# Permitting Large Wood Augmentation Projects in the Evolutionarily Significant Unit of Central California Coast Coho Salmon: A Guidance Document

*Prepared by the*

*Wood for Salmon Working Group*

*December 2011*

**Acknowledgements**

This document was created collaboratively by the Wood for Salmon Working Group (WFSWG) to serve as a guide to the permitting process for salmon habitat restoration projects involving placement of large woody material (LWM) in the geographic area covered by the National Marine Fisheries Service's Evolutionarily Significant Unit (ESU) of Central California Coast (CCC) coho salmon. The Wood for Salmon Working Group is an informal group of California state, county, and federal agency staff, representatives from environmental non-profits, and private landowners and consultants who came together to develop a clear understanding of the permitting process for salmon habitat restoration projects in the CCC ESU involving wood placement, and to identify potential mechanisms to simplify the process and incentivize implementation of more projects. This document represents the work of many individuals and organizations. Special thanks are due to Jim Robins from *Alnus* Ecological for the use of *Appendix B. Regulatory Authorities, Permit "Triggers", and Permitting Processes* from the *Integrated Watershed Restoration Program for Santa Cruz County Design & Permitting Guidelines Manual,* which served as the basis for much of Sections II and III of this document, and to Jennifer Carah from The Nature Conservancy who drafted much of the rest of document. Thanks also to the members of the WFSWG who contributed to this document:

- Bill Snyder (California Department of Forestry and Fire Protection)
- Dominic MacCormack (United States Army Corps of Engineers)
- Erik Schmidt (Sustainable Conservation)
- Jason Pelletier (The Nature Conservancy)
- Jonathan Ambrose (National Marine Fisheries Service)
- Jonathan Warmerdam (North Coast Regional Water Quality Control Board)
- Patty Madigan (Mendocino County Resource Conservation District)
- Pete Cafferata (California Department of Forestry and Fire Protection)
- Richard Macedo (California Department of Fish and Game)
- Stephen Smith (Natural Resources Conservation Service)
- Tom Spittler (California Geological Survey)

**Disclamer**

The following document is for background information only, and provides an overview of permits that may be needed to complete a large wood augmentation project in the Evolutionarily Significant Unit of Central California Coast coho salmon. The actual permits required for a particular project will be determined by regulatory agency staff on a case by case basis. Please consult your local representatives of the United States Army Corps of Engineers, California Department of Fish and Game, Regional Water Quality Control Board, National Marine Fisheries Service, United States Fish and Wildlife Service, and County Planning Department to determine the permits that may be needed in any individual case.

**Abbreviations**

APE – Area of Potential Effect

BA – Biological Assessment

BO - Biological Opinion

CAL FIRE – California Department of Forestry and Fire Protection

Cat Ex – Categorical Exemption

CCC – Central California Coast

CDFG – California Department of Fish and Game

CEQA – California Environmental Quality Act

CESA – California Endangered Species Act

CWA – Clean Water Act

CZDP – Coastal Zone Development Permit

EIR – Environmental Impact Report

ESA – Endangered Species Act

ESU – Evolutionarily Significant Unit

FEMA – Federal Emergency Management Agency

FRGP – Fisheries Restoration Grant Program

HCP – Habitat Conservation Plan

IS – Initial Study

LCP – Local Coastal Plan

LSAA – Lake or Streambed Alteration Agreement

LWM – Large Woody Material

MOA – Memorandum of Agreement

Neg Dec – Negative Declaration

NMFS – National Marine Fisheries Service

NOAA – National Oceanic and Atmospheric Administration

NRCS – Natural Resources Conservation Service

NWP – Nationwide Permit

PBO – Programmatic Biological Opinion

PCP – Permit Coordination Program

PIR - Partners in Restoration

RCD – Resource Conservation District

RGP – Regional General Permit

RWQCB – Regional Water Quality Control Board

SHPO – State Historic Preservation Officer

SONCC – Southern Oregon/Northern California Coast

SWRCB – State Water Resources Control Board

The Corps – Unites Stated Army Corps of Engineers

THP – Timber Harvesting Plan

USFWS – United States Fish and Wildlife Service

WFSWG – Wood for Salmon Working Group

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## A. Coho crisis

The current range of coho salmon (*Oncorhynchus kisutch*) in North America ranges from Point Hope, Alaska south along the coast to Soquel Creek in Santa Cruz, California (NMFS 2010). The National Marine Fisheries Service (NMFS) has determined seven evolutionarily significant populations of coho salmon, and the two southernmost populations lie within California. The Southern Oregon/Northern California Coast (SONCC) Evolutionarily Significant Unit (ESU) of coho salmon extends from Elk River near Cape Blanco, Oregon, south through and including the Mattole River near Punta Gorda, California. The Central California Coast (CCC) ESU of coho salmon extends from Punta Gorda south to Soquel Creek in Santa Cruz County, California (NMFS 2010). SONCC ESU coho were listed as threatened under the United States Endangered Species Act on May 6, 1997, and listed as threatened under the California Endangered Species Act also in 1997. CCC ESU coho were listed as endangered under the United States Endangered Species Act on June 28, 2005, and listed as endangered under the California Endangered Species Act in 2002.

Coho salmon in California have continued to decline despite their listing under the United States and California Endangered Species Acts, and experts estimate that they will be extirpated from the state in the next 25-50 years absent serious intervention (Moyle et al. 2008; NMFS 2010). Declines in California are estimated to be 95% or more from 50-60 years ago (Moyle et al. 2008). This critical situation necessitates prompt and focused action to protect, and increase survival of the remaining populations in California (NMFS 2010). In this document, we will focus on the most imperiled population in California, the coho salmon of the CCC ESU.

## B. Threats to coho salmon and priority recovery actions

A host of threats have reduced both population size and distribution of coho salmon across the CCC ESU, and many of the threats are widespread and persistent. Threats include artificial migration barriers (including dams), streambed alteration, disease, poor water quality, water diversions, agricultural, urbanization and forestry impacts, and climatic variation among other things (CDFG 2004, NMFS 2010). The California Department of Fish and Game's (CDFG) *Recovery Strategy for California Coho Salmon* and NMFS's *Draft Recovery Plan for the Evolutionarily Significant Unit of California Central Coast Coho Salmon* identify priority recovery actions to address these threats and recover populations (CDFG 2004, NMFS 2010). Priority recovery actions in the CCC ESU include: ensuring sufficient water flow and water temperatures for all life stages, reducing fine sediment inputs into streams, improving fish passage, increasing outreach and education, improving enforcement of laws and regulations that protect coho and their habitat, reducing by-catch of coho in other fisheries, engaging in land use planning that protects intact watersheds, implementing a state-wide coho population monitoring

program, abating forestland conversion and promoting sustainable forestry practices including protecting riparian forests, and prioritizing restoration funding on recovery actions that have high potential to improve habitat and increase freshwater survival, such as installation of large woody material and creation of over-wintering habitats (CDFG 2004, NMFS 2010). Priority recovery actions vary by watershed as limiting factors for coho vary by watershed.

### C. Large wood augmentation

Adding large woody material (LWM) to streams is a priority recovery action in many watersheds of the CCC ESU due to the important role it plays in forming habitat for coho salmon, and the current lack of LWM in many watersheds (CDFG 2004, NMFS 2010). The importance of LWM to salmon has been widely recognized (Bisson et al. 1987, Sedell et al. 1988, Naiman et al. 2002, CDFG 2004, NMFS 2010), and many studies have shown a positive relationship between wood density and salmon abundance (e.g., Sedell et al. 1988, Cedarholm et al. 1997, Bilby and Bisson 1998, Solazzi et al. 2000, Roni and Quinn 2001, Whiteway et al. 2010). Trees that fall into a stream from the riparian forest or a landslide influence channel shape by scouring pools and sorting and storing stream sediments (Bisson et al. 1987), forming clean gravel beds for spawning (House and Boehne 1986), and off-channel habitats that provide refuge from fast water at high flows (Bisson et al. 1987, Fausch and Northcote 1992, Solazzi et al. 2000). Wood-formed pools are the preferred habitat of juvenile coho salmon (Bisson et al. 1982), providing slow moving water where food can be captured with a minimal expenditure of energy (Fausch 1984). Woody material also traps nutrients, increasing food availability (Bilby and Bisson 1998), and provides cover from predators for both adult and young fish (Naiman et al. 2002). In the estuary environment, wood also provides cover from predators for both adults and juveniles, traps sediments and increases food availability (Gonor et al. 1988).

In many streams of the CCC ESU, wood densities are quite low. For example, over 80% of NMFS CCC ESU priority focus watersheds have poor wood stocking (NMFS 2010). Loss, modification, or simplification of riparian forests has created a lack of natural LWM recruitment, as many of the riparian forests in the CCC ESU have been harvested in the last 60 years and do not have older trees that are falling into creeks as they age and die (Moyle et al. 2008, NMFS 2010). In addition, LWM removal activities have also reduced LWM densities (NMFS 2010).

The most effective salmon habitat restoration projects have a strong understanding of biological context and address limiting factors (Beechie and Bolton 1999). They also restore physical and ecological processes, not just modify habitat (Beechie and Bolton 1999, Kail et al. 2007, Roni et al. 2008). Therefore, a first priority to restore LWM densities in streams where lack of wood is a limiting factor for coho salmon, is to protect and restore natural wood recruitment processes by protecting and restoring the primary future sources of natural LWM, the riparian forests (Boyer et al. 2003, Nagayama and

Nakamura 2010). However, generating adequate volumes of large wood naturally following historical wood removal and riparian forest harvest is a slow process in second-growth coastal stands, typically requiring 75 to 150 years to reach acceptable levels (Sedell et al. 1988, Wooster and Hilton 2004). Accordingly, a second priority to restore LWM densities in streams where lack of wood is a limiting factor is to add wood as an interim measure, until riparian forests attain adequate size and stocking to achieve sufficient natural wood recruitment rates (Nagayama and Nakamura 2010). This will be necessary to maintain and create adequate summer and winter rearing habitat for coho salmon in the CCC ESU (Moyle et al. 2008, NMFS 2010).

## D. What permits or authorizations are needed to do large wood augmentation projects?

Implementing LWM augmentation projects in the Evolutionarily Significant Unit of Central California Coast coho salmon generally requires federal and state permits or authorizations, and often local permits as well. Permits or authorizations are needed to alter the bed, bank, channel, or flow of any river, lake, or stream, to generate fill in a streambed, to fell riparian trees, and also to provide incidental take coverage for listed species that are or may be present, among other things. The specific permits or authorizations needed will depend on many factors including the location of the project, whether listed species are present, the source of project funding, the size of the project, the timing of implementation, and other factors. Permits or authorizations often required include: authorization under Sections 404 and 401 of the Clean Water Act, compliance with Section 106 of the National Historic Preservation Act, compliance with the United States and California Endangered Species Acts, authorization under Section 1600 et seq. of the California Department of Fish and Game Code, and compliance with the California Environmental Quality Act. Local county or municipal permits and coastal zone development permits may also be needed.

## E. Ways to simplify permitting large wood augmentation projects

The process for permitting a large wood augmentation project in the coho salmon CCC ESU can be extensive, but there are several possible ways to greatly simplify the process of acquiring permits or authorizations.

- **Apply for California Department of Fish and Game Fisheries Restoration Grant Program (FRGP) funding.** If a project is funded through the CDFG FRGP, most permits will usually be handled by CDFG themselves. CDFG have permits with the other relevant regulatory agencies and usually provide coverage for FRGP funded projects under those permits, pursuant to certain conditions. If funded under FRGP, a project proponent will still need to notify CDFG of Lake or Streambed Alteration and enter into a Lake or Streambed Alteration Agreement (LSAA), but that is often it, unless the project occurs within the Coastal Development Zone. In that case the project proponent will have to notify CDFG

and acquire an LSAA, as well as consult with their local county planning department to determine whether or not a Coastal Zone Development Permit is required. If required, it will be the project proponent's responsibility to acquire the Coastal Zone Development Permit, though the project proponent may seek funding through FRGP for the cost of acquiring this permit. See Section III.A, III.D, and Section V.A below for more information.

- **Work through a Partners in Restoration (PIR) Permit Coordination Program.** Currently there are three PIR programs in the coho salmon CCC ESU - coastal Marin County, Santa Cruz County, and the Navarro River watershed. If a project secures coverage under a PIR program, the local Resource Conservation District (RCD) can provide federal, State and local programmatic permits, acquire other necessary permits, and work with the project proponent to acquire final reviews and authorizations for the project. See Section V.B below.

- **If a federally listed species is present, acquire a "federal nexus", so that a Section 7 Endangered Species Act (ESA) inter-agency consultation may proceed rather than a Section 10 ESA consultation.** A "federal nexus" is established if an activity is authorized, funded, or carried out by a federal agency and this allows a simpler and faster type of inter-agency consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Unites States Army Corps of Engineers (the Corps) (e.g., 404 authorization). In short, if federally listed species are present, it behooves the project proponent to either acquire funding from the CDFG FRGP or a federal agency (e.g., Natural Resource Conservation Service), work with a PIR program, or acquire a Corps 404 authorization to acquire a "federal nexus." In the absence of a "federal nexus", a Section 10 ESA consultation will be necessary. In that case, the project proponent must meet certain requirements to comply with ESA, including the requirement to prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs usually takes many years. See Section II.C.1 and Section II.C.2 below.

- **Comply with the Terms and Conditions of the National Oceanic and Atmospheric Administration/National Marine Fisheries Service's (NOAA/NMFS) Biological Opinion (BO) (151422SWR2006SR00190:JMA) for fisheries restoration projects in the regulatory jurisdiction of the NMFS Santa Rosa field office.**[1] If a project complies with the Terms and Conditions

[1] The NMFS Santa Rosa field office area of responsibility is from Mendocino County in the north to San Luis Obispo County in the south, including San Francisco Bay and inland to the Carquinez Straight Bridge. The Division is organized into three geographic teams:

- **North Coast Team** - Mendocino, Sonoma, Marin Counties.
- **San Francisco Bay Team** - S.F. Bay and interior drainages
- **South Coast Team** - San Mateo, Santa Cruz, Monterey, and San Luis Obispo Counties

and Protection and Minimization Measures of the NOAA/NMFS BO, the project will likely qualify for greatly expedited Section 7 ESA consultation, and incidental take coverage for federally listed anadromous salmonids. If a project is determined consistent with the NOAA/NMFS BO, then it will also qualify for expedited incidental take coverage for listed salmonids at the state level as well. See Section II.C.1 and Section III.C.1 below.

- **Keep area of project disturbance less than 5 acres and 500 lineal feet.** If the total project disturbance area[2] is less than 5 acres, the project may qualify for California Environmental Quality Act Categorical Exemption (Cat Ex) 15333. If a project qualifies for Cat Ex 15333, then the project no longer needs a CEQA Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report. Qualifying for Cat Ex 15333 also makes a project eligible for expedited Regional Water Quality Control Board 401 authorization. To be eligible for the expedited Water Board 401 authorization, the area of disturbance within the jurisdictional waters of the State needs to be less than 5 acres, and less than 500 lineal feet.[3] If that is the case, the project proponent can file a *General 401 Water Quality Certification Order for Small Habitat Restoration Projects*, rather than filing for an individual 401 certification (a lengthy process). See Sections II.B and III.B below.

- **If non-marine federally listed species are or may be present, operate within timing windows, or spatial buffers such that the risk of take for non-marine listed species is minimal.** If a project can operate within approved United States Fish and Wildlife Service (USFWS) timing windows, and/or spatial buffers, it may be possible to make a case for 'take avoidance' with USFWS through an informal Section 7 ESA inter-agency consultation – otherwise a full formal Section 7 or Section 10 inter-agency Endangered Species Act consultation will likely be necessary. See Section II.C.2 below.

- **Complete the project without heavy equipment entering the wetted channel (e.g., operate from the bank, or directly fall trees into the channel).** If a wood project can be completed without heavy equipment entering the wetted channel, and no dewatering, electrofishing, or movement of fish or other aquatic animals will be necessary, then operations and protection measures for listed and other species may be greatly simplified, and significant cost savings incurred. If dewatering or animal relocation is required, additional protection measures will be required including specific screening, pumping, and flow requirements, and a qualified biologist will likely be required to be on site to move animals and to observe activities during the whole construction period, among other things.

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[2] See Section III.B for more information on determining area of disturbance under CEQA.
[3] See Section II.B for more information on determining area of disturbance under 401 authorization.

## F. Decision support tools for permitting large wood augmentation projects

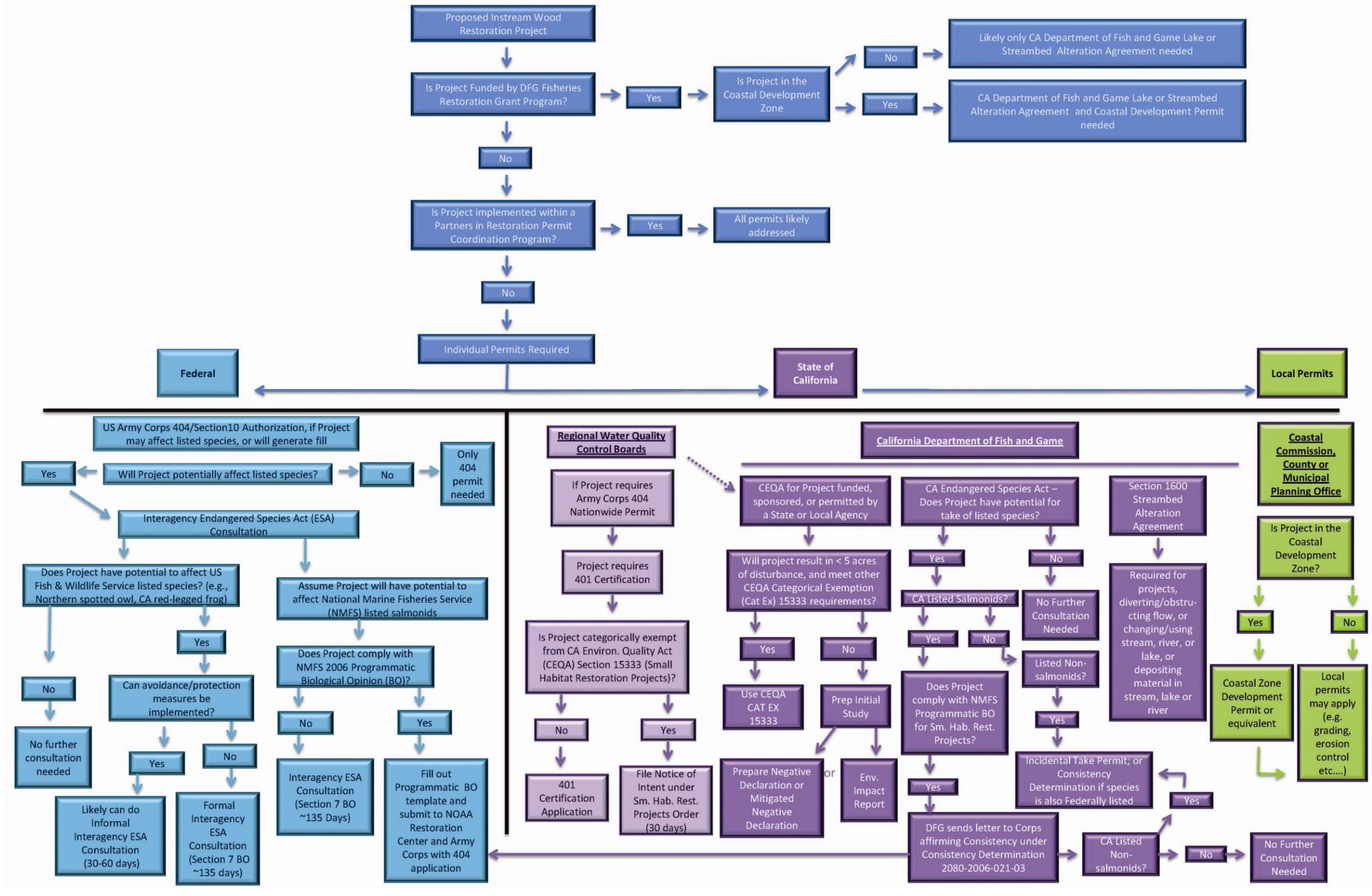
As mentioned previously, many permits and authorizations may be needed to complete large wood augmentation projects in the coho salmon CCC ESU. Two decision support tools are included in this section that we hope will help project proponents explore which permits or authorizations may be needed in a particular situation. The first is a flowchart that visually walks through permits or authorizations that may be necessary. The second is a dichotomous key.[4]

**Please note that the actual permits or authorizations required for a particular project will be determined by agency regulatory staff on a case by case basis. Please consult your local representatives of the United States Army Corps of Engineers, California Department of Fish and Game, Regional Water Quality Control Board, National Marine Fisheries Service, United States Fish and Wildlife Service, and County Planning Department to determine the permits that may be needed in any individual case.**

More detailed information on each permit or authorization is provided in Sections II – IV of this document.

[4] A dichotomous key is a written tool for the identifying a particular situation based on a series of choices between alternatives. It is written as a sequence of paired questions, the choice of which determines the next pair of questions until a name or identification is reached.

***Flowchart for permitting LWM restoration projects in the coho salmon CCC ESU***



The following dichotomous keys also serve as decision support tools to help interested parties understand what permits may be necessary in a particular situation.
Four keys – one general key, and one each for federal, state and local permits – are presented below. For best results, use all four keys, in order, starting with the general key first. Once the keys have been completed, more information on each relevant regulation and necessary authorizations or permits can be found in Sections II - IV of this document.

Each dichotomous key consists of a series of paired descriptions or questions, called couplets. Starting with the first pair of descriptions (1., 1'), read each thoroughly, and then decide which description/question is most appropriate for your situation (e.g., either 1. or 1'). At the end of each description will be a number, indicating the number of the next couplet to examine. Continue in this manner until you reach a conclusion. A conclusion has been reached if there is no number for the next couplet, but rather only conclusion text (e.g., "Permitting situation A"). Then look below the key for a description of that item.

For example, in using the "General key to permitting LWM restoration projects in the coho salmon CCC ESU" below, it might go something like this: starting at the first couplet, couplet 1, one asks, "Is the LWM project funded by the California Department of Fish and Game Fisheries Restoration Grant Program (FRGP) or being carried out in a Partners in Restoration (PIR) program (option 1.), or is the LWM project **not** funded by the CDFG FRGP and **not** being carried out in a PIR Program (option 1')?" If one decides that the project will either be funded by FRGP, or is going to be carried out within a PIR program (option 1.), then one moves to the next couplet indicated - in this case, couplet 2. At couplet 2 one asks, "Is the project funded by FRGP (option 2.), or is the project going to be completed within a PIR program (option 2')?" If one determines that the project will be funded by FRGP (option 2.), then one moves to the next couplet indicated, couplet 3. At couplet 3, one asks, "Will the project take place outside the Coastal Development Zone (option 3.), or will the project take place within the Coastal Development Zone (option 3')?" If one decides it will not take place within the Coastal Development Zone (option 3.), then the conclusion indicates the permitting situation encountered is "Permitting situation C". Then one can go to the individual description for "Permitting situation C" below the key to learn more about that particular situation.

***General key to permitting LWM restoration projects in the coho salmon CCC ESU***

**1.** LWM project is funded by the California Department of Fish and Game (CDFG) Fisheries Restoration Grant Program (FRGP), or is being carried out in a Partners in Restoration (PIR) Permit Coordination Program ……2

**1'** LWM project is **not** funded by the CDFG FRGP, and is **not** being carried out in a PIR Program ……....**Permitting situation A**

**2.** LWM project is funded by the CDFG FRGP……..3

**2'** LWM project is being carried out in a PIR Program.……**Permitting situation B**

**3.** LWM project is **not** in the Coastal Development Zone……**Permitting situation C**

**3'** LWM project is in the Coastal Development Zone……..**Permitting situation D**

**Permitting situation A:** Individual permits will be necessary. See the Federal Permit Key below to see what federal permits may be necessary, and the State Permit and Local Permit Keys below to see what state or local permits may be necessary.

**Permitting situation B:** In the CCC ESU, only LWM projects in coastal Marin County, Santa Cruz County, or the Navarro River watershed are currently eligible for coverage under a PIR Program. If you have coverage under a PIR program, your local Resource Conservation District (RCD) will work with you to acquire all necessary permits. See http://www.suscon.org/pir/details.php for general information about PIR programs, or http://marinrcd.org/wpress/?page_id=172 in Marin County, and http://www.rcdsantacruz.org/pages/programs/permitting-assistance.php in Santa Cruz County. For more information on the PIR in the Navarro watershed see http://www.suscon.org/pir/watersheds/navarro.php or call the Mendocino County RCD at 707-462-3664. Section V.B in the main body of this document also has more information on PIR programs.

**Permitting situation C:** CDFG has permits from most other regulatory agencies (except the California Coastal Commission) for FRGP funded projects, and will likely handle permitting for the project pursuant to certain conditions. The project proponent will still need to submit a notification of Lake or Streambed Alteration, and enter into a Lake or Streambed Alteration Agreement (see Section III.A). See http://www.dfg.ca.gov/fish/Administration/Grants/FRGP/, or Section V.A in the main body of this document below for more information on the FRGP.

**Permitting situation D:** You will need to notify CDFG of Lake or Streambed Alteration, and receive a Lake or Streambed Alteration Agreement (see Section III.A in the main body of this document below). CDFG has permits from most other regulatory agencies

for FRGP funded projects, but does not have permits with the California Coastal Commission (see Section V.A in the main body of this document for more on the FRGP). You will need to consult with your local district Coastal Commission office (http://www.coastal.ca.gov/address.html), or county or municipal planning office, to discuss whether or not a Coastal Zone Development Permit is necessary (see Section III.D in the main body of this document below).

***Key to permits provided by federal entities for LWM projects in the coho salmon CCC ESU***

**1.** Is there potential for the LWM project to generate fill that may enter a water body under federal jurisdiction,[5] **and/or** does the LWM project have the potential to affect a federally listed species (coho salmon, Chinook salmon, steelhead trout, northern spotted owl, marbled murrelet, tide-water goby, California red-legged frog, etc.)? If yes to either……2

**1'** Is there **no** potential for the LWM project to generate fill that may enter a water body under federal jurisdiction, **and** the project has **no** potential to affect a federally listed species? If yes to both…….....**Permitting situation E**

**2.** Does the LWM project have the potential to affect a federally listed species, and potential to generate fill that may enter a water body under federal jurisdiction? If yes……3

**2'** The project does not have the potential to affect a federally listed species, but it does have the potential to generate fill that may enter a water body under federal jurisdiction……..…**Permitting situation F**

**3.** Does the LWM project have the potential to affect **both** marine (anadromous salmonids, e.g., coho or Chinook salmon or steelhead trout), **and** non-marine (e.g., northern spotted owl, California red-legged frog) federally listed species? If yes.....4

**3'** Does the LWM project have the potential to affect **only** marine (anadromous salmonids, e.g., coho or Chinook salmon or steelhead trout), **and not** non-marine (e.g., northern spotted owl, California red-legged frog) federally listed species?[6] If yes.....5

**4.** Is the LWM project located **within** the regulatory jurisdiction of the NMFS Santa Rosa field office?[7] If yes……..……..6

**4'** Is the LWM project located **outside** the regulatory jurisdiction of the NMFS Santa Rosa field office? If yes……..7

**5.** Is the LWM project located **within** the regulatory jurisdiction of the NMFS Santa Rosa field office?[7] If yes……..……...**Permitting situation G**

**5'** Is the LWM project located **outside** the regulatory jurisdiction of the NMFS Santa Rosa field office? If yes……..…….....…**Permitting situation H**

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[5] Water bodies under federal jurisdiction ("U.S. waters") include permanent, standing or continuously flowing bodies of water such as streams, oceans, rivers, and lakes. See http://www.spn.usace.army.mil/regulatory/jd.html#jurisdictionaldetermination for more information.

[6] Note, there is not an option in the key for the potential to affect only non-marine species, where marine species are not present, because we assume LWM projects will primarily be undertaken in streams where the goal is to improve habitat for anadromous salmonids.

[7] The NMFS Santa Rosa field office area of responsibility is from Mendocino County in the north to San Luis Obispo County in the south, including San Francisco Bay and inland to the Carquinez Straight Bridge. The Division is organized into three geographic teams:

- **North Coast Team** - Mendocino, Sonoma, Marin Counties.
- **San Francisco Bay Team** - S.F. Bay and interior drainages
- **South Coast Team** - San Mateo, Santa Cruz, Monterey, and San Luis Obispo Counties

**6.** Can operational timing windows, or buffers be implemented such that the risk of take for non-marine listed species is minimal? If yes.....**Permitting situation I**

**6'** Operational timing windows, or buffers, cannot be implemented such that the risk of take for non-marine listed species is minimal……..…...**Permitting situation J**

**7.** Can operational timing windows, or buffers be implemented such that the risk of take for non-marine listed species is minimal? If yes.....**Permitting situation K**

**7'** Operational timing windows, or buffers, cannot be implemented such that the risk of take for non-marine listed species is minimal……..…**Permitting situation L**

**Permitting situation E:** You may not need federal permits. However, the probability that there is both no potential for a LWM project to generate fill that may enter a water body, and that a project has no potential to affect a federally listed species is extremely low - as LWM is usually considered to be a fill material, and projects are most often undertaken to benefit a listed salmonid and their habitat.

**Permitting situation F:** You will need to apply to the Corps to authorize discharge of dredged or fill material into U.S. waters, or provide notification to the Corps of intent to operate under an existing Corps Nationwide Permit (both under Section 404 of the Clean Water Act). See Section II.A below, or http://www.spn.usace.army.mil/regulatory/apply.html and http://www.spn.usace.army.mil/regulatory/nwp.html for more information. Note: You will need to provide information in your application or notification about the presence or absence of historic resources so that the Corps may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information). Note: It is unlikely that the project has no potential to affect a federally listed species - as LWM projects are most often undertaken to benefit a listed salmonid and their habitat.

**Permitting situation G:** You will need to apply to the Corps for an individual Section 404 authorization, or provide notification to the Corps of intent to operate under an existing Corps Nationwide Permit (both under Section 404 of the Clean Water Act), to authorize discharge of dredged or fill material into U.S. waters. Note: unless the project has some other "federal nexus",[8] in order to initiate the preferred Section 7 inter-agency Endangered Species Act (ESA) consultation to determine no-take, or authorize incidental take of federally listed species, a 404 authorization from the Corps (either an individual authorization or a notification under an existing Nationwide Permit), will be necessary to acquire the "federal nexus".[9] Note: you will need to clearly indicate that listed species or their critical habitat are or may be present on your

[8] A "federal nexus" is established if an activity is authorized, funded, or carried out by a federal agency and this allows a simpler and faster type of inter-agency consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Corps (e.g., 404 authorization).

[9] If the absence of a "federal nexus", where federally listed species or their critical habitat are present, a Section 10 ESA consultation will be necessary. In that case, the project proponent must prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs usually takes many years.

application or notification,[10] so that the Corps will initiate either informal or formal Section 7 ESA inter-agency consultations to determine no-take, or authorize incidental take. Since the project is within the regulatory jurisdiction of the NMFS Santa Rosa field office, the Corps will likely perform an expedited Section 7 ESA formal consultation on take of listed anadromous salmonids with NOAA/NMFS under the terms of the NOAA/NMFS Biological Opinion (151422SWR2006SR00190:JMA) for fisheries restoration projects, to quickly provide you with incidental take coverage for listed salmonids (if your project conforms to the specifications of the Biological Opinion). See Sections II.A below, or http://www.spn.usace.army.mil/regulatory/apply.html and http://www.spn.usace.army.mil/regulatory/nwp.html for more information on Corps 404 authorizations/notifications. See http://swr.nmfs.noaa.gov/rcbo.htm or Section II.C.1 for more information on anadromous salmonid inter-agency ESA consultations within the regulatory jurisdiction of the NMFS Santa Rosa field office. Note: You will need to provide information in your 404 application or notification about the presence or absence of historic resources so that the Corps may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation H:** You will need to apply to the Corps for an individual Section 404 authorization, or provide notification to the Corps of intent to operate under an existing Corps Nationwide Permit (both under Section 404 of the Clean Water Act), to authorize discharge of dredged or fill material into U.S. waters. Note: unless the project has some other "federal nexus",[11] in order to initiate the preferred Section 7 inter-agency Endangered Species Act (ESA) consultation to determine no-take, or authorize incidental take of federally listed species, a 404 authorization from the Corps (either an individual authorization or a notification under an existing Nationwide Permit), will be necessary to acquire the "federal nexus".[12] Note: you will need to clearly indicate that listed species or their critical habitat are or may be present on your application or notification,[13] so that the Corps will initiate either informal or formal Section 7 ESA inter-agency consultations to determine no-take, or authorize incidental take. Since the project is **not** within the regulatory jurisdiction of the NMFS Santa Rosa field office, the Corps will likely initiate a full formal ESA Section 7 consultation with NMFS for anadromous salmonids. Note: this can take up to 135 days, once a formal Biological Assessment is completed. See Sections II.A below, or http://www.spn.usace.army.mil/regulatory/apply.html and http://www.spn.usace.army.mil/regulatory/nwp.html for more information on Corps authorizations/notifications. See http://swr.nmfs.noaa.gov/rcbo.htm or Section II.C.1 for more information on anadromous salmonid inter-agency ESA consultations within the regulatory jurisdiction of the NMFS Santa Rosa field office. Note: You will need to provide information in

[10] In some cases, no notification to the Corps may be necessary to receive coverage under an existing Nationwide Permit, however, irrespective of whether notification is explicitly required, if there are *federally listed species or their designated critical habitat* that might be affected, you **must** notify the Corps prior to beginning work. No work shall begin until the Corps is notified and the requirements of the Endangered Species Act are satisfied.

[11] A "federal nexus" is established if an activity is authorized, funded, or carried out by a federal agency and this allows a simpler and faster type of inter-agency consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Corps (e.g., 404 authorization).

[12] If the absence of a "federal nexus", where federally listed species or their critical habitat are present, a Section 10 ESA consultation will be necessary. In that case, the project proponent must prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs usually takes many years.

[13] In some cases, no notification to the Corps may be necessary to receive coverage under an existing Nationwide Permit, however, irrespective of whether notification is explicitly required, if there are *federally listed species or their designated critical habitat* that might be affected, you **must** notify the Corps prior to beginning work. No work shall begin until the Corps is notified and the requirements of the Endangered Species Act are satisfied.

your 404 application or notification about the presence or absence of historic resources so that the Corps may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation I:** You will need to apply to the Corps for an individual Section 404 authorization, or provide notification to the Corps of intent to operate under an existing Corps Nationwide Permit (both under Section 404 of the Clean Water Act), to authorize discharge of dredged or fill material into U.S. waters. Note: unless the project has some other "federal nexus",[14] in order to initiate the preferred Section 7 inter-agency Endangered Species Act (ESA) consultation to determine no-take, or authorize incidental take of federally listed species, a 404 authorization from the Corps (either an individual authorization or a notification under an existing Nationwide Permit), will be necessary to acquire the "federal nexus".[15] Note: you will need to clearly indicate that listed species or their critical habitat are or may be present on your application or notification,[16] so that the Corps will initiate either informal or formal Section 7 ESA inter-agency consultations to determine no-take, or authorize incidental take. Since the project is within the regulatory jurisdiction of the NMFS Santa Rosa field office, the Corps will likely perform an expedited Section 7 ESA formal consultation on take of listed anadromous salmonids with NOAA/NMFS under the terms of the NOAA/NMFS Biological Opinion (151422SWR2006SR00190:JMA) for fisheries restoration projects, to quickly provide you with incidental take coverage for listed salmonids (if your project conforms to the specifications of the Biological Opinion). See Sections II.C.1 for more information on anadromous salmonid inter-agency ESA consultations within the regulatory jurisdiction of the NMFS Santa Rosa field office. If you can provide documentation that by implementing within operational timing windows, or spatial buffers, the risk of take for non-marine listed species is minimal, the Corps will likely informally consult with United States Fish and Wildlife Service (USFWS) to confirm that chance of take is minimal. See Sections II.A below, or http://www.spn.usace.army.mil/regulatory/apply.html and http://www.spn.usace.army.mil/regulatory/nwp.html for more information on Corps 404 authorizations/notifications. See Sections II.C.1 and Sections II.C.2 for more information on inter-agency ESA consultations, and http://swr.nmfs.noaa.gov/rcbo.htm for more information on the NOAA/NMFS BO. Note: You will need to provide information in your 404 application or notification about the presence or absence of historic resources so that the Corps may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation J:** You will need to apply to the Corps for an individual Section 404 authorization, or provide notification to the Corps of intent to operate under an existing Corps Nationwide Permit (both under Section 404 of the Clean Water Act), to authorize discharge of

[14] A "federal nexus" is established if an activity is authorized, funded, or carried out by a federal agency and this allows a simpler and faster type of inter-agency consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Corps (e.g., 404 authorization).

[15] If the absence of a "federal nexus", where federally listed species or their critical habitat are present, a Section 10 ESA consultation will be necessary. In that case, the project proponent must prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs usually takes many years.

[16] In some cases, no notification to the Corps may be necessary to receive coverage under an existing Nationwide Permit, however, irrespective of whether notification is explicitly required, if there are *federally listed species or their designated critical habitat* that might be affected, you **must** notify the Corps prior to beginning work. No work shall begin until the Corps is notified and the requirements of the Endangered Species Act are satisfied.

dredged or fill material into U.S. waters. Note: unless the project has some other "federal nexus",[17] in order to initiate the preferred Section 7 inter-agency Endangered Species Act (ESA) consultation to determine no-take, or authorize incidental take of federally listed species, a 404 authorization from the Corps (either an individual authorization or a notification under an existing Nationwide Permit), will be necessary to acquire the "federal nexus".[18] Note: you will need to clearly indicate that listed species or their critical habitat are or may be present on your application or notification,[19] so that the Corps will initiate either informal or formal Section 7 ESA inter-agency consultations to determine no-take, or authorize incidental take. Since the project is within the regulatory jurisdiction of the NMFS Santa Rosa field office, the Corps will likely perform an expedited Section 7 ESA formal consultation on take of listed anadromous salmonids with NOAA/NMFS under the terms of the NOAA/NMFS Biological Opinion (151422SWR2006SR00190:JMA) for fisheries restoration projects, to quickly provide you with incidental take coverage for listed salmonids (if your project conforms to the specifications of the Biological Opinion). See Sections II.C.1 for more information on anadromous salmonid inter-agency ESA consultations within the regulatory jurisdiction of the NMFS Santa Rosa field office. If you cannot provide documentation that by implementing within operational timing windows, or spatial buffers, the risk of take for non-marine listed species is minimal, the Corps will likely initiate a full formal ESA Section 7 consultation with United States Fish and Wildlife Service (USFWS). Note: this consultation can take up to 135 days, once a formal Biological Assessment is completed. See Sections II.A below, or http://www.spn.usace.army.mil/regulatory/apply.html and http://www.spn.usace.army.mil/regulatory/nwp.html for more information on Corps 404 authorizations/notifications. See Sections II.C.1 and Sections II.C.2 for more information on inter-agency ESA consultations, and http://swr.nmfs.noaa.gov/rcbo.htm for more information on the NOAA/NMFS BO. Note: You will need to provide information in your 404 application or notification about the presence or absence of historic resources so that the Corps may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation K:** You will need to apply to the Corps for an individual Section 404 authorization, or provide notification to the Corps of intent to operate under an existing Corps Nationwide Permit (both under Section 404 of the Clean Water Act), to authorize discharge of dredged or fill material into U.S. waters. Note: unless the project has some other "federal nexus",[20] in order to initiate the preferred Section 7 inter-agency Endangered Species Act (ESA) consultation to determine no-take, or authorize incidental take of federally listed species, a 404 authorization from the Corps (either an individual authorization or a notification under an existing

[17] A "federal nexus" is established if an activity is authorized, funded, or carried out by a federal agency and this allows a simpler and faster type of inter-agency consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Corps (e.g., 404 authorization).

[18] If the absence of a "federal nexus", where federally listed species or their critical habitat are present, a Section 10 ESA consultation will be necessary. In that case, the project proponent must prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs usually takes many years.

[19] In some cases, no notification to the Corps may be necessary to receive coverage under an existing Nationwide Permit, however, irrespective of whether notification is explicitly required, if there are *federally listed species or their designated critical habitat* that might be affected, you **must** notify the Corps prior to beginning work. No work shall begin until the Corps is notified and the requirements of the Endangered Species Act are satisfied.

[20] A "federal nexus" is established if an activity is authorized, funded, or carried out by a federal agency and this allows a simpler and faster type of inter-agency consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Corps (e.g., 404 authorization).

Nationwide Permit), will be necessary to acquire the "federal nexus".[21] Note: you will need to clearly indicate that listed species or their critical habitat are or may be present on your application or notification,[22] so that the Corps will initiate either informal or formal Section 7 ESA inter-agency consultations to determine no-take, or authorize incidental take. Since the project is **not** within the regulatory jurisdiction of the NMFS Santa Rosa field office, the Corps will likely initiate a full formal ESA Section 7 consultation with NMFS for anadromous salmonids. Note: this can take up to 135 days, once a formal Biological Assessment is completed. If you can provide documentation that by implementing within operational timing windows, or spatial buffers, the risk of take for non-marine listed species is minimal, the Corps will likely informally consult with United States Fish and Wildlife Service (USFWS) to confirm that chance of take is minimal. See Sections II.A below, or http://www.spn.usace.army.mil/regulatory/apply.html and http://www.spn.usace.army.mil/regulatory/nwp.html for more information on Corps 404 authorizations/notifications. See Sections II.C.1 and Sections II.C.2 for more information on inter-agency ESA consultations, and http://swr.nmfs.noaa.gov/rcbo.htm for more information on the NOAA/NMFS BO. Note: You will need to provide information in your 404 application or notification about the presence or absence of historic resources so that the Corps may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation L:** You will need to apply to the Corps for an individual Section 404 authorization, or provide notification to the Corps of intent to operate under an existing Corps Nationwide Permit (both under Section 404 of the Clean Water Act), to authorize discharge of dredged or fill material into U.S. waters. Note: unless the project has some other "federal nexus",[23] in order to initiate the preferred Section 7 inter-agency Endangered Species Act (ESA) consultation to determine no-take, or authorize incidental take of federally listed species, a 404 authorization from the Corps (either an individual authorization or a notification under an existing Nationwide Permit), will be necessary to acquire the "federal nexus".[24] Note: you will need to clearly indicate that listed species or their critical habitat are or may be present on your application or notification,[25] so that the Corps will initiate either informal or formal Section 7 ESA inter-agency consultations to determine no-take, or authorize incidental take. Since the project is **not** within the regulatory jurisdiction of the NMFS Santa Rosa field office, the Corps will likely initiate a full formal ESA Section 7 consultation with NMFS for anadromous salmonids. Note: this can take up to 135 days, once a formal Biological Assessment is completed. If you cannot

[21] If the absence of a "federal nexus", where federally listed species or their critical habitat are present, a Section 10 ESA consultation will be necessary. In that case, the project proponent must prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs usually takes many years.

[22] In some cases, no notification to the Corps may be necessary to receive coverage under an existing Nationwide Permit, however, irrespective of whether notification is explicitly required, if there are *federally listed species or their designated critical habitat* that might be affected, you **must** notify the Corps prior to beginning work. No work shall begin until the Corps is notified and the requirements of the Endangered Species Act are satisfied.

[23] A "federal nexus" is established if an activity is authorized, funded, or carried out by a federal agency and this allows a simpler and faster type of inter-agency consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Corps (e.g., 404 authorization).

[24] If the absence of a "federal nexus", where federally listed species or their critical habitat are present, a Section 10 ESA consultation will be necessary. In that case, the project proponent must prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs usually takes many years.

[25] In some cases, no notification to the Corps may be necessary to receive coverage under an existing Nationwide Permit, however, irrespective of whether notification is explicitly required, if there are *federally listed species or their designated critical habitat* that might be affected, you **must** notify the Corps prior to beginning work. No work shall begin until the Corps is notified and the requirements of the Endangered Species Act are satisfied.

provide documentation that by implementing within operational timing windows, or spatial buffers, the risk of take for non-marine listed species is minimal, the Corps will likely initiate a full formal ESA Section 7 consultation with United States Fish and Wildlife Service (USFWS). Note: this consultation can take up to 135 days, once a formal Biological Assessment is completed. See Sections II.A below, or http://www.spn.usace.army.mil/regulatory/apply.html and http://www.spn.usace.army.mil/regulatory/nwp.html for more information on Corps 404 authorizations/notifications. See Sections II.C.1 and Sections II.C.2 for more information on inter-agency ESA consultations, and http://swr.nmfs.noaa.gov/rcbo.htm for more information on the NOAA/NMFS BO. Note: You will need to provide information in your 404 application or notification about the presence or absence of historic resources so that the Corps may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

***Key to permits provided by state entities for LWM projects in the coho salmon CCC ESU***

**1.** The LWM project requires a Corps 404 authorization or notification (see *Key to permits provided by federal entities for LWM projects in the coho salmon CCC ESU* shown above)…….....2

**1'** The LWM project **does not** require a Corps 404 authorization or notification……..……...3

**2.** Does the LWM project have the potential to take[26] state listed anadromous salmonids? If yes ……...……..……...4

**2'** The project does not have the potential to take state listed anadromous salmonids….....5

**3.** Is the total disturbance area of the LWM project less than 5 acres? (See Section III.B for more information about 'disturbance area'). If yes……..…...**Permitting situation M**

**3'** Is the total disturbance area of the LWM project greater than 5 acres? If yes…….....**Permitting situation N**

**4.** Is the total disturbance area of the LWM project less than 5 acres? (See Section III.B for more information about 'disturbance area'). If yes……..**Permitting situation O**

**4'** Is the total disturbance area of the LWM project greater than 5 acres? If yes…….**Permitting situation P**

**5.** Is the total disturbance area of the LWM project less than 5 acres? (See Section III.B for more information about 'disturbance area'). If yes……**Permitting situation Q**

**5'** Is the total disturbance area of the LWM project greater than 5 acres? If yes……..……..……**Permitting situation R**

**Permitting situation M:** *Note - The probability that you do not need a 404 authorization or notification, i.e. that there is both no potential for a LWM project to generate fill that may enter a water body, and that a project has no potential to affect a federally listed species, is extremely low - as LWM is usually considered to be a fill material, and projects are most often undertaken to benefit a listed salmonid and their habitat.* In short, Permitting situation M would be a very rare situation. You will need to notify the California Department of Fish and Game prior to any activity that would substantially alter the bed, bank, channel, or flow of any river, stream, or lake. If CDFG determines that there may be adverse impacts to fish or wildlife resources, you will need to enter into a Lake or Streambed Alteration Agreement. See Section III.A for more information. Since your total disturbance area is less than 5 acres, you will likely qualify for California Environmental Quality Act Categorical Exemption (Cat Ex) 15333 if the project does not generate significant adverse impacts to listed or rare species (See Section III.B). If CDFG and the Regional Water Quality Control Board determine that the project qualifies for CEQA Cat Ex 15333, then you will not need to complete an Initial Study, CEQA Negative Declaration,

[26] Take is defined in the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Because the state definition of "take", unlike the federal definition, does not include harm and harass the threshold for "take" is higher for the state-listed species.

Mitigated Negative Declaration, or Environmental Impact Report. See Section III.B for more information. Note: If there is potential for the LWM project to take[27] a non-salmonid state listed species (e.g., a state listed rare plant), then you will need to disclose that on your Lake or Streambed Alteration Notification, and take avoidance measures can be determined through the LSAA permit process, or CDFG can help obtain incidental take coverage through the California Endangered Species Act (See Section III.C below). Note: You will need to provide information in your Lake or Streambed Alteration Notification about the presence or absence of historic resources so that CDFG may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation N:** *Note - The probability that you do not need a 404 authorization or notification, i.e. that there is both no potential for a LWM project to generate fill that may enter a water body, and that a project has no potential to affect a federally listed species, is extremely low - as LWM is usually considered to be a fill material, and projects are most often undertaken to benefit a listed salmonid and their habitat.* In short, Permitting situation N would be a very rare situation. You will need to notify the California Department of Fish and Game prior to any activity that would substantially alter the bed, bank, channel, or flow of any river, stream, or lake. If CDFG determines that there may be substantial adverse impacts to fish or wildlife resources, you will need to enter into a Lake or Streambed Alteration Agreement. See Section III.A for more information. Since your total disturbance area is more than 5 acres, you will likely not qualify for California Environmental Quality Act Categorical Exemption 15333. If you do not qualify for CEQA Cat Ex 15333, then you will need to complete an Initial Study, and CEQA Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report. See Section III.B for more information. Note: If there is potential for the LWM project to take[28] a non-salmonid state listed species (e.g., a state listed rare plant), then you will need to disclose that on your Lake or Streambed Alteration Notification, and take avoidance measures can be determined through the LSAA permit process, or CDFG can help obtain incidental take coverage through the California Endangered Species Act (See Section III.C below). Note: You will need to provide information in your Lake or Streambed Alteration Notification about the presence or absence of historic resources so that CDFG may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation O:** You will need to notify the California Department of Fish and Game prior to any activity that would substantially alter the bed, bank, channel, or flow of any river, stream, or lake. If CDFG determines that there may be substantial adverse impacts to fish or wildlife resources, you will need to enter into a Lake or Streambed Alteration Agreement. See Section III.A for more information. Since your total disturbance area is less than 5 acres, you will likely qualify for California Environmental Quality Act Categorical Exemption 15333 if the project does not generate significant adverse impacts to listed or rare species (See Section III.B). If CDFG and the Regional Water Quality Control Board determine that the project qualifies for

[27] Take is defined in the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Because the state definition of "take", unlike the federal definition, does not include harm and harass the threshold for "take" is higher for the state-listed species.

[28] Take is defined in the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Because the state definition of "take", unlike the federal definition, does not include harm and harass the threshold for "take" is higher for the state-listed species.

CEQA Cat Ex 15333, then you will not need to complete an Initial Study, CEQA Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report. See Section III.B for more information. Since you will be applying for a Corps 404 authorization, you will need also need to apply for Section 401 authorization from the Regional Water Quality Control Board so they can determine that your activities conform with state water-quality standards. If you qualify for CEQA Cat Ex 15333 and your project will engender less than 500 lineal feet of disturbance[29] then you can save time and money by filing a *General 401 Water Quality Certification Order for Small Habitat Restoration Projects* (a notification), rather than filing for an individual 401 certification. See Section II.B below for more information. If your project has the potential to take[30] state listed anadromous salmonids, you will need to notify CDFG. If your project complies with the National Oceanic and Atmospheric Administration/National Marine Fisheries Service's Biological Opinion (151422SWR2006SR00190:JMA) for fisheries restoration projects, then CDFG can authorize a consistency determination with that Biological Opinion without individually authorizing take, which saves considerable time. You will need to request this from CDFG in writing. See Section III.C.1 below for more information. Note: If there is potential for the LWM project to take a non-salmonid state listed species (e.g., a state listed rare plant), then you will need to disclose that on your Lake or Streambed Alteration Notification, and take avoidance measures can be determined through the LSAA permit process, or CDFG can help obtain incidental take coverage through the California Endangered Species Act (See Section III.C.2 below). Note: You will need to provide information in your Lake or Streambed Alteration Notification about the presence or absence of historic resources so that CDFG may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation P:** You will need to notify the California Department of Fish and Game (CDFG) prior to any activity that would substantially alter the bed, bank, channel, or flow of any river, stream, or lake. If CDFG determines that there may be substantial adverse impacts to fish or wildlife resources, you will need to enter into a Lake or Streambed Alteration Agreement. See Section III.A for more information. Since your total disturbance area is more than 5 acres, you will likely not qualify for California Environmental Quality Act Categorical Exemption 15333. If you do not qualify for CEQA Cat Ex 15333, then you will need to complete an Initial Study, and CEQA Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report. See Section III.B for more information. Since you will be applying for a Corps 404 authorization, you will need also need to apply for a Section 401 authorization from the Regional Water Quality Control Board so they can determine that your activities conform with state water-quality standards. If you do not qualify for CEQA Cat Ex 15333 then you will have to apply for an individual 401 certification (a lengthy process). See Section II.B below for more information. If your project has the potential to take[31] state listed anadromous salmonids, you will need to notify CDFG. If your project complies with the National Oceanic and Atmospheric Administration/National Marine Fisheries Service's Biological Opinion (151422SWR2006SR00190:JMA) for fisheries restoration projects, then CDFG can authorize a consistency determination with that Biological Opinion without individually authorizing take,

[29] See Section II.B for area of disturbance definition.

[30] Take is defined in the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Because the state definition of "take", unlike the federal definition, does not include harm and harass the threshold for "take" is higher for the state-listed species.

[31] Take is defined in the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Because the state definition of "take", unlike the federal definition, does not include harm and harass the threshold for "take" is higher for the state-listed species.

which saves considerable time. You will need to request this in writing. See Section III.C.1 below for more information. Note: If there is potential for the LWM project to affect a non-salmonid state listed species (e.g., a state listed rare plant), then you will need to disclose that on your Lake or Streambed Alteration Notification, and take avoidance measures can be determined through the LSAA permit process, or CDFG can help obtain incidental take coverage through the California Endangered Species Act (See Section III.C.2 below). Note: You will need to provide information in your Lake or Streambed Alteration Notification about the presence or absence of historic resources so that CDFG may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation Q:** *Note - The probability that a project has no potential to affect a federally listed species, is extremely low - as LWM projects are most often undertaken to benefit a listed salmonid and their habitat.* In short, Permitting situation Q would be rare situation.[32] You will need to notify the California Department of Fish and Game (CDFG) prior to any activity that would substantially alter the bed, bank, channel, or flow of any river, stream, or lake. If CDFG determines that there may be substantial adverse impacts to fish or wildlife resources, you will need to enter into a Lake or Streambed Alteration Agreement. See Section III.A for more information. Since your total disturbance area is less than 5 acres, you will likely qualify for California Environmental Quality Act Categorical Exemption 15333 if the project does not generate significant adverse impacts to listed or rare species (See Section III.B). If CDFG and the Regional Water Quality Control Board determine that the project qualifies for CEQA Cat Ex 15333, then you will not need to complete an Initial Study, CEQA Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report. See Section III.B for more information. Since you will be applying for a Corps 404 authorization, you will need also need to apply for a Section 401 authorization from the Regional Water Quality Control Board so they can determine that your activities conform with state water-quality standards. If you qualify for CEQA Cat Ex 15333 and your project will engender less than 500 lineal feet of disturbance,[33] then you can save time and money by filing a *General 401 Water Quality Certification Order for Small Habitat Restoration Projects* (a notification), rather than filing for an individual 401 certification. See Section II.B below for more information. Note: If there is potential for the LWM project to affect a non-salmonid state listed species (e.g., a state listed rare plant), then you will need to disclose that on your Lake or Streambed Alteration Notification, and take avoidance measures can be determined through the LSAA permit process, or CDFG can help obtain incidental take coverage through the California Endangered Species Act (See Section III.C.2 below). Note: You will need to provide information in your Lake or Streambed Alteration Notification about the presence or absence of historic resources so that CDFG may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

**Permitting situation R:** *Note - The probability that a project has no potential to affect a federally listed species, is extremely low - as LWM projects are most often undertaken to benefit*

[32] But could be possible – for example if the work was to take place in a stream that goes seasonally dry, and work would take place when the channel is dry and listed salmonids are not present.
[33] See Section II.B for area of disturbance definition.

*a listed salmonid and their habitat.* In short, Permitting situation R would be rare situation.[34] You will need to notify the California Department of Fish and Game (CDFG) prior to any activity that would substantially alter the bed, bank, channel, or flow of any river, stream, or lake. If the CDFG determines that there may be substantial adverse impacts to fish or wildlife resources, you will need to enter into a Lake or Streambed Alteration Agreement. See Section III.A for more information. Since your total disturbance area is more than 5 acres, you will likely not qualify for California Environmental Quality Act Categorical Exemption 15333. If you do not qualify for CEQA Cat Ex 15333, then you will need to complete an Initial Study, and CEQA Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report. See Section III.B for more information. Since you will be applying for a Corps 404 authorization, you will need also need to apply for a Section 401 authorization from the Regional Water Quality Control Board so they can determine that your activities conform with state water-quality standards. If you do not qualify for CEQA Cat Ex 15333 then you will have to apply for an individual 401 certification (a lengthy process). See Section II.B below for more information. Note: If there is potential for the LWM project to affect a non-salmonid state listed species (e.g., a state listed rare plant), then you will need to disclose that on your Lake or Streambed Alteration Notification, and take avoidance measures can be determined through the LSAA permit process, or CDFG can help obtain incidental take coverage through the California Endangered Species Act (See Section III.C.2 below). Note: You will need to provide information in your Lake or Streambed Alteration Notification about the presence or absence of historic resources so that CDFG may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

[34] But could be possible – for example if the work was to take place in a stream that goes seasonally dry, and work would take place when the channel is dry and listed salmonids are not present.

***Key to permits provided by local entities for LWM projects in the coho salmon CCC ESU***

**1.** Is the LWM project located within the Coastal Development Zone?[35] If yes……..**Permitting situation S**

**1'** The LWM project is not located within the Coastal Development Zone……**Permitting situation T**

**Permitting situation S:** You may need a Coastal Zone Development Permit to implement a LWM project in the Coastal Development Zone. Consult with your local county planning office to determine whether or not a Coastal Zone Development Permit will be necessary. There may be additional local regulations (e.g., county or municipal regulations) such as flood control, erosion control, or sensitive habitat protection ordinances that may apply. Please consult your local county or municipal planning office for more information.

**Permitting situation T:** You **will not** need a Coastal Zone Development Permit. However there may be additional local regulations (e.g., county or municipal regulations) such as flood control, erosion control, or sensitive habitat protection ordinances that may apply. Please consult your local county or municipal planning office for more information.

[35] See http://www.coastal.ca.gov/lcp/lcpstatus-map-nc.pdf, http://www.coastal.ca.gov/lcp/lcpstatus-map-ncc.pdf, and http://www.coastal.ca.gov/lcp/lcpstatus-map-cc.pdf, as well as http://www.coastal.ca.gov/cdp/cdp-forms.html for help determining whether or not your project is located within the Coastal Development Zone.

## II. Federal Regulations

### A. Section 404 of the Clean Water Act & Section 10 of the Rivers and Harbors Act

**Implementing Agency –** United States Army Corps of Engineers

**Summary –** The Corps enforces Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Section 404 of the CWA requires that an authorization be obtained from the Corps for the discharge of dredged or fill material into "waters of the United States, including wetlands."[36] Section 10 of the Rivers and Harbors Act of 1899 prohibits the unauthorized obstruction or alteration of any navigable waters of the United States without a permit from the Corps.

**Triggers –** 404 authorization will be required for any project that could result in the discharges of fill material into a wetland (non-isolated)[37] or other water of the US. Common types of dredge and fill material associated with large wood augmentation projects could include rock, sand, gravel, soil, wood, etc. These materials may be generated incidentally for projects where heavy equipment will not enter the wetted channel (e.g., incidental bank erosion, or erosion from skid trails), or may be more direct where channel bed or stream bank excavation is necessary to place wood.

Section 10 authorization is required for the construction or modification of any structure in or over a navigable water[38] of the United States. Structures or work outside the limits defined for navigable waters of the United States require Section 10 authorization if the structure or work affects the course, location, or condition of the water body. Some streams in which wood augmentation projects will take place are considered navigable by the Corps, and could require Section 10 authorization.

**Processes –** If Section 404 jurisdiction encompasses areas regulated by Section 10, the Corps typically combines the permit requirements of Section 10 and Section 404 into one permitting process. The Corps issues two types of permits under Section 404 and Section 10, general permits (either nationwide or regional) and standard permits (either letters of permission or individual permits). Standard permits (letters of permission and individual permits) are issued for activities that do not qualify for a general permit, i.e., that may have more than a minimal adverse environmental impact. General permits (nationwide permits [NWP] and regional general

[36] Water bodies under federal jurisdiction ("U.S. waters") include permanent, standing or continuously flowing bodies of water such as streams, oceans, rivers, and lakes. See http://www.spn.usace.army.mil/regulatory/jd.html#jurisdictionaldetermination for more information.
[37] Non-isolated wetlands are those that are connected by surface water (via others wetlands, culverts, channels, etc) to adjacent waters of the US.
[38] Navigable waters are those subject to the ebb and flow of the tide shoreward to the mean high water mark and/or presently used, or have been used in the past, or are susceptible for use to transport interstate or foreign commerce. The term includes coastal and inland waters, lakes, rivers and streams that are navigable, and the territorial seas.

permits [RGP]) are issued by the Corps to streamline the Section 404 process for activities that have minimal environmental impacts. Most large wood augmentation projects should qualify for either a regional general permit or a nationwide permit. These two types of permits are described below.

*Nationwide Permits*: A nationwide permit is a form of general permit which authorizes a category of activities throughout the nation. There are a number of NWPs that could be applicable to large wood augmentation projects. These permits are valid only if the conditions applicable to the permits are met. If the conditions cannot be met, a regional or individual permit will be required. Most large wood augmentation projects within the coho salmon CCC ESU can be covered under Nationwide Permit 27 for Stream and Wetland Restoration Activities, if they also have received a consistency determination with the National Oceanic and Atmospheric Administration (NOAA)/National Marine Fisheries Service's (NMFS) Biological Opinion (BO) (file # 151422SWR2006SR00190:JMA) covering permitting of restoration projects within the geographic boundaries of NMFS's Santa Rosa, California, field office (see Section II.C.1 below), or another binding agreement with a federal agency such as United States Fish and Wildlife Service, Natural Resources Conservation Service, or Farm Services Agency.[39]

*Regional General Permits (RGPs)*- There is only one Regional General Permit in place that covers large wood augmentation projects in the coho salmon CCC ESU: RGP 12. RGP 12 covers anadromous salmonid habitat restoration projects implemented under the California Department of Fish and Game's Fisheries Restoration Grant Program (see Section V.A below).

RGP 12 authorizes minor fill discharges of clean earth, gravel, rock, and wood strictly for the purpose of restoring salmonid fisheries habitat in non-tidal reaches of rivers and streams, improving watershed conditions impacting salmonid streams, and improving the survival, growth, migration, and reproduction of native salmonids. All authorized salmonid habitat restoration projects must conform to state law and be implemented consistent with the *California Salmonid Stream Habitat Restoration Manua*l (Flosi et al. 1998). To be eligible for RGP 12, the project must be funded by CDFG's Fisheries Restoration Grant Program.

Corps Section 404 applications and more information can be found on the Corps San Francisco Office website: http://www.spn.usace.army.mil/regulatory/apply.html. More information on Corps Nationwide Permits can be found at http://www.spn.usace.army.mil/regulatory/nwp.html. More information on Corps Regional General Permits can be found at: http://www.spn.usace.army.mil/regulatory/regper.html.

**Who to contact with questions –** Contact your regional Corps office, depending on your location within the CCC ESU. You can find out what jurisdiction you lie within and get updated

[39] In some cases, no notification to the Corps may be necessary to receive coverage under an existing Nationwide Permit, however, irrespective of whether notification is explicitly required, if there are *federally listed species or their designated critical habitat* that might be affected, you must notify the Corps prior to beginning work. No work shall begin until the Corps is notified and the requirements of the Endangered Species Act are satisfied.

contact information at: http://www.spn.usace.army.mil/regulatory/people2.htm, or call 415-503-6795.

### B. Section 401 of the Clean Water Act[40]

**Implementing Agency –** Regional Water Quality Control Boards

**Summary –** Under Section 401 of the United States Clean Water Act, the Regional Water Quality Control Boards have the authority to issue, waive, or deny certification that a proposed activity is in conformance with state water quality standards. Anyone proposing to conduct a project that may result in a discharge to U.S. surface waters[41] and/or "Waters of the State"[42] are required to obtain a Clean Water Act Section 401 Water Quality Certification and/or a set of Waste Discharge Requirements before the project can begin. The 401 certification is essentially a "permit" for discharges to waterways that may occur during the construction phase of a project. The nine Regional Water Quality Control Boards (Regional Boards) and State Water Resources Control Board (SWRCB) administer the Section 401 permitting process of the federal Clean Water Act.

Some large wood augmentation projects may qualify for coverage under the State Water Resources Control Board's *General 401 Water Quality Certification Order for Small Habitat Restoration Projects*, rather than needing an individual 401 certification. The *General 401 Water Quality Certification Order for Small Habitat Restoration Projects* provides landowners a straightforward, streamlined, and cost-effective method for addressing CWA Section 401 requirements for projects designed to restore habitat.

**Triggers –** The need for a 401 certification is triggered by the potential for an activity to result in the release of material into a waterway. Any project that requires a federal permit or license for an activity that may result in the discharge of dredge or fill material (e.g., Section 404 or Section 10 authorization from the Corps) must also obtain water quality certification from the state. The activities associated with large wood augmentation projects may result in the discharges to U.S. waters and/or "Waters of the State" (i.e., incidental bank erosion, opening of skid trails, embedment of woody material in stream bottom or stream banks, etc.) and therefore require a permit prior to implementation.

Large wood augmentation projects may qualify for coverage under the State Water Resources Control Board's *General 401 Water Quality Certification Order for Small Habitat Restoration Projects* so long as the project meets the eligibility requirements. In order to qualify for coverage under the *General 401 Certification for Small Habitat Restoration Projects*, a project must: (1) be

[40] A federal regulation implemented by a state agency.
[41] Water bodies under federal jurisdiction ("U.S. waters") include permanent, standing or continuously flowing bodies of water such as streams, oceans, rivers, and lakes. See http://www.spn.usace.army.mil/regulatory/jd.html#jurisdictionaldetermination for more information.
[42] Defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Broadly construed to include all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels.

consistent with the CEQA Categorical Exemption for Small Habitat Restoration Projects (Cat Ex 15333), (2) not exceed five acres or 500 linear feet of stream bank or coastline,[43] (3) receive pre-project authorization, (4) not be a compensatory mitigation project, and (5) be a restoration project as the primary purpose.

Projects that do not qualify for coverage under the *General 401 Water Quality Certification Order for Small Habitat Restoration Projects* will likely be required to obtain an individual Section 401 permit, and a set of waste discharge requirements.

**Processes –** In order to obtain coverage under the *General 401 Water Quality Certification Order for Small Habitat Restoration Projects*, a project proponent must: (a) ensure that the project meets the eligibility requirements, (b) submit a *Notice of Intent* for review by the appropriate Regional Board, (c) provide an application fee (currently $114), and (d) develop a monitoring plan. After project completion, the proponent is required to submit a monitoring report and *Notice of Completion* to the Regional Water Board no later than 30 days after project completion. In addition, 401 certification will be directly linked to a Corps 404 permit. In order for the Regional Board to certify a project as 401 compliant, the project must have a applied for a 404 authorization from the Corps or notified the Corps of applicability of a Nationwide Permit (e.g., Nationwide Permit 27).

The *General 401 Water Quality Certification Order for Small Habitat Restoration Projects* and *Notice of Intent* can be found at the following location:
http://www.waterboards.ca.gov/water_issues/programs/cwa401/generalorders.shtml

For projects that do not qualify for coverage under the *General 401 Water Quality Certification Order for Small Habitat Restoration Projects*, an individual Section 401 Water Quality Certification and/or Waste Discharge Requirements Permit is required; information can be found at the following web address:
http://www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification.shtml

**Who to contact with questions –** Contact your local Regional Board (either North Coast or Central Coast Regional Water Quality Control Board), depending on your location within the CCC ESU. You can determine what Regional Board's jurisdiction you lie within at:
http://www.waterboards.ca.gov/waterboards_map.shtml

### C. United States Federal Endangered Species Act

*1. Federal incidental take coverage for marine species (including anadromous salmonids within the coho salmon CCC ESU)*

**Implementing Agency –** National Marine Fisheries Service

[43] See Appendix 1 for suggested methods for calculating disturbance in lineal feet.

**Summary –** National Marine Fisheries Service administers the United States Endangered Species Act in the coho salmon CCC ESU, for nearly all marine species (e.g., coho and Chinook salmon, steelhead trout).[44] NMFS must ensure protection of those marine species federally listed as threatened or endangered. Section 9 of the ESA prohibits the "take" of listed species. [45] If the potential for project activities to result in "take" of a marine federally-listed species exists, NMFS in consultation with the Corps or other Lead Federal Agency may issue an "incidental take permit" (pursuant to either Section 7 or Section 10 of the ESA).

Consultation with NMFS is conducted via one of two pathways (Section 7 or Section 10) depending on whether or not a "federal nexus" exists for the project. A federal nexus is established if an activity is authorized, funded, or carried out by a federal agency, and this allows a simpler type of consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Corps (e.g., 404 authorization).

*Section 7 Consultation* - If a federal nexus does exist for a particular project, inter-agency consultation with NMFS may proceed via a Section 7 ESA consultation. Under Section 7, if a project is "authorized, funded, or carried out" by a federal agency, that federal agency must ensure that these actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat.[46] For example, if the project is authorized, funded or carried out by a federal agency (e.g., the Corps issuing a 404 authorization), the federal agency (e.g., the Corps) will initiate inter-agency consultation with NMFS. Typically this is a much less arduous process for a project proponent than a Section 10 consultation (described below). If there are marine ESA listed species present at the work site, it behooves the project applicant to apply for a Corps 404 authorization (either individual authorization or authorization through a Nationwide Permit) to acquire the federal nexus, and proceed with a Section 7 ESA consultation rather than a Section 10 ESA consultation. Alternatively, the federal nexus may also be achieved by a project receiving funding from a federal agency, such as Natural Resources Conservation Service (NRCS) or the Federal Emergency Management Agency (FEMA).

*Section 10 Consultation* – For projects where there is no federal nexus, Section 10(a)(1)(B) of the ESA authorizes NMFS to issue incidental take permits for otherwise lawful actions for which it is impractical to avoid take of a listed species. Under Section 10, the project applicant must

[44] There are a few exceptions where USFWS administers the ESA for marine animals (e.g., sea otter, Pacific lamprey…)
[45] "Take" is defined as: to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a listed species. Harm includes actions such as significant habitat modification that kill or injure listed species. "Critical habitat" for listed species consists of either 1) the specific areas within the geographical area occupied by the species at the time it is listed in accordance with the provisions of ESA on which are found those physical or biological features (constituent elements) that are a. essential to the conservation of the species and b. which may require special management considerations or protections and 2) areas outside the geographical range occupied by the species at the time it is listed but that are determined to be essential for the conservation of the species.
[46] "Critical habitat" for listed species consists of either 1) the specific areas within the geographical area occupied by the species at the time it is listed in accordance with the provisions of ESA on which are found those physical or biological features (constituent elements) that are a. essential to the conservation of the species and b. which may require special management considerations or protections and 2) areas outside the geographical range occupied by the species at the time it is listed but that are determined to be essential for the conservation of the species.

meet certain requirements to comply with ESA, including the requirement to prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. To date, in California, only a small handful of coastal aquatic HCP's covering listed salmonids have been completed. Development of these HCPs has taken many years.

**Triggers –** If there is the potential for a marine federally-listed threatened or endangered species to be present in the project area and it may be affected by the activity, some level of consultation with NMFS is required. To determine the likelihood for listed species to be present, the project proponent can check existing environmental documents prepared in the project area, conduct surveys, and call NMFS to determine the potential for listed species to occur in the project area.

If the project proponent can show that project activities can avoid or will have only very minimal effects to listed species in the project area, and a federal nexus exists, an informal Section 7 ESA interagency consultation can occur with NMFS. If project activities have the potential to result in take of the listed species, or impacts to designated critical habitat, as described above, a formal consultation process under Section 7 or 10 may be required, depending on whether a federal nexus exists. The potential for take, or impacts to critical habitat, is generally the threshold that triggers a formal consultation with NMFS.

**Processes –** The vast majority of large wood augmentation projects will have a federal nexus via the Corps through Section 404 of the Clean Water Act or via funding from a federal agency such as the Natural Resources Conservation Service. If the federal agency (e.g., the Corps or NRCS) determines that their action (e.g., the permit or funding they issue to a project proponent) may affect a marine listed species, they must initiate Section 7 consultation with NMFS. When working with the Corps or NRCS, a project proponent must inform the agencies of the presence of marine federally listed species to ensure that all appropriate supporting materials are developed for consultation.

It should be noted that in addition to the traditional Section 7 pathways (formal or informal consultation) many large wood augmentation projects will be able to utilize a Programmatic Consultation/Programmatic Biological Opinion (PBO) through Section 7. These permitting vehicles will enable an applicant to move through a formal Section 7 consultation quickly, avoiding the time intensive process of a regular formal Section 7 ESA consultation (up to 135 days following completion of a Biological Assessment) even when a project has potential to impact an endangered species. There are currently three PBO mechanisms available for large wood augmentation projects that meet certain conditions. The first mechanism is the NOAA/NMFS Biological Opinion (file # 151422SWR2006SR00190:JMA) covering permitting of salmon habitat restoration projects within the geographic boundaries of NMFS's Santa Rosa, California field office. This Biological Opinion can provide expedited federal incidental take coverage for listed salmonid species[47] from Mendocino County south down to the headwaters of the Salinas River in San Luis Obispo County, for salmonid habitat restoration projects that meet

[47] Southern Oregon/Northern California Coast coho salmon, Central California Coast coho salmon, Northern California steelhead, Central California Coast steelhead, South-Central California Coast steelhead

certain implementation requirements and implement certain protection measures. Most large wood augmentation projects in the coho salmon CCC ESU should be eligible for coverage under this BO. Two other PBOs are applicable within the coho salmon CCC ESU. The Partners in Restoration (PIR) Permit Coordination Programs have PBOs with NOAA/NMFS for PIR projects (see Section VI.B), and Regional General Permit (RGP) 12 has an associated PBO for projects funded through California Department of Fish and Game's Fisheries Restoration Grants Program (see Section VI.A).

*Informal Consultation* - NMFS conducts an informal consultation under Section 7 when the effects of a proposed project are discountable, insignificant, or completely beneficial to the listed species in the project area and no incidental take will occur, and a federal nexus exists. In order for NMFS to make a determination to conduct an informal consultation vs. a formal consultation, the project proponent must supply the Federal Lead Agency (probably the Corps for large wood augmentation projects) with sufficient information on the project and the species of concern to justify the informal consultation. Informal consultations are typically concluded with a letter from NMFS, usually within approximately one month of the initiation of the consultation. Since most large wood augmentation projects in the coho salmon CCC ESU are specifically implemented in areas where federally listed salmon and trout are present, in order to improve their habitat, it is most often the case that these species have high likelihood of presence during construction, which means incidental take coverage will be needed.

*Formal Consultation* - NMFS can conduct expedited formal Section 7 consultations to provide take coverage by determining consistency with the NOAA/NMFS's Biological Opinion (file # 151422SWR2006SR00190:JMA) covering permitting of restoration projects within the geographic boundaries of NMFS's Santa Rosa, California field office. To determine consistency with this NOAA/NMFS BO, the project must meet certain requirements, and the Corps must initiate Section 7 inter-agency consultation with NMFS prior to issuing a 404 authorization. To that end, the project proponent must apply for an individual Corps 404 authorization or notify the Corps of intent to operate under a Nationwide Permit, to be eligible for a consistency determination with the NOAA/NMFS BO. A consistency determination with the NOAA/NMFS BO will provide incidental take coverage for federally listed salmonids for the project. The Section 7 inter-agency ESA consultation under this BO can often be completed in 30 days or less.

If a project is likely to affect listed species or critical habitat and take of listed species is anticipated, and the project is not eligible for a PBO, but does have a federal nexus, then NMFS will initiate a regular Section 7 formal consultation with the Lead Federal Agency. In order for a regular (non-PBO) Section 7 formal consultation to commence, a Biological Assessment (BA) that details the potential for take and all measures that will be enforced to avoid, minimize, and mitigate for any take will be necessary. Section 7 formal consultations (in the absence of an existing PBO) are concluded with NMFS issuing a site-specific Biological Opinion, which is generally based on the BA supplied by the Lead Federal Agency (generally with information supplied by the project proponent). This process will take up to 135 days, not including preparation of the BA. The BO may include terms and conditions to further reduce impacts. Authorization of incidental take is also included in this BO.

As noted above, if a federal nexus does not exist for the project, then a Section 10 consultation will be necessary. In that case, the project applicant must meet certain requirements to comply with ESA, including the requirement to prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. To date, in California, only a small handful of coastal aquatic HCP's that cover listed salmonids have been completed. Development of these HCPs has taken many years.

Some examples of when different consultations might be triggered are provided below:

1) A large wood augmentation project is proposed in an area that contains suitable habitat for coho salmon and/or steelhead trout with the aim to improve habitat for them. If the project proponent is able to show that project activities meet the requirements of the NOAA/NMFS Biological Opinion (file # 151422SWR2006SR00190:JMA), and the project proponent has applied for a Corps 404 authorization, Corps and NMFS can formally consult under Section 7, with NMFS providing a consistency determination that provides federal incidental take coverage for salmonids in an expedited manner.

2) A large wood augmentation project is proposed in an area that contains suitable habitat for coho salmon and/or steelhead trout with the aim to improve habitat for them. The project lead is **not** able to show that project activities meet the requirements of the NOAA/NMFS Biological Opinion (file # 151422SWR2006SR00190:JMA), but the project proponent has applied for a Corps 404 authorization. The Corps and NMFS can formally consult under Section 7 to provide incidental take coverage, but a Biological Assessment and Biological Opinion will need to be prepared and the process may take more than 135 days.

3) A large wood augmentation project is proposed in an area that contains suitable habitat for coho salmon and/or steelhead trout with the aim to improve habitat for them. The project lead is **not** able to show that project activities meet the requirements of the NOAA/NMFS Biological Opinion (file # 151422SWR2006SR00190:JMA), and the project proponent has **not** applied for a Corps 404 authorization, and does not have any other federal nexus (e.g., NRCS funding). The project applicant will need to prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. This process will take many years.

The NMFS Biological Opinion (file # 151422SWR2006SR00190:JMA), terms and conditions, and submittal package can be found at: http://swr.nmfs.noaa.gov/rcbo.htm.

**Who to contact with questions –** Call the NMFS Southwest Region Field Office Protected Resource Division at 707-575-6050.

*2. Federal incidental take coverage for other non-marine federally listed species*

**Implementing Agency –** United States Fish and Wildlife Service

**Summary –** United States Fish and Wildlife Service administers the United States Endangered Species Act in the coho salmon CCC ESU, for all non-marine listed species (e.g., California red-legged frog, California tiger salamander, Northern spotted owl). USFWS must ensure protection of those species federally listed as threatened or endangered. Section 9 of the ESA prohibits the "take" of listed species.[48] If the potential for project activities to result in take, or impact to designated critical habitat of a non-marine federally-listed species exists, USFWS in consultation with the United States Army Corps of Engineers or other Lead Federal Agency may issue an "incidental take permit" (pursuant to either Section 7 or Section 10 of the ESA).

Consultation with USFWS is conducted via one of two pathways depending on whether or not a "federal nexus" exists for the project. A federal nexus is established if an activity is authorized, funded, or carried out by a federal agency and this allows a simpler type of consultation via Section 7 of the ESA. A common example of a federal nexus is if a project requires a permit from another federal agency such as the Corps (e.g., 404 authorization).

*Section 7 Consultation* - If a federal nexus does exist for a particular project, inter-agency consultation with USFWS may proceed via a Section 7 consultation. Under Section 7, if a project is "authorized, funded, or carried out" by a federal agency, that federal agency must ensure that these actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat.[49] For example, if the project is authorized, funded or carried out by a federal agency (e.g., the Corps is completing a 404 authorization), the federal agency (e.g., the Corps) will initiate the inter-agency consultation with USFWS. Typically this is a much less arduous process for a project proponent than Section 10 (described below). If there are non-marine ESA listed species present at the work site, it behooves the project applicant to apply for an individual 404 authorization or submit a notification of intent to operate under a Corps Nationwide Permit, to acquire the federal nexus, and proceed with a Section 7 ESA consultation rather than a Section 10 ESA consultation. Alternatively, the federal nexus may also be achieved by a project receiving funding from a federal agency, such as Natural Resources Conservation Service (NRCS), or the Federal Emergency Management Agency (FEMA).

*Section 10 Consultation* - For projects where there is no federal nexus, Section 10(a)(1)(B) of the ESA authorizes USFWS to issue incidental take permits for otherwise lawful actions for

[48] "Take" is defined as: to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a listed species. Harm includes actions such as significant habitat modification that kill or injure listed species. "Critical habitat" for listed species consists of either 1) the specific areas within the geographical area occupied by the species at the time it is listed in accordance with the provisions of FESA on which are found those physical or biological features (constituent elements) that are: a. essential to the conservation of the species and b. which may require special management considerations or protections, and 2) areas outside the geographical range occupied by the species at the time it is listed but that are determined to be essential for the conservation of the species.

[49] "Critical habitat" for listed species consists of either 1) the specific areas within the geographical area occupied by the species at the time it is listed in accordance with the provisions of FESA on which are found those physical or biological features (constituent elements) that are: a. essential to the conservation of the species and b. which may require special management considerations or protections, and 2) areas outside the geographical range occupied by the species at the time it is listed but that are determined to be essential for the conservation of the species.

which it is impractical to avoid take of a listed species. Under Section 10, the project applicant must meet certain requirements to comply with ESA, including the requirement to prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs usually takes many years.

**Triggers –** If there is the potential for a non-marine federally-listed threatened or endangered species to be present in the project area and it may be affected by the activity, some level of consultation with USFWS is required. To determine the likelihood for listed species to be present, the project proponent can check the California Natural Diversity Database,[50] existing environmental documents prepared in the project area, conduct surveys, and call USFWS to determine the potential for listed species to occur in the project area.

If the project proponent can show that project activities can avoid or will have only very minimal effects to listed species in the project area, and the project has a "federal nexus", informal Section 7 inter-agency consultation can occur between USFWS and the Lead Federal Agency. If project activities have the potential to result in take of the listed species, or impacts to designated critical habitat as described above, a formal Section 7 consultation process may be required. The potential for take, or impacts to critical habitat, is generally the threshold that triggers a formal inter-agency consultation with USFWS.

**Processes –** The vast majority of large wood augmentation projects will have a federal nexus via the Corps and Section 404 of the Clean Water Act or via funding from a federal agency such as the Natural Resources Conservation Service. If the federal agency (e.g., the Corps or NRCS) determines that their action (e.g., the permit they issue to a project proponent) may affect a non-marine listed species, they must initiate Section 7 consultation with USFWS. When working with the Corps or NRCS, a project proponent must inform the agencies of the presence of non-marine federally listed species to ensure that all appropriate supporting materials are developed for consultation.

It should be noted that in addition to the traditional Section 7 pathways (formal or informal consultation) certain large wood augmentation projects might be able to utilize a Programmatic Consultation/Programmatic Biological Opinion (PBO) through Section 7. This permitting vehicle enables an applicant to move through a formal Section 7 consultation quickly, avoiding the time intensive process of a regular formal Section 7 ESA consultation (up to 135 days, not including preparation of a Biological Assessment), even when a project is likely to adversely impact an endangered species. There are currently three PBO mechanisms available to a subset of large wood augmentation projects that meet certain conditions. The first is through the Partners in Restoration (PIR) Permit Coordination Program for projects that meet the criteria articulated in the Permit Coordination Program (see Section VI.B), and the second is the Regional General Permit (RGP) 12 for projects funded through California Department of Fish and Game's Fisheries Restoration Grants Program (see Section VI.A). In addition, there is a species specific PBO for California red-legged frog that may apply to many wood augmentation projects in the

[50] The California Natural Diversity Database (CNDDB) is the repository of information on rare, threatened, and endangered plants and animals maintained by the Habitat Conservation Division of the California Department of Fish and Game (CDFG).

CCC ESU that require a Corps 404 authorization. This PBO, issued by USFWS in 1999, covers certain activities, such as restoration projects, in Napa, Solano, Contra Costa, Alameda, eastern San Mateo, Santa Clara, San Benito, Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, and Ventura Counties, as well as sections of Marin and Sonoma Counties that either drain to the coast or San Francisco Bay. Note Mendocino County is not included in this PBO. To be eligible for the PBO, the project must have a federal nexus through the Corps 404 permitting process.

*Informal Consultation* - USFWS can conduct an informal consultation under Section 7 when the effects of a proposed project are discountable, insignificant, or completely beneficial to the non-marine listed species in the project area and no incidental take will occur, and a federal nexus occurs. For USFWS to make a determination to conduct an informal consultation vs. a formal consultation, the project applicant must supply the Federal Lead Agency (probably the Corps for large wood augmentation projects) with sufficient information on the project and the species of concern to justify the informal consultation. Informal consultations are typically concluded with a letter from USFWS, usually within approximately one month of the initiation of the consultation.

*Formal Consultation* - USFWS can conduct an expedited formal Section 7 consultation to provide take coverage by determining consistency with an existing PBO (such as the California red legged frog PBO mentioned previously) if a federal nexus exists. These inter-agency consultations can often be completed in 30 days or less.

If a project is likely to affect non-marine listed species or critical habitat and take of listed species is anticipated, and the project is not eligible for a PBO but does have a federal nexus, then USFWS will initiate a regular Section 7 formal consultation with the Lead Federal Agency. In order for a regular (non-PBO) Section 7 formal consultation to commence, a Biological Assessment (BA) that details the potential for take and all measures that will be enforced to avoid, minimize, and mitigate for any take will be necessary. Section 7 formal consultations (in the absence of an existing PBO) are concluded with USFWS issuing a Biological Opinion (BO), which is generally based on the BA supplied by the Lead Federal Agency (generally with information supplied by the project proponent). This process will take up to135 days, not including preparation of the BA. The BO may include terms and conditions to further reduce impacts. Authorization of incidental take is also included in this BO.

As noted above, if a federal nexus does not exist for the project, then a Section 10 consultation will be necessary. In that case, the project proponent must meet certain requirements to comply with the ESA, including the requirement to prepare a habitat conservation plan (HCP) that analyzes and explains an action's impacts on the listed species and discusses measures to minimize and mitigate the impacts of the otherwise lawful activity. Development of HCPs often takes many years.

Some examples of when informal and formal consultations might be triggered are provided below:

1) A large wood augmentation project is located in an area that contains suitable habitat for the California red-legged frog. If the project proponent is able to show that project

activities can avoid this area during construction (rope or fence it off for example) and that frogs are not present in the construction area, it is possible that consultation could proceed with a Section 7 informal consultation with USFWS, if a federal nexus is present. On the other hand, if project activities were likely going to involve work in areas characterized as suitable habitat for the California red-legged frog and the absence of frogs could not be proven via presence/absence surveys, such project activities might result in take of the species and would likely require a Section 7 formal consultation, if a federal nexus is present.

2) A large wood augmentation project is located in an area that contains suitable habitat for Northern spotted owl. If the project proponent has a federal nexus, and has multi-year detailed monitoring data on activity centers and nesting status, a case may be made through informal Section 7 inter-agency consultation with USFWS that this data provides sufficient level of detail to avoid operations near known activity centers within nesting season, and therefore avoid take. On the other hand, if project activities were likely going to involve work in areas characterized as suitable habitat for the Northern spotted owl (and the absence of owls could not be proven via surveys), such project activities might result in take of the species and would require a Section 7 formal consultation, if a federal nexus is present, or a Section 10 consultation if it is not.

For more information on inter-agency ESA consultations in the CCC ESU see http://www.fws.gov/sacramento/es/consultations.htm in the jurisdiction of the Sacramento Field Office, http://www.fws.gov/arcata/es/consultation.html in the jurisdiction of the Arcata Field Office, and http://www.fws.gov/ventura/endangered/consultations/index.html in the jurisdiction of the Ventura Field Office. See http://www.fws.gov/ventura/about/response_area.html to determine USFWS Field Office jurisdiction. The California red legged frog PBO is not currently available online but can be acquired from your regional USFWS office.

**Who to contact with questions –** If you are applying for a Corps 404 authorization as well, contact your regional Corps office, depending on your location within the CCC ESU. Since they will handle the inter-agency consultation with USFWS during the 404 authorization process, they should be able to answer questions. You can find out what Corps jurisdiction you lie within and get updated contact information at: http://www.spn.usace.army.mil/regulatory/people2.htm, or call 415-503-6795. You may also contact the Region 8 USFWS Endangered Species Programs directly. Contact information can be found at http://www.fws.gov/sacramento/es/branches.htm for the Sacramento Field Office, or by calling 916-414-6625. Contact information can be found at http://www.fws.gov/ventura/about/directory.html for the Ventura Field Office, or by calling 805-644-1766. Contact information can be found at http://www.fws.gov/arcata/staff/default.asp for the Arcata Field Office, or by calling 707-822-7201.

### D. Section 106 of the National Historic Preservation Act[51]

**Implementing Agency –** State Historical Preservation Officer

**Summary –** Section 106 of the National Historic Preservation Act (Section 106) requires federal agencies that either fund or permit a project in any state take into account the effect of the project on any property on or eligible for nomination to the National Register of Historic Places. Section 106 and subsequent regulations issued under the National Historic Preservation Act require that all historic and archaeological sites within an area affected by a project funded by or requiring a license or permit from a federal department or agency be evaluated to determine if they are significant under guidelines outlined in the National Register of Historic Places. Section 106 requires federal agencies to conduct a consultation with the State Historic Preservation Officer to determine if historic resources exist or could exist near the project area, determine the potential for impacts, and develop mitigation plans.

**Triggers –** For a large wood augmentation project, any project that is either funded by a federal entity (e.g., NMFS, NRCS, etc…) or requires a federal permit (e.g., Corps 404 authorization) will be subject to the requirements of Section 106. Large wood augmentation projects will also address Section 106 concerns through the California Environmental Quality Act process at the state level, usually through the California Department of Fish and Game Lake or Streambed Alteration Agreement process (see Section III.A below).

**Processes –** Section 106 requires a phased approach to compliance. The first phase includes: determination of the Area of Potential Effect (APE) for each project; background document review; and, if necessary, field investigations of historic structures and/or archeological sites. If no historic resources are found or known to exist within the APE, the consultation is complete. Phase 2 investigations are required when a historic standing structure, building or feature and/or archaeological sites are encountered within the APE and if the State Historic Preservation Officer (SHPO) concurs or determines that Phase II investigations are necessary. The goal of Phase II investigations is to determine if the property is eligible for inclusion on the National Register of Historic Places. If, following Phase 2 investigations, a site is determined historic and thereby eligible for nomination to the National Register of Historic Places, project proponent, permitting agency, and the SHPO enter into discussions to determine what steps are needed to arrive at a *determination of no adverse effect.* For large wood augmentation projects, discussion would take place between the project proponent, the federal agency and SHPO. Any number of options may be explored at this time. These may include, but are not limited to, modification of the proposed undertaking or documentation of historic property. This initial consultation process usually results in an agreement known as a Memorandum of Agreement.

It should be noted that Section 106 related resources and potential impact to those resources must also be divulged and addressed in each project's CEQA documentation (usually the CDFG Lake or Streambed Alteration Agreement).

[51] A federal regulation implemented by a State agency.

When applying for a federal permit (e.g., Corps 404 authorization), enclose existing archeological reports that pertain to the work area (recent background document review and field investigations of historic structures and/or archeological sites), if available. If such reports are available and indicate no historic resources are found or known to exist within the APE, then the federal agency (e.g., the Corps) will likely not need to consult with SHPO. When applying for a CDFG LSAA (see Section III.A below), follow the same procedure, including available reports and materials.

**Who to contact with questions –** If you are applying for a Corps 404 authorization as well, contact your regional Corps office, depending on your location within the CCC ESU. Since they will handle the consultation with SHPO during the 404 authorization process, if required, they should be able to answer questions. You can find out which Corps jurisdiction you lie within and get updated contact information at: http://www.spn.usace.army.mil/regulatory/people2.htm, or call 415-503-6795. For federally funded projects, contact your grant manager for more information.

For Section 106 questions in the CEQA process, contact your regional CDFG office: http://www.dfg.ca.gov/regions/.

CDFG Northern Region (Mendocino County) - 707-445-6493

CDFG San Francisco Bay Region (Napa, Sonoma, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, Santa Cruz, San Francisco Counties) - 707-944-5500

## III. California State Regulations

### A. California Fish and Game Code Section 1600 et seq.

**Implementing Agency –** California Department of Fish and Game

**Summary –** Under Section 1600 et seq. of the California Fish and Game Code, an entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank, of any river, stream, or lake, or deposit or dispose of debris, waste, or other material where it may pass into any river stream or lake unless the following occur: (1) CDFG receives written notification of the activity in the manner prescribed by CDFG (Lake or Streambed Alteration Notification); (2) CDFG determines the Lake or Streambed Alteration Notification is complete; (3) the entity pays the applicable fees; and (4) CDFG informs the entity that no agreement is required or CDFG determines the activity may substantially adversely affect an existing fish or wildlife resource and issues a final agreement (Lake or Streambed Alteration Agreement (LSAA)) to the entity. A Lake or Streambed Alteration Agreement includes measures necessary to protect the resource and is a legally binding agreement.

**Triggers –** Most, if not all, large wood augmentation projects will require a Lake or Streambed Alternation Agreement. Notification of CDFG is required whenever a project will substantially divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by CDFG in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit. CDFG jurisdiction is also triggered if a project has the potential to affect a state-listed threatened or endangered species. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. This requirement may, in some cases, apply to any work undertaken within the floodplain of a body of water or its tributaries, including intermittent streams and desert washes.

**Processes –** If CDFG determines that the project may have a substantial adverse effect on a fish or wildlife resource, a Lake or Streambed Alteration Agreement that includes measures necessary to protect fish and wildlife will be developed in coordination with CDFG and the project applicant for project activities. CDFG has developed a notification form and instructions for project applicants that walks the applicant through the notification/application process. Notification materials include the following:

- A description of the process you need to complete to notify the Department and obtain a Lake or Streambed Alteration Agreement;
- Notification of Lake or Streambed Alteration form and instructions to complete it;
- A copy of the fee schedule that lists the fees you need to submit with your complete notification package and information regarding other charges that may apply to your project; and

- Questions and answers regarding the notification and agreement process

Note: If there is potential for the LWM project to take[52] a non-salmonid state listed species (e.g., a state listed rare plant), then you will need to disclose that on your Lake or Streambed Alteration Notification, and take avoidance measures can be determined through the LSAA permit process, or CDFG can help obtain incidental take coverage through the California Endangered Species Act (See Section III.C below). Note: You will need to provide information in your Lake or Streambed Alteration Notification about the presence or absence of historic resources so that CDFG may determine whether a formal consultation under Section 106 of the National Historic Preservation Act is needed (see Section II.D for more information).

The Lake or Streambed Alteration Notification and additional information can be found at: http://www.dfg.ca.gov/habcon/1600/forms.html.

**Who to contact with questions –** Contact your regional CDFG office.

Northern Region (Mendocino County) - 707-445-6493

San Francisco Bay Region (Napa, Sonoma, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, Santa Cruz, San Francisco Counties) - 707-944-5500

### B. California Environmental Quality Act

**Implementing Agency –** various state agencies (California Department of Fish and Game, Regional Water Quality Control Boards, California Department of Forestry and Fire Protection)

**Summary –** The California Environmental Quality Act's main objectives are to disclose to decision makers and the public the significant environmental effects of proposed activities and to require agencies to avoid or reduce the environmental effects by implementing feasible alternatives or mitigation measures. CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies, including state, regional, county, and local agencies, unless a statutory exemption applies. There is one commonly used statutory exemption that may apply to large wood augmentation projects (see below). CEQA applies to all private actions that require discretional governmental approvals.

There are four distinct roles that a governmental agency can play in the CEQA review process, each with its own set of responsibilities.

[52] Take is defined in the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Because the state definition of "take", unlike the federal definition, does not include harm and harass the threshold for "take" is higher for the state-listed species.

*1. Lead Agency* - The lead agency is the California government agency that has the principal responsibility for carrying out or approving a project, and therefore is also responsible for preparing the CEQA documents. For most large wood augmentation projects California Department of Fish and Game will be the lead agency through the Lake or Streambed Alteration Agreement, though counties may be lead agency in counties with significant local regulation (i.e. Santa Cruz County), and Regional Water Quality Control Boards may also serve as lead agency. CAL FIRE serves as the lead agency in Timber Harvesting Plans. The lead agency is responsible for deciding whether a categorical exemption, a negative declaration or an environmental impact report (EIR) will be required, and for determining the scope and content of that document. The lead agency is required to make changes in a project to lessen or avoid significant impacts when feasible, or to disapprove a project to avoid significant impacts unless the project's benefits outweigh those effects.

*2. Responsible Agency* - A responsible agency is a California governmental agency other than the lead agency that also has a legal responsibility for carrying out or approving a project. A responsible agency must review the lead agency's CEQA document and use the document when making a decision on the project. Responsible agencies for large wood augmentation projects could include either counties, the California Department of Fish and Game, Coastal Commission, or a Regional Water Quality Control Board.

*3. Trustee Agency* - A trustee agency is one having jurisdiction over certain resources held in trust for the people of California, but not having a legal authority over approving or carrying out the project. Four state agencies are designated as trustee agencies: the California Department of Fish and Game; the State Lands Commission; the California Department of Parks and Recreation, with regard to units of the state park system; and the University of California, with regard to sites within the Natural Land and Water Reserves System. Trustee agencies must be notified of CEQA documents relevant to their jurisdiction.

*4. Agencies with Jurisdiction by Law* - When preparing an EIR, the lead agency must consult with and seek input from every public agency that has jurisdiction by law with respect to the project. Although it is unlikely that a large wood augmentation project will necessitate development of EIRs, this class of agencies would include federal agencies such as USFWS, NMFS, and the Corps as well as adjacent municipalities.

The CEQA process also has a public participation component including the scoping process, public notice and public review of CEQA documents, public hearings, and by requiring agencies to respond to public comments in final EIRs.

Each large wood augmentation project must be CEQA-compliant. CDFG or a Regional Water Quality Control Board will likely be the lead CEQA agency for many large wood augmentation projects. In some cases, other local or state agencies could take the lead (i.e., Santa Cruz

County). Many large wood augmentation projects will likely qualify for a CEQA categorical exemption for small habitat restoration projects (CEQA Title 14, Chapter 3, Article 19, Section 15333). To qualify for a 15333 categorical exemption, projects must not exceed five acres in size. Projects must also:

- Have no significant adverse impact on endangered, rare or threatened species or their habitat,[53]
- Have no hazardous materials at or around the project site that may be disturbed or removed, and
- Not result in impacts that are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

For more information on categorical exemption 15333, please refer to:
http://ceres.ca.gov/ceqa/guidelines/15300-15333_web.pdf

**Triggers –** Any project that is either funded, sponsored, or permitted by a state or local agency or could potentially cause direct or indirect physical change to the environment (change hydrology, runoff patterns, erosion, channel form, etc.) is subject to CEQA compliance. In short, all large wood augmentation projects will be subject to CEQA compliance.

**Processes –** In its most simplistic form, the CEQA process has three fundamental phases: conducting a preliminary environmental review; preparation of an Initial Study (IS); and preparation of either a Negative Declaration (Neg Dec), Environmental Impact Report (EIR) or a Timber Harvesting Plan (THP).

For large wood augmentation projects, the preliminary review period will focus on the potential for an individual project to be subject to a categorical exemption. As previously mentioned, most large wood augmentation projects will qualify for a small habitat restoration project categorical exemption (Cat Ex 15333). The major challenge in using this exemption is that the project disturbance area may not exceed five acres in size.[54] It should be noted that multiple smaller projects in the same general area may cumulatively result in a project disturbance area that exceeds the five acre limit.

If Cat Ex 15333 is not applicable, the project proponent will need to complete an IS or a joint IS-Neg Dec and circulate it to all responsible agencies and appropriate trustee agencies. If using an IS, findings of the IS will determine how the lead agency proceeds into the third phase.

[53] Despite the potential for some short-term negative impacts, many small habitat restoration projects (including LWM projects) under 5 acres in size will qualify for CEQA Cat Ex 15333. The drafters of CEQA Cat Ex 15333 said: "A categorical exemption only works if there is no reasonable possibility of a significant adverse effect on the environment, meaning adverse physical change of disturbance. While small scale restoration projects may involve short term disturbance, their impacts are inherently 'self mitigated' to a level below the threshold of significance because the project is designed precisely to make a transition to improved watershed or habitat condition for conservation purposes" (State of California Resources Agency 2002).
[54] See Appendix 1 for suggested methods for calculating disturbance acreage.

If the project (or construction of the project) will cause significant environmental impacts that cannot be mitigated by changes in the project design or implementation, the project may require an EIR. This is unlikely for most wood augmentation projects. If there are no potential significant impacts or impacts can be reduced to a less than significant level by altering the project design or implementation, the lead agency will produce a Neg Dec or a Mitigated Neg Dec in order to comply with CEQA.

In the future, under Section V of the Anadromous Salmonid Protection Rules of the California Forest Practice Rules (14 CCR § 916.9 [936.9, 956.9](v)), a timber harvesting plan may also serve as the CEQA document for wood augmentation projects.

The project proponent should be in contact with the lead agency to ensure that all appropriate supporting materials and fees are included for approval of CEQA documents. For more detailed information regarding the CEQA process and requirements please refer to the State's CEQA website at http://ceres.ca.gov/ceqa/. For more information on categorical exemption 15333, please refer to: http://ceres.ca.gov/ceqa/guidelines/15300-15333_web.pdf

**Who to contact with questions –** For most large wood augmentation projects, contact your regional CDFG office. In some cases (i.e., Santa Cruz County), the County may be the lead agency and CEQA questions should be directed to them. Regional Water Quality Control Boards can also determine consistency with CEQA 15333.

CDFG Northern Region (Mendocino County) - 707-445-6493

CDFG San Francisco Bay Region (Napa, Sonoma, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, Santa Cruz, San Francisco Counties) - 707-944-5500

You can find out what Regional Board's jurisdiction you lie within at:
http://www.waterboards.ca.gov/waterboards_map.shtml

## C. California Endangered Species Act

### *1. State incidental take coverage for salmonids within the coho salmon CCC ESU*

**Implementing Agency –** California Department of Fish and Game

**Summary –** The California Endangered Species Act (CESA) can be found in Section 2050 et seq in the state Fish and Game Code. Section 2080 of the Fish and Game Code prohibits "take" of any species that the Fish and Game Commission determines to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Because the state definition of take, unlike the federal definition, does not include harm and harass, the threshold for take is higher for the state-listed species. CESA allows for take incidental to otherwise lawful projects (e.g., projects that have all permits and have undergone CEQA analysis). CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats. It should be noted that incidental take permits can be authorized for all listed species except those with fully protected status.[55]

**Triggers –** Any project that requires either CDFG's authorization (e.g., Lake or Streambed Alteration Agreement) or a discretionary permit triggering CEQA will be required to address potential impacts to state listed species (threatened, endangered, or candidate species), or fully protected species. Any lawful activity that will result in the take of a state-listed threatened, endangered, or candidate species will require incidental take authorization from CDFG. Take cannot be authorized for fully protected species. See the following CDFG website for a full listing of state listed animal species http://www.dfg.ca.gov/wildlife/nongame/list.html, including listed salmonids.

**Processes –** When notifying CDFG of Lake or Streambed Alteration make sure to note the presence of state or federally listed species. Take avoidance measures can sometimes be determined through the LSAA process, and in the event that a large wood augmentation project could result in take of a species listed as threatened or endangered under CESA, CDFG can authorize an incidental take permit.

Since all salmonid species state listed as threatened or endangered in the coho salmon ESU are also listed by the United States Endangered Species Act (ESA), the project applicant will need to obtain a federal take permit, if potential for take exists. When a federal take permit is acquired, CDFG may not require an additional state permit for take of listed salmonids. But CESA Sec. 2080.1 (c) does require CDFG to review the terms and conditions of the ESA permit to ensure that they meet CESA's requirements (i.e., Consistency Determination process). Projects within the coho salmon CCC ESU will be covered under an existing consistency determination - CDFG's Consistency Determination (CD) for Permitting of Fisheries Restoration

[55] See http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html for a list of fully protected animals.

Projects within the Geographic Boundaries of the National Marine Fisheries Service's (NMFS) Santa Rosa, California field office, (CD No. 2080-2006-021-03) which CDFG issued on September 28, 2006. In issuing that CD, CDFG determined that NMFS Biological Opinion No. 151422SWR2006SR00190:JMA was consistent with CESA pursuant to Fish and Game Code 2081.1 when individual projects are found by NMFS to have met the criteria for coverage under the Biological Opinion (see Section II.C.1). When submitting a Lake or Streambed Alteration Notification, make sure that CDFG representatives know of the presence of ESA listed salmonid species, if present, and request in writing a consistency determination. Coverage by this consistency determination will provide state incidental take coverage for state listed salmonid species within the project boundaries.

**Who to contact with questions –** Contact your regional CDFG office.

Northern Region (Mendocino County) - 707-445-6493

San Francisco Bay Region (Napa, Sonoma, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, Santa Cruz, San Francisco Counties) - 707-944-5500

*2. State incidental take coverage for other state listed species*

**Implementing Agency –** California Department of Fish and Game

**Summary –** The California Endangered Species Act (CESA) can be found in Section 2050 et seq in the state Fish and Game Code. Section 2080 of the Fish and Game Code prohibits "take" of any species that the Fish and Game Commission determines to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Because the state definition of take, unlike the federal definition, does not include harm and harass the threshold for take is higher for the state-listed species. CESA allows for take incidental to otherwise lawful projects (e.g., projects that have all permits and have undergone CEQA analysis). CDFG emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats. In addition to CESA, there are a number of other Fish and Game Code sections that regulate take of species; these include the Native Plant Protection Act and species with the designation of state fully protected.[56] It should be noted that incidental take permits can be authorized for all listed species except those with fully protected status.

**Triggers –** Any project that requires either CDFG's authorization (e.g., Lake or Streambed Alteration Agreement) or a discretionary permit triggering CEQA will be required to address potential impacts to state-listed special status species (threatened, endangered, candidate, or fully protected). Any lawful activity that will result in the take of a state-listed threatened,

[56] Fully protected animals can be found at: http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html. Listed plants can be found at: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf.

endangered, or candidate species will require incidental take authorization from CDFG. Take cannot be authorized for fully protected species. See the following CDFG websites for a full listing of listed animal and plant species:http://www.dfg.ca.gov/wildlife/nongame/list.html, and http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf.

**Processes –** When notifying CDFG of Lake or Streambed Alteration make sure to note the presence of state or federally listed species. Take avoidance measures can sometimes be determined through the LSAA process, and in the event that a large wood augmentation project will result in take of a species listed as threatened or endangered under CESA, CDFG can authorize an incidental take permit. Sections 2081 of the California Code of Regulations (CCR) allow CDFG to issue an incidental take permit for a State-listed threatened and endangered species only if specific criteria are met. Criteria are reiterated in Title 14 CCR, Sections 783.4(a) and (b), and are as follows:

- The authorized take is incidental to an otherwise lawful activity;
- The impacts of the authorized take are minimized and fully mitigated;
- The measures required to minimize and fully mitigate the impacts of the authorized take:
    - are roughly proportional in extent to the impact of the taking on the species,
    - maintain the applicant's objectives to the greatest extent possible, and
    - are capable of successful implementation;
- Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and
- Issuance of the permit will not jeopardize the continued existence of a State-listed species.

Alternatively, if a species is listed as threatened or endangered by both the CESA and the United States Endangered Species Act and the project applicant obtains a federal take permit, the applicant may request the Director of CDFG to issue a Consistency Determination pursuant to Fish and Game Code section 2080.1 (rather than obtaining an additional state permit). When submitting a Lake or Streambed Alteration Notification, make sure that CDFG representatives know of the presence of ESA listed species, if present, and request in writing a consistency determination if appropriate.

The project applicant will need to work with CDFG to ensure that all materials and fees are included when the application is submitted. For additional information, visit: http://www.dfg.ca.gov/habcon/cesa/.

The take of California "Fully Protected" species cannot be authorized with a CESA Incidental Take Permit or Consistency Determination unless the project is solely for the purpose of recovery of that species.

**Who to contact with questions –** Contact your regional CDFG office.

Northern Region (Mendocino County) - 707-445-6493

San Francisco Bay Region (Napa, Sonoma, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, Santa Cruz, San Francisco Counties) - 707-944-5500

### D. California Coastal Act of 1976

**Implementing Agency –** California Coastal Commission or Certified Local Coastal Program

**Summary –** In the CCC ESU, if a project is located within the Coastal Zone and involves any land "development," it will most likely require a Coastal Zone Development Permit (CZDP) in order to comply with the Coastal Act. The Coastal Commission, in partnership with coastal cities and counties, implements the Coastal Act, and plans and regulates the use of land and water in the Coastal Zone. Development activities include construction of buildings or structures, divisions of land, grading, placing or removing earth material, harvesting of vegetation, and activities that change the intensity of use of land or public access to coastal waters, among others. The Coastal Zone varies in width from several hundred feet in highly urbanized areas up to five miles in certain rural areas, and offshore, the coastal zone includes a three-mile-wide band of ocean. The coastal zone does not include San Francisco Bay, where development is regulated by the Bay Conservation and Development Commission. California's coastal management program is carried out through a partnership between state and local governments. Implementation of the Coastal Act is completed primarily through the development of local coastal programs (LCPs) in each of the 15 counties and 60 cities located in whole or in part in the coastal zone. Development within the coastal zone cannot start until a CZDP has been issued by either the Commission or a local government that has a Commission-certified LCP. In certified LCPs, CZDP authority is delegated to the appropriate local government. The Commission retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands).

**Triggers –** If a large wood augmentation project will take place within the Coastal Zone,[57] it is likely that a Coastal Zone Development Permit will be needed. Permit triggers include:

- Construction, reconstruction, size alteration, or demolition of a structure
- Grading, removing, placement, and extraction of any earth material
- Subdivision and minor land division
- Change in the density or intensity of land use
- Harvesting of major vegetation, except for agriculture and timber harvesting

**Processes –** In order to obtain a CZDP, a project proponent first needs to determine the appropriate implementing agency. If a certified LCP exists in the project area, the agency that manages the LCP will handle issuing necessary permits.[58] If a LCP has not been certified yet in

[57] See http://www.coastal.ca.gov/lcps.html for maps of the Coastal Zone.
[58] See http://www.coastal.ca.gov/lcps.html to determine whether an LCP exists in your area.

the project area, then the Coastal Commission retains jurisdiction. Each LCP has its own unique application forms and regulatory requirements. For permit approval, the project must meet the design criteria and use standards of the particular zone district and Local Coastal Land Use Plan. Projects must also meet the Coastal Zone Design Criteria.

In most cases, the project proponent will need to acquire an individual CZDP. However, if the project is covered under a Partners in Restoration (PIR) Permit Coordination Program (see Section V.B), then a programmatic CZDP or exemption may be applicable.

Note that while the California Department of Fish and Game Fisheries Restoration Grant Program (FRGP) provides permit coverage for most necessary permits, it does not provide CZDPs. FRGP will fund projects in the Coastal Zone, but the project proponent is responsible for acquiring their own individual CZDP, if necessary. The project proponent may seek funding through FRGP for the cost of acquiring a CZDP permit.

**Who to contact with questions –** To determine the status of an LCP in any given geographic area, contact the appropriate district office of the Coastal Commission (see http://www.coastal.ca.gov/address.html). The agency implementing the LCP will be able to answer questions and provide necessary application materials.

## IV. Local or County Ordinances

There are a number of county or city ordinances that may apply to large wood augmentation projects in the CCC ESU. Local ordinances which may apply to wood augmentation projects include erosion control, riparian corridor and wetland protection, and flood control ordinances, among others. Check with your local county planning department, and municipal planning department, if applicable, to determine what local permits may be needed.

Mendocino County - http://www.co.mendocino.ca.us/planning/

Sonoma County - http://www.sonoma-county.org/prmd/

Napa County - http://www.countyofnapa.org/CDP/

Marin County - http://www.co.marin.ca.us/depts/CD/Main/index.cfm

San Mateo County - http://www.co.sanmateo.ca.us/portal/site/planning

Alameda County - http://www.acgov.org/cda/planning/

Santa Clara County - http://www.sccplanning.org/portal/site/planning

Santa Cruz County - http://www.sccoplanning.com/

## V. Bundled Permitting Options

There are two programs within the CCC ESU that provide significant support in acquiring necessary permits (and sometimes funding as well) to implement large wood augmentation projects: the California Department of Fish and Game Fisheries Restoration Grant Program, and the Partners in Restoration Permit Coordination Program.

### A. California Department of Fish and Game Fisheries Restoration Grant Program

The California Department of Fish and Game (CDFG) Fisheries Restoration Grant Program was established in 1981 in response to rapidly declining populations of wild salmon and steelhead trout and deteriorating fish habitat in California. This competitive grant program supports projects that restore, enhance, or protect anadromous salmonid habitat in the coastal watersheds of California. The projects range from sediment reduction to watershed education, and FRGP often funds large wood augmentation projects. One of the additional benefits of receiving funding for a restoration project under FRGP is that most permitting will be handled by CDFG themselves, relieving the project proponent of the responsibility. CDFG have permits with the other relevant regulatory agencies and will often provide coverage for FRGP-funded projects under those permits if projects are implemented according to the California Salmonid Habitat Restoration Manual (Flosi et al. 1998) and adhere to the requirements of the permits.

The project proponent will still need to notify CDFG of Lake or Streambed Alteration and enter into a LSAA. If the project occurs within the Coastal Development Zone, the project proponent will also need to consult with their local county planning department to determine whether or not a Coastal Zone Development Permit is required. If it is required, it will be the project proponent's responsibility to acquire the Coastal Zone Development Permit, though the project proponent may seek funding through FRGP for the cost of acquiring a Coastal Zone Development Permit.

Eligible entities for FRGP grants are limited to public agencies, Native American Indian Tribes, and nonprofit organizations. Grant proposals from private individuals or for-profit enterprises will not be accepted, but private individuals and for-profit enterprises interested in submitting restoration proposals can partner with a public agency, nonprofit organization, or Native American Indian Tribe to submit an application.

No project that is a required mitigation under the California Environmental Quality Act, the California Endangered Species Act, or the National Environmental Policy Act, the California Forest Practices Act or Section 404 of the Clean Water Act will be considered for funding. For more information see: http://www.dfg.ca.gov/fish/Administration/Grants/FRGP/index.asp, and http://www.dfg.ca.gov/fish/Administration/Grants/FRGP/RegionalSupport.asp.

Contact your regional CDFG FRGP representative with questions: http://www.dfg.ca.gov/fish/Administration/Grants/FRGP/RegionalSupport.asp.

## B. Partners in Restoration Permit Coordination Programs

The Natural Resources Conservation Service (NRCS), local Resource Conservation Districts (RCD), and Sustainable Conservation have collaborated to develop coordination programs in coastal California, called Partners in Restoration (PIR) Permit Coordination Programs. There are several of these countywide or watershed-wide programs in the coho salmon CCC ESU that provide bundled permits for environmentally beneficial projects. Under the permit coordination programs, regulatory permitting agencies enter into programmatic agreements with the NRCS and local RCDs that cover a set of specific, standardized conservation/restoration practices. The permit coordination programs usually require that landowners follow NRCS designs and specifications[59] for conservation work.[60] To be eligible for participation in a PIR program, a project must fit within a PIR program's stated parameters for size, type, timing window, environmental requirements, etc. If eligible, a landowner works with the RCD and NRCS to plan and design the project, utilize existing programmatic permits, acquire additional necessary permits, and ensure compliance with all environmental protection measures and required permit conditions and performance monitoring and reporting.

PIR programs currently exist in three areas in the CCC ESU – in Santa Cruz County, coastal Marin County, and the Navarro watershed in Mendocino County. An additional PIR program is in development for the whole of Mendocino County.

For general information on PIR programs see http://www.suscon.org/pir/details.php. For more information on the three PIR programs in the CCC ESU:

- Navarro River PIR: http://www.suscon.org/pir/watersheds/navarro.php or call the Mendocino County RCD at 707-462-3664.
- Santa Cruz County PIR: http://www.rcdsantacruz.org/pages/programs/permitting-assistance.php or call the Santa Cruz RCD at 831-464-2950.
- Coastal Marin County PIR: http://marinrcd.org/wpress/?page_id=172 or call the Marin RCD at 415-663-1170.

[59] See http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/alphabetical/ncps

[60] Though some PIR programs also allow restoration practices outlined in the California Salmonid Habitat Restoration Manual (Flosi et al. 1998), and road upgrading practices outlined in Weaver and Hagans (1984).

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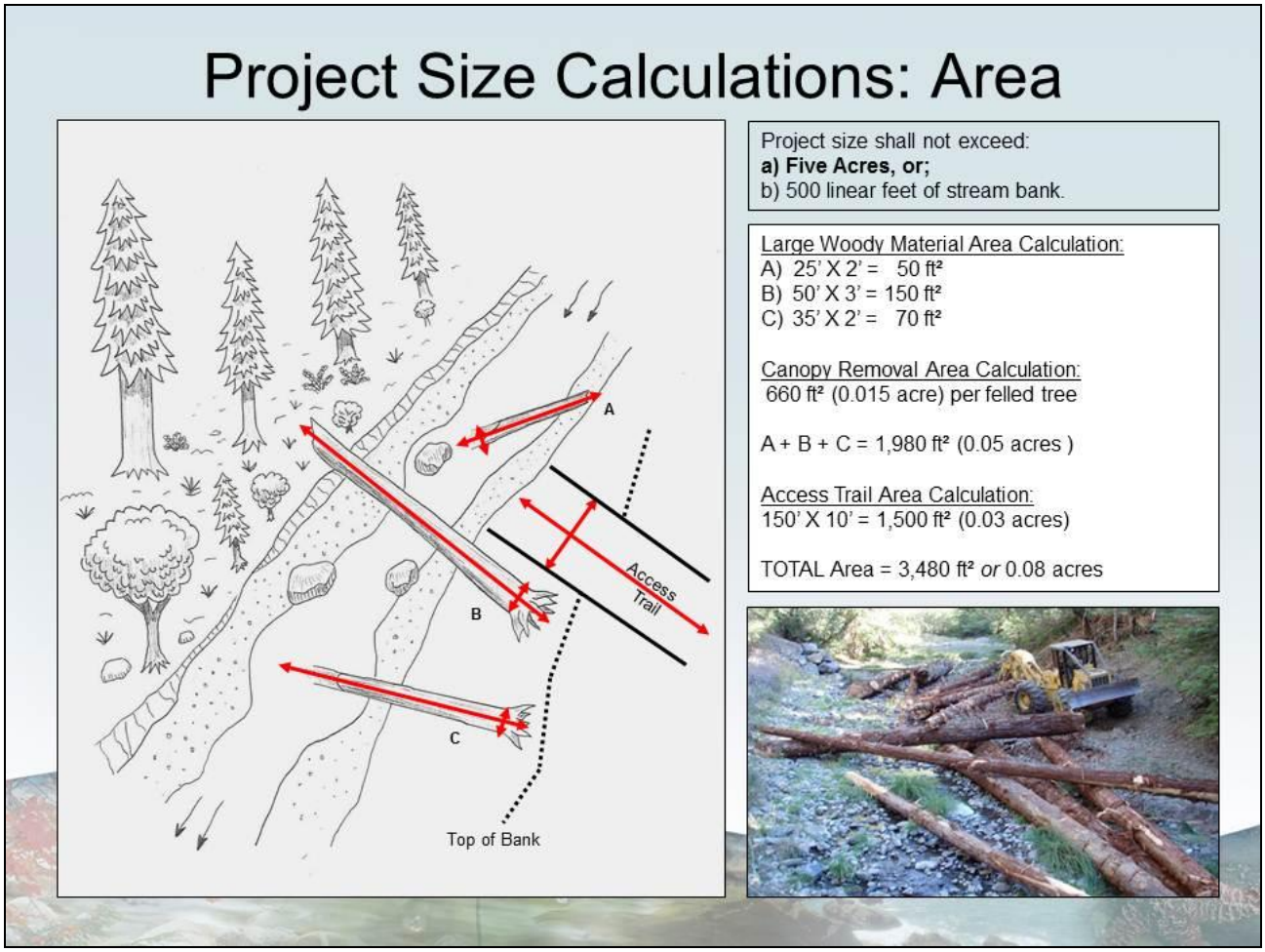
**Appendix 1 – Suggested methods for calculating area of disturbance per California Environmental Quality Act Categorical Exemption 15333 and State Water Resources Control Board *General 401 Water Quality Certification Order for Small Habitat Restoration Projects***

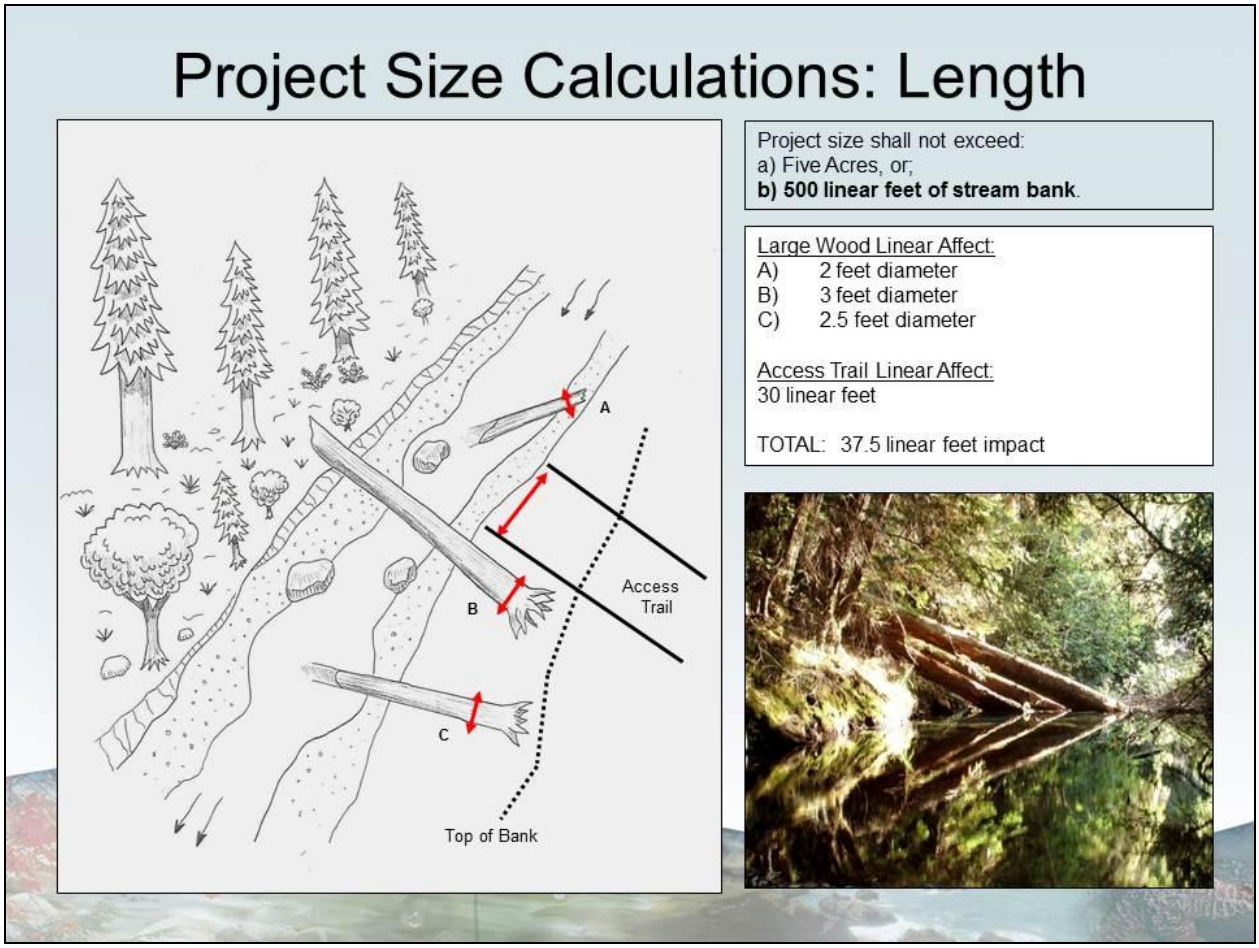



Instructions for calculating large woody material (LWM) project area:

1. Large Woody Material - Area Calculation: Estimate the total area of temporary impact (in square feet and acres) for all LWM that will be introduced into state jurisdictional waters. The area of disturbance for an individual piece of wood is calculated by multiplying the total estimated length times the large-end diameter along the trunk.
2. Canopy Removal - Area Calculation: Estimate the total area affected as a result of canopy removal using an assigned value of 660 ft², or 0.015 acres, per tree that is felled (regardless of location across landscape). Multiply the total number of trees felled by this factor to estimate the total area of disturbance (e.g. 20 trees X 0.015 acres = 0.3 acres)[61].
3. Access Trail - Area Calculation: Estimate the total area of temporary impact (in square feet and acres) from heavy equipment use associated with the project.

Note: The total area of temporary impact (in square feet and acres) must be equal to, or less than, 5 acres (217,800 sq. feet) to be consistent with the Categorical Exemption 15333 for Small Habitat Restoration Projects.

[61] Estimated canopy removal disturbance based on removal of one 36" diameter breast height coniferous tree per *Largest Crown Width Prediction Models for 53 Species in the Western United States* (W.Bechtold, USDA, 2004).




Project Size Calculations: Length

1. Access Trails: Estimate the total length of temporary impact (in linear feet) from heavy equipment use within jurisdictional state waters. Linear stream bank impacts shall be estimated parallel to the direction of flow. State jurisdictional waters exist anywhere below "top of bank" above which there is not an expectation that waters will reach even during high flood events (e.g. first abandoned floodplain terrace).
2. Large Woody Material: Estimate the total length of temporary project impact (in linear feet) as required by the General 401 Certification, the sum total of the large end diameters of each large wood piece are used to estimate linear stream bank impacts.
3. Include the total sum (in linear feet) of temporary impacts onto the Notice of Intent for use of the General 401 Certification for Small Habitat Restoration Projects.

Note: The total area of temporary impact must be equal to, or less than, 500 linear feet of stream impact to be qualify for coverage under the State Water Resources Control Board's General 401 Certification for Small Habitat Restoration Projects.

*Additional resources for calculating disturbance area, including an excel based calculator may be found at: http://conserveonline.org/workspaces/woodforsalmon/