects occurring in streams that potentially, or historically, support fin-fish (Class I Watercourse) shall demonstrate that the stream crossing or stream reconfiguration will allow the passage of all life stages of fish using criteria and methods consistent with the CDFW *California Salmonid Stream Habitat Restoration Handbook: Part XII – Fish Passage Design and Implementation.*

Comment #19

Section: *Limitations on Work in Streams and Wet Areas* – 4th bullet point, (page 6)

Issue: The measure uses an undefined term (Class I watercourse) to classify a stream for potential mitigation measures. The undefined term(s) in the Order's Attachment may result in improperly applied or omitted mitigation to reduce adverse impacts to *Less Than Significant with Mitigation* under IS/MND Environmental Checklist IV Biological Resources Item (a) and (d).

Specific Impact: The undefined term may lead to ambiguity and result in unmitigated adverse impacts to fish and wildlife.

Why the Impact Would Occur: Uncertainty of the term Class I watercourse may result in significant unmitigated impacts to fish and wildlife.

Recommendation: To reduce the potential for adverse significant impacts to special status species, CDFW recommends the Order's Attachment A include a glossary for undefined terminology and acronyms used in the Order and its attachments.

Comment #20

Section: *Limitation on Work in Stream and Wet Areas* – 5th bullet point, (page 6)

Issue: The measure requires that the project reach be assessed or surveyed for the presence of redds, fish, amphibians, and reptiles, but does not include mitigation to avoid impacts to aquatic resources. The measure does not support the *Less Than Significant with Mitigation* determination per IS/MND Environmental Checklist IV Biological Resources Item (a).

Specific Impact: Without any measures that would avoid, reduce, or mitigate impacts to aquatic resources detected during the assessment or survey, no mitigation is in place. If the assessment or survey detects special status species or species protected under the California Endangered Species Act (CESA), there are no measures to avoid, reduce, or mitigate impacts (such as unlawful take under Fish & G. Code, §2080 et seq.).

Why the Impact Would Occur: There is the potential for unmitigated impacts to occur to special status species, including to species protected under CESA.

Recommendation: To reduce the potential adverse significant impacts to special status species to *Less Than Significant* with Mitigation, CDFW recommends replacing the Order's Attachment A, *Limitation on Work in Streams and Wet Areas* 5th bullet with:

- Prior to beginning work, projects shall include appropriate mitigation for special status species (such as California Species of Special Concern, Fish and Game Code Fully Protected Species, CESA candidate and listed threatened and endangered species, California Native Plant Society Rare Plant ranked botanical species, and California sensitive natural communities, and federally listed threatened and endangered species) that reduce potential adverse impacts to less than significant. These mitigations shall be based on a pre-project biological assessments or surveys by a qualified biologist that is informed by:
    - A 9-quad occurrence search of the California Natural Diversity Database (CNDDB);
    - Review of habitat types for the project area, the surrounding affected area, and other potentially impacted areas; and,
    - The appropriate protocol surveys, as warranted, performed by a qualified biologist. CDFW endorsed survey protocols may be found at https://wildlife.ca.gov/Conservation/Survey-Protocols#377281280-plants

Additionally:

- Prior to any work in any stream or watercourse, with or without water present, when work is to occur the project shall obtain an LSA Agreement signed by CDFW, or signed letter from CDFW stating that the activity does not require an LSA Agreement.
- Mitigation for potential impacts to fish, amphibians, and reptiles shall be informed by appropriately timed pre-project surveys performed by a qualified biologist for any project within a Class I watercourse or a Class II watercourse.
- Pre-project surveys and proposed mitigations shall be included in the Notification to CDFW through the Environmental Permit Information Management System (EPIMS).
- Work in any stream, lake, or wetland (including hydrologically connected wet areas) shall adhere to mitigations measures and conditions under the applicable LSA Agreement.
- If species listed under CESA are (or may be) impacted by the project, a permit for the incidental take of threatened or endangered species may be needed. Contact the regional CDFW office for additional assistance.

Comment #21

Section: *Temporary Stream Diversion and Dewatering: All Live Streams,* (page 6)

Issue: The temporary stream diversion and dewatering measures omit protections for aquatic species that may result in adverse significant impacts to sensitive species. The *Temporary Stream Diversion and Dewatering* measures do not support the *Less Than Significant with Mitigation* determination per IS/MND Environmental Checklist IV Biological Resources Item (a).

Specific Impact: Without addressing the potential impacts to aquatic resources present within and downstream of the dewatered reach, dewatering the stream may result in unmitigated impacts to fish and wildlife.

Why the Impact Would Occur: Reaches or sections of the stream that support fish and other aquatic life that are dewatered may negatively impact aquatic resources by degrading water quality, diminishing flow volumes, or altering flow velocities.

Recommendation: To reduce adverse significant impacts to *Less Than Significant with Mitigation*, CDFW recommends revising the *Temporary Stream Diversion and Dewatering: All Live Streams* to include:

- Diversion Plan. If flowing water is present or reasonably anticipated, the project shall include a detailed water *diversion/dewatering* plan. Dewatering structures may include the use of sandbags, Port-a-dams, water bladder dams, K-rails, or driven sheet metal coffer dams.
- Maintain Aquatic Life. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, the project shall allow sufficient water at all times to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937.
- Stranded Aquatic Life. Daily checks for stranded aquatic life as the water level in the dewatering area drops. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets and by hand. Captured aquatic life shall be released immediately in the closest body of water adjacent to the work site. This condition would not allow for the take or disturbance of any State or federally listed species, or State listed species of special concern without the appropriate incidental take permit.
- Fish Passage. Fish passage facilities shall be incorporated into any temporary barrier that may obstruct fish passage. Contact the regional CDFW office for additional guidance prior to installing any temporary barrier to fish passage.
- Flow Velocities. All diversion channels shall be designed to maintain velocities at levels acceptable to fish species.
- Clean Obstruction Only. Any temporary dam or other artificial obstruction constructed to divert streamflow shall only be built from materials which will cause little or no siltation*, such as clean gravels*.
- Non-Erodible Materials. Only clean non-erodible materials shall be used in the construction of any water diversion device. All materials used for diversion of water shall be removed from the stream at the conclusion of the water diversion, or end of the work period (whichever comes first).
- Extra Sandbags. Extra sandbags shall be readily available to provide additional freeboard for the diversion in the event it becomes evident flows may increase due to rainy conditions. The sandbag diversion may be removed completely only if the stream bank is stable and no undue erosion will occur.
- Maintain Water Quality. Flow shall be diverted in a manner that prevents turbidity, siltation, or pollution and provides flows to downstream reaches. Flows to downstream reaches shall be provided during all times that the natural flow would have supported aquatic life. Flows shall be of sufficient quality and quantity, and of appropriate temperature to support fish and other aquatic life both above and below the diversion. Normal flow shall be restored to the affected stream immediately upon completion of work at that location, or at the end of the work period (whichever comes first).

Comment #22

Section: *Protection of Sensitive Species* – first paragraph, (page 7)

Issue: The measure refers project proponents to federal, state, and local agencies for the location of potentially protected species, while known occurrences of special status species within the counties included in the Order are available through the CDFW California Natural Diversity Database (CNDDB) and known area occurrences may be reviewed by using the CNDDB QuickView 9-quad. The measure provided does not support the *Less Than Significant with Mitigation* determination per IS/MND Environmental Checklist IV Biological Resources Item (a).

Specific Impact: The measure's inaccurate premise that federal, state, and local agencies are aware of the locations of special status species is likely to result in substantial adverse impacts to special status species where adequate surveys have not occurred, or when information from surveys has not been submitted to CDFW for inclusion in the CNDDB.

Why the Impact Would Occur: Without an adequate biological assessment, and appropriate surveys of potential suitable habitats within the project area and those areas that may be impacted by the project, project impacts to special status fish, wildlife, and plants, as well as sensitive natural communities, may not be accurately disclosed. Without measures that avoid, reduce, or mitigate project impacts to special status species and sensitive natural communities, the Order may result in substantial adverse impacts, including unlawful take under Fish and Game Code section 2080 et seq. (CESA).

Recommendation: To reduce potential adverse impacts to special status species, CDFW recommends replacing the Order Attachment A, *Protection of Sensitive Species* 1st paragraph with:

- Prior to beginning work, the project shall include appropriate mitigation for special status species (such as California Species of Special Concern, Fish and Game Code Fully Protected Species, CESA candidate and listed threatened and endangered species, California Native Plant Society Rare Plant ranked botanical species, and California sensitive natural communities, and federally listed threatened and endangered species) that reduce potential adverse impacts to less than significant. These mitigations shall be based on a pre-project biological assessment by a qualified biologist that is informed by:
    - A 9-quad occurrence search of the California Natural Diversity Database (CNDDB),
    - Review of habitat types for the project area, the surrounding affected area, and other potentially impacted areas (including forested habitats that may support Northern spotted Owl, other nesting raptors, Marbled Murrelets, and wading bird rookeries); and,
    - The appropriate protocol surveys, as warranted, performed by a qualified biologist. CDFW endorsed survey protocols may be found at https://wildlife.ca.gov/Conservation/Survey-Protocols#377281280-plants

  Mitigations may require revegetation plans and habitat restoration plans in addition to monitoring plans for impacted species and habitats. If the project may result in state or federal take the appropriate incidental take permit through CDFW, US Fish and Wildlife Service, or NOAA may be warranted.

Comment #23

Section: *Protection of Sensitive Species* – 4th paragraph, (page 7)

Issue: The measure is insufficient for preventing the spread of invasive species and includes a clause that may result in unmitigated spread of invasive species. Limiting the measure to equipment that **may** have come in contact with invasive species does not support the *Less Than Significant with Mitigation* determination per IS/MND Environmental Checklist IV Biological Resources Item (a).

Specific Impact: The clause "…that may have come in contact with extremely invasive animals or plant or the seeds of these plants" incorrectly presumes how invasive species may spread and could lead to the unintentional dispersal of harmful invasive species, such as chytrid fungus that is a threat to amphibian populations where it has been introduced.

Why the Impact Would Occur: The presence of invasive species is not always readily apparent; sites that are presumed to be free of invasive species may actually have several. Using assumptions to justify when equipment should be sterilized rather than sterilizing between every site increases the risk of spreading invasive species. The spread of invasive species/pathogens to a new location may result in significant biological impacts.

Recommendation: To reduce potential significant adverse impacts to special status fish, wildlife, and plants to *Less Than Significant with Mitigation*, CDFW recommends replacing the *Protection of Sensitive Species* 4th paragraph with:

- To prevent the spread of invasive organisms that are harmful to plants and animals, all equipment, including but not limited to excavators, graders, barges, etc., shall be decontaminated according to the "California Department of Fish and Wildlife Aquatic Invasive Species Decontamination Protocol". The treatment listed under the "Recommendation" column shall be preferentially used, when applicable. A combination of treatments which eliminates all species listed in in the decontamination protocol's "Appendix A" shall be used (treatments shall be performed sequentially, and chemicals shall not be mixed). The BMPs in the decontamination protocol and BMPs which limit the spread of invasive terrestrial plants shall be incorporated whenever feasible.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the MND to assist NC RWQCB in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Lucy Haworth, Environmental Scientist, at CEQA@wildlife.ca.gov.

Sincerely,

DocuSigned by:
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