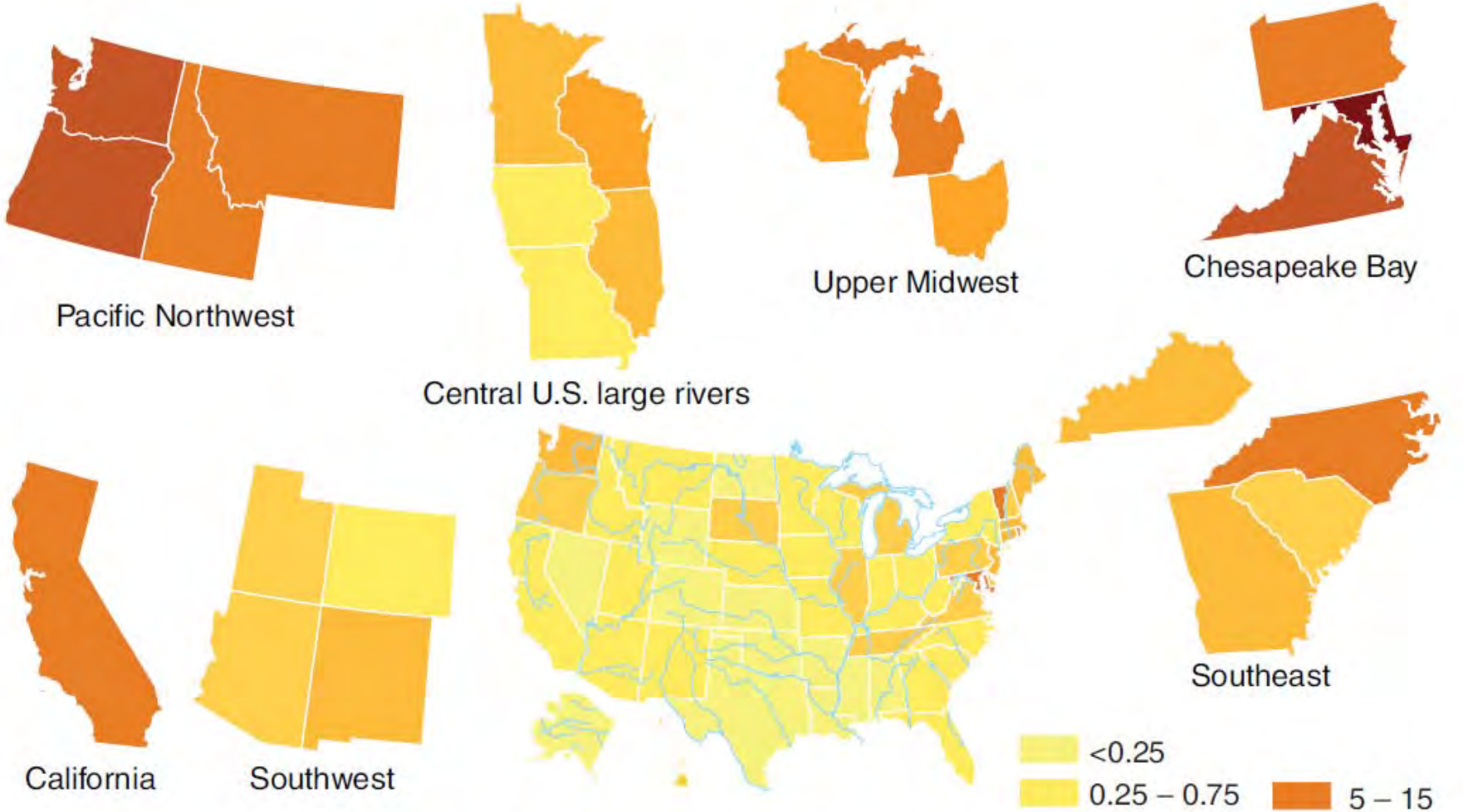
PNW Restoration Programmatics

HIP III / ARBO II / PROJECTS

Provided for informational purposes only. Please refer to the appropriate Biological Opinion for specific information and requirements for each of the referenced Biological Opinions: www.fws.gov/oregonfwo/ToolsForLandowners/OtherResources.asp



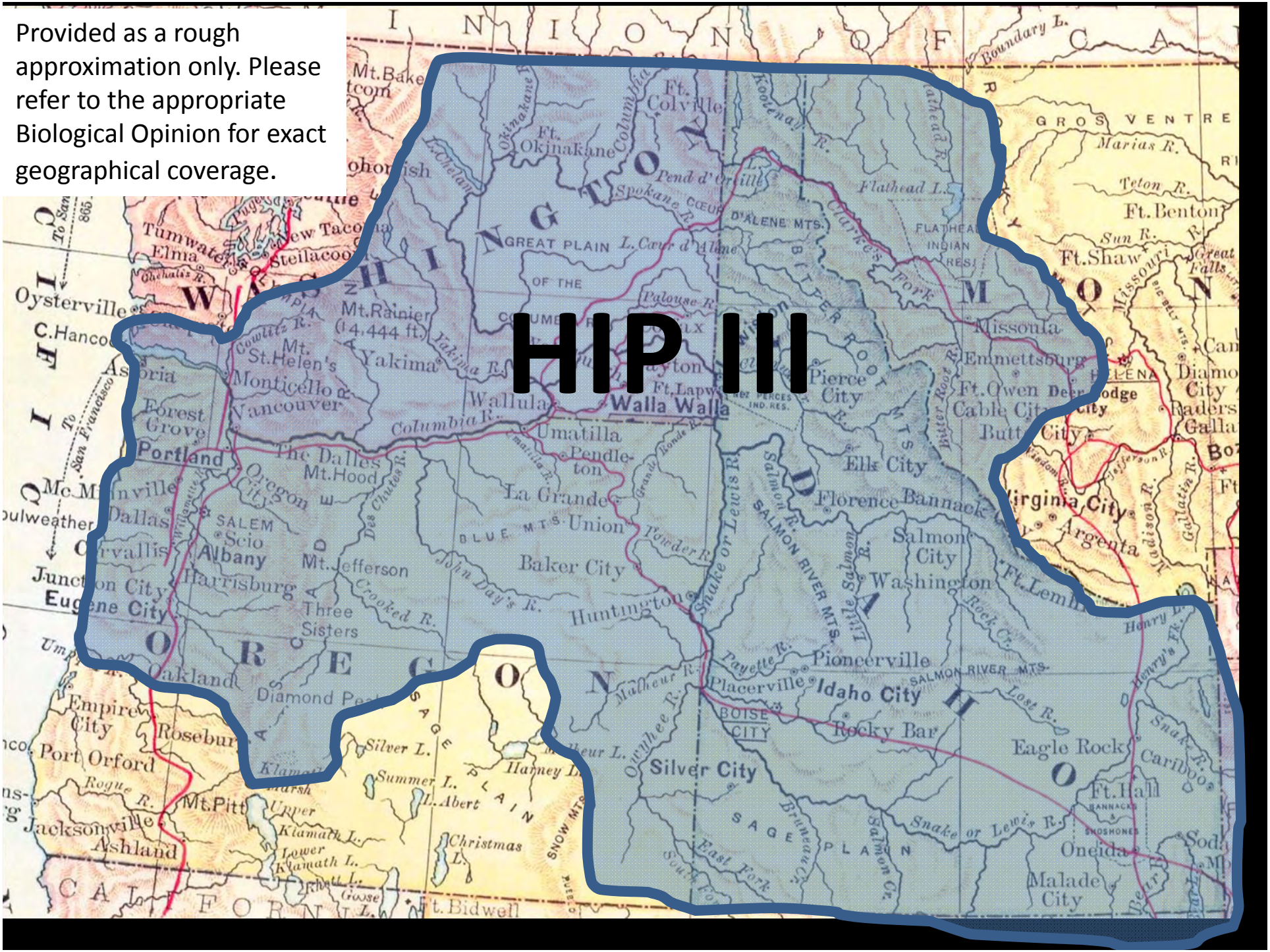
Project density (no. of projects per 1000 river km) from national coverage databases only versus in-depth regional project record summaries (all data sources) [table S1 (*17*) part h].

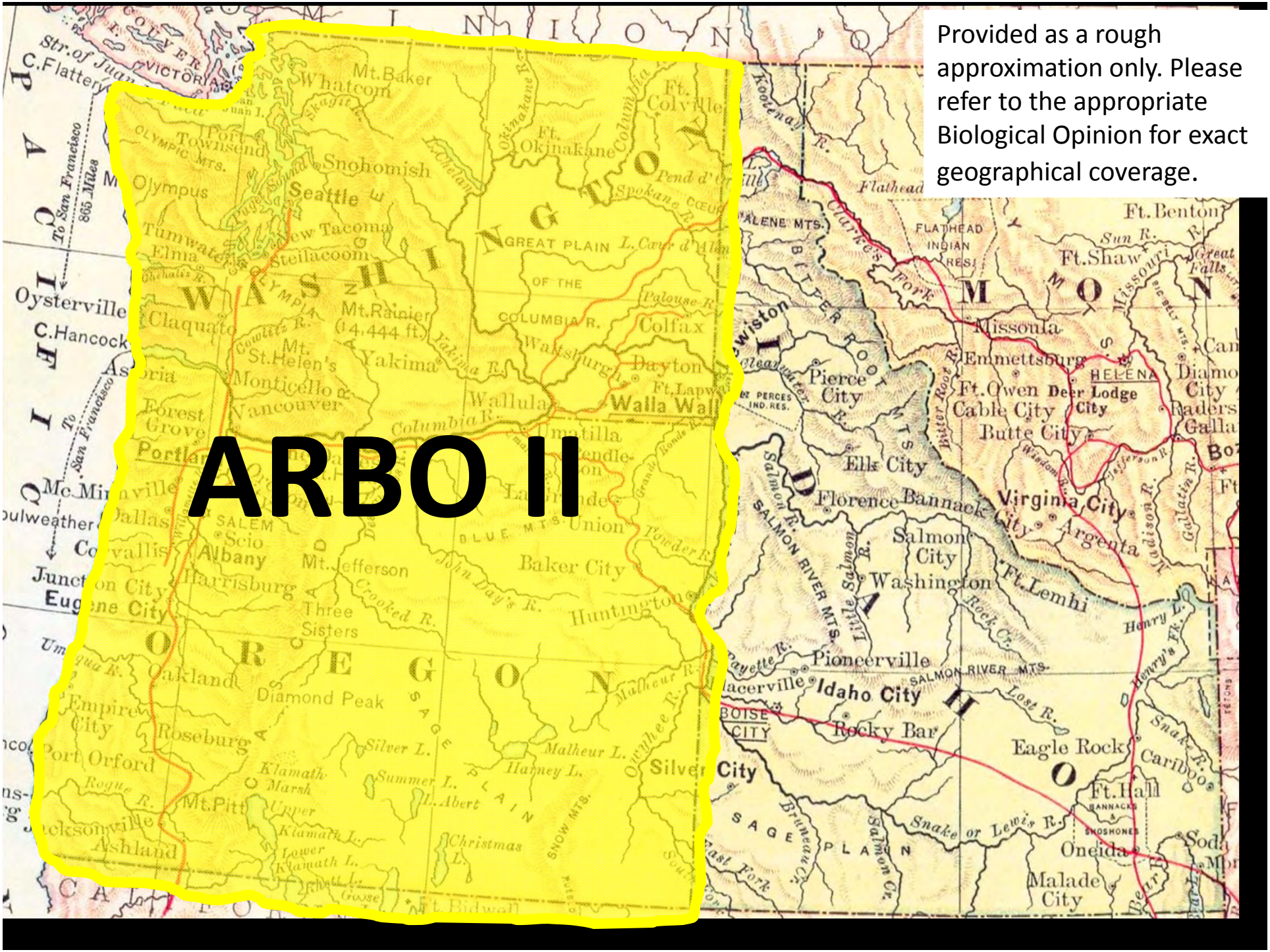
Synthesizing U.S. River Restoration Efforts

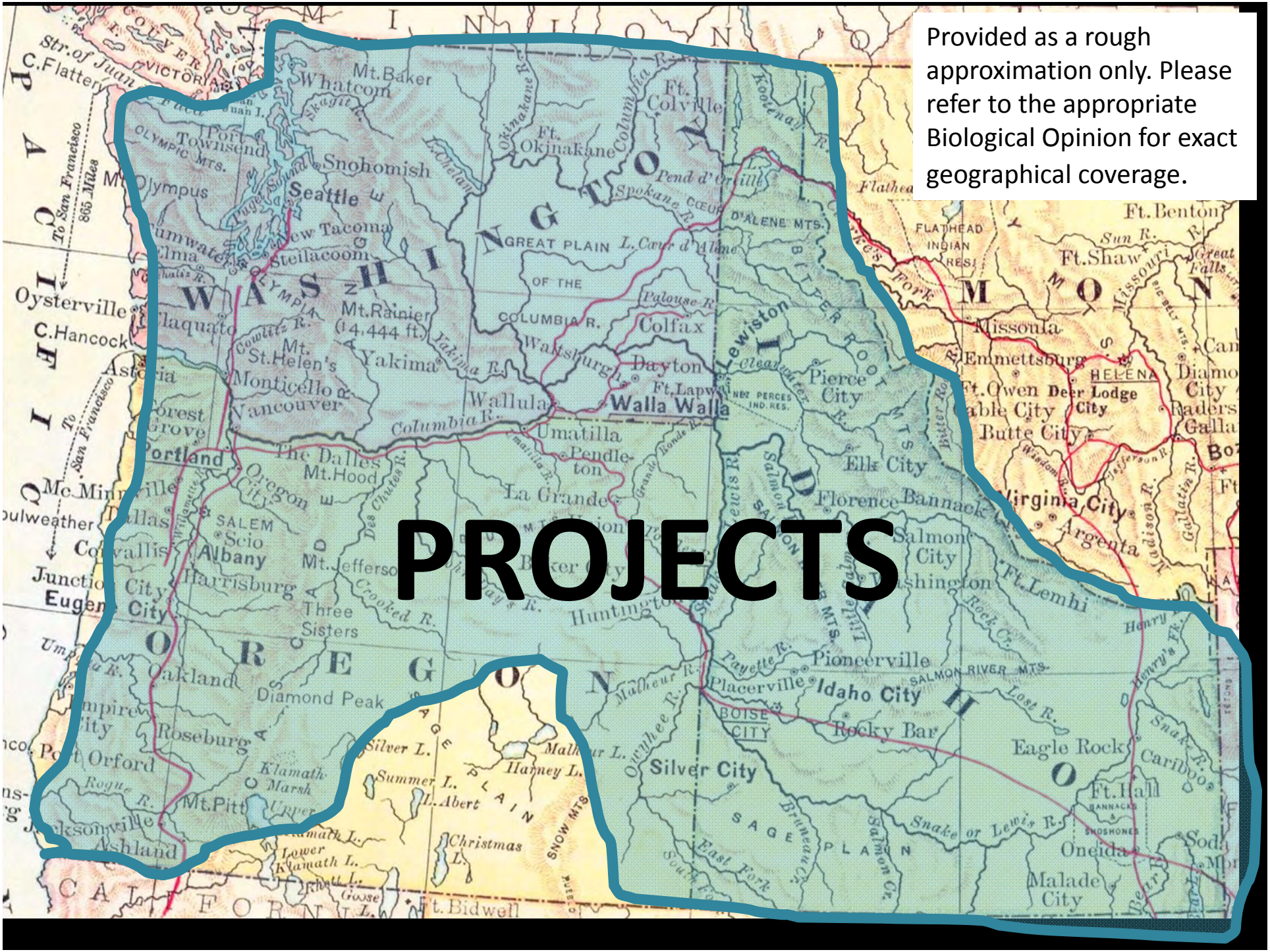
E. S. Bernhardt,[1*†] M. A. Palmer,[1] J. D. Allan,[2] G. Alexander,[2] K. Barnas,[3] S. Brooks,[4] J. Carr,[5] S. Clayton,[6] C. Dahm,[7] J. Follstad-Shah,[7] D. Galat,[8,9] S. Gloss,[10] P. Goodwin,[6] D. Hart,[5] B. Hassett,[1] R. Jenkinson,[11] S. Katz,[3] G. M. Kondolf,[12] P. S. Lake,[4] R. Lave,[12] J. L. Meyer,[13] T. K. O'Donnell,[9] L. Pagano,[12] B. Powell,[14] E. Sudduth[13]

Bernhardt et al., 2005, Science

Provided as a rough approximation only. Please refer to the appropriate Biological Opinion for exact geographical coverage.


HIP III
Portland
Walla Walla
Pendleton
Boise City
Idaho City
Pioneerville
Placerville
Salmon City
Lewiston
Spokane
Missoula
Pierce City
Elk City
Florence
Baker City
La Grande
Union
Huntington
Silver City
Rocky Bar
Eagle Rock
Pocatello
Ft. Hall
Oneida
Malade City
Salem
Albany
Eugene City
Roseburg
Medford
Ashland
Klamath Falls
Bend
Mt. Rainier (14,444 ft.)
Mt. St. Helen's
Mt. Hood
Mt. Jefferson
Three Sisters
Mt. Bakeman
Mt. Pitt
Silver L.
Summer L.
L. Abert
Harney L.
Christmas L.
Goose L.
Upper Klamath L.
Lower Klamath L.
Ft. Bidwell
Ft. Colville
Ft. Okinakane
Ft. Lapwai
Ft. Benton
Ft. Shaw
Ft. Lemhi
Ft. Owen
Virginia City
Argenta
Salmon River Mts.
Bitter Root Mts.
Blue Mts.
Cœur d'Alene Mts.
Great Plain of the Columbia
Sage Plain
Snake or Lewis R.
Columbia R.
Yakima R.
Spokane R.
Clearwater R.
Salmon R.
Boundary L.
Flathead L.
L. Cœur d'Alene
Pend d'Oreille
Gros Ventre
Marias R.
Teton R.
Sun R.
Missouri R.
Great Falls
Helena
Deer Lodge
Butte City
Cable City
Emmettsburg
Diamond City
Radersburg
Galena
Bannack
Salmon City
Washington
Pioneerville
Idaho City
Rocky Bar
Eagle Rock
Malade City
Oneida
Ft. Hall
Bannacks
Shoshones
Silver City
Placerville
Boise City
Baker City
Huntington
Pendleton
Umatilla
Wallula
Yakima
Ellensburg
Cle Elum
Ellensburg
Tacoma
Olympia
Tumwater
Elma
Steilacoom
Oysterville
C. Hancock
Astoria
Forest Grove
Portland
Vancouver
Monticello
Mt. St. Helen's
Mt. Rainier
The Dalles
Mt. Hood
Oregon City
Salem
Scio
Albany
Mt. Jefferson
Harrisburg
Three Sisters
Eugene City
Junction City
Corvallis
Dallas
McMinnville
Oakland
Diamond Peak
Roseburg
Empire City
Port Orford
Jacksonville
Ashland
Mt. Pitt
Klamath L.
Lower Klamath L.
Goose L.
Ft. Bidwell
Christmas L.
Harney L.
Silver L.
Summer L.
L. Abert


ARBO II
Provided as a rough approximation only. Please refer to the appropriate Biological Opinion for exact geographical coverage.
Mt. Baker
Whatcom
Seattle
Snohomish
Olympus
Tacoma
Stellacoom
Mt. Rainier (14,444 ft.)
Yakima
Mt. St. Helen's
Monticello
Vancouver
Portland
Salem
Albany
Scio
Harrisburg
Mt. Jefferson
Three Sisters
Oakland
Roseburg
Diamond Peak
Klamath Marsh
Mt. Pitt
Ashland
Silver L.
Summer L.
Abert L.
Malheur L.
Harney L.
Christmas L.
Silver City
Baker City
Huntington
Union
Walla Walla
Dayton
Colfax
Pullman
Spokane
Ft. Colville
Ft. Okinakane
Pend d'Oreille
GREAT PLAIN OF THE COLUMBIA R.
SAGE PLAIN
SNOW MTS.
BLUE MTS.
Oysterville
C. Hancock
C. Flattery
Str. of Juan
VICTORIA
To San Francisco 865 Miles
Flathead
Kootenai R.
Clark's Fork
Ft. Benton
Ft. Shaw
Missoula
Emmettsburg
Ft. Owen
Deer Lodge City
HELENA
Cable City
Butte City
Pierce City
Elk City
Florence
Bannack City
Virginia City
Argenta
Salmon City
Washington
Ft. Lemhi
Pioneerville
Idaho City
Rocky Bar
Eagle Rock
Ft. Hall
Oneida
Malade City
Snake or Lewis R.
SALMON RIVER MTS.
BITTER ROOT MTS.
FLATHEAD INDIAN RES.
NEZ PERCES IND. RES.
BOISE CITY
Lewiston
Missouri R.
Great Falls
Sun R.
Madison R.
Gallatin R.
Henry's Fk.
Henry L.
Lost R.
Snake R.
Caribou
Salmon R.
Little Salmon R.
Rock Cr.
Bruneau Cr.
Salmon Cr.
East Fork
Malade R.
Bear R.
Sodaville
Bozeman
Galla
Diamond City
Radersburg
Can


PROJECTS
Provided as a rough approximation only. Please refer to the appropriate Biological Opinion for exact geographical coverage.
Seattle
Tacoma
Olympia
Spokane
Walla Walla
Lewiston
Portland
Salem
Eugene
Boise City
Idaho City
Silver City
Missoula
Helena
Butte City
Pocatello
Mt. Rainier (14,444 ft.)
Mt. St. Helen's
Mt. Hood
Mt. Jefferson
Mt. Baker
Columbia R.
Snake or Lewis R.
Great Plain of the Columbia R.
Sage Plain
Salmon River Mts.
Bitter Root Mts.
Cœur d'Alene Mts.
Flathead Indian Res.
Nez Perces Ind. Res.
Bannacks & Shoshones

Biological Opinion Development & Activity Categories

A Little Background

- **HIP** – **H**abitat **I**mprovement **P**rogram (2013)
  - Action Agency: Bonneville Power Administration

- **ARBO** – **A**quatic **R**estoration **B**i**O**p (2013)
  - Action Agencies: BLM, USFS, BIA, Coquille Tribe

- **PROJECTS** – **P**rogrammatic **R**estoration **O**pinion for **J**oint **E**cosystem **C**onservation by **T**he **S**ervices (2014)
  - Action agency: USFWS BO and NOAA Restoration Center

Programmatic Commonalities

- FWS/NMFS joint process -- mirrored BOs
- Aquatic (mostly) driven programmatics
- Reinitiations for HIP (III) and ARBO (II)
  - Added and expanded activity categories
- Living documents – no BO expiration date
- Similar (but not identical) activity categories
- Similar implementation process

1. Fish Passage

Elk Creek by Amy Horstman

2. Large Wood

3. Legacy Structure Removal

4. Channel Reconstruction/Relocation

Roache Creek by Jeff Jones

5. Off- and Side-Channel Habitat Restoration

Necanicum River by Doug Ray

6. Streambank Restoration

7. Set-Back or Removal of Existing Berms, Dikes, and Levees

Otter Point by Bruce Henderson

8. Reduction/Relocation of Recreation Impacts

9. Livestock Fencing, Stream Crossings and Off-Channel Livestock Watering

10. Piling and other Structure Removal

11. In-channel Nutrient Enhancement

12. Road and Trail Erosion Control and Decommissioning

13. Non-Native Invasive Plant Control

14. Juniper Removal

15. Riparian Vegetation Treatment (controlled burning)

Wikipedia.org

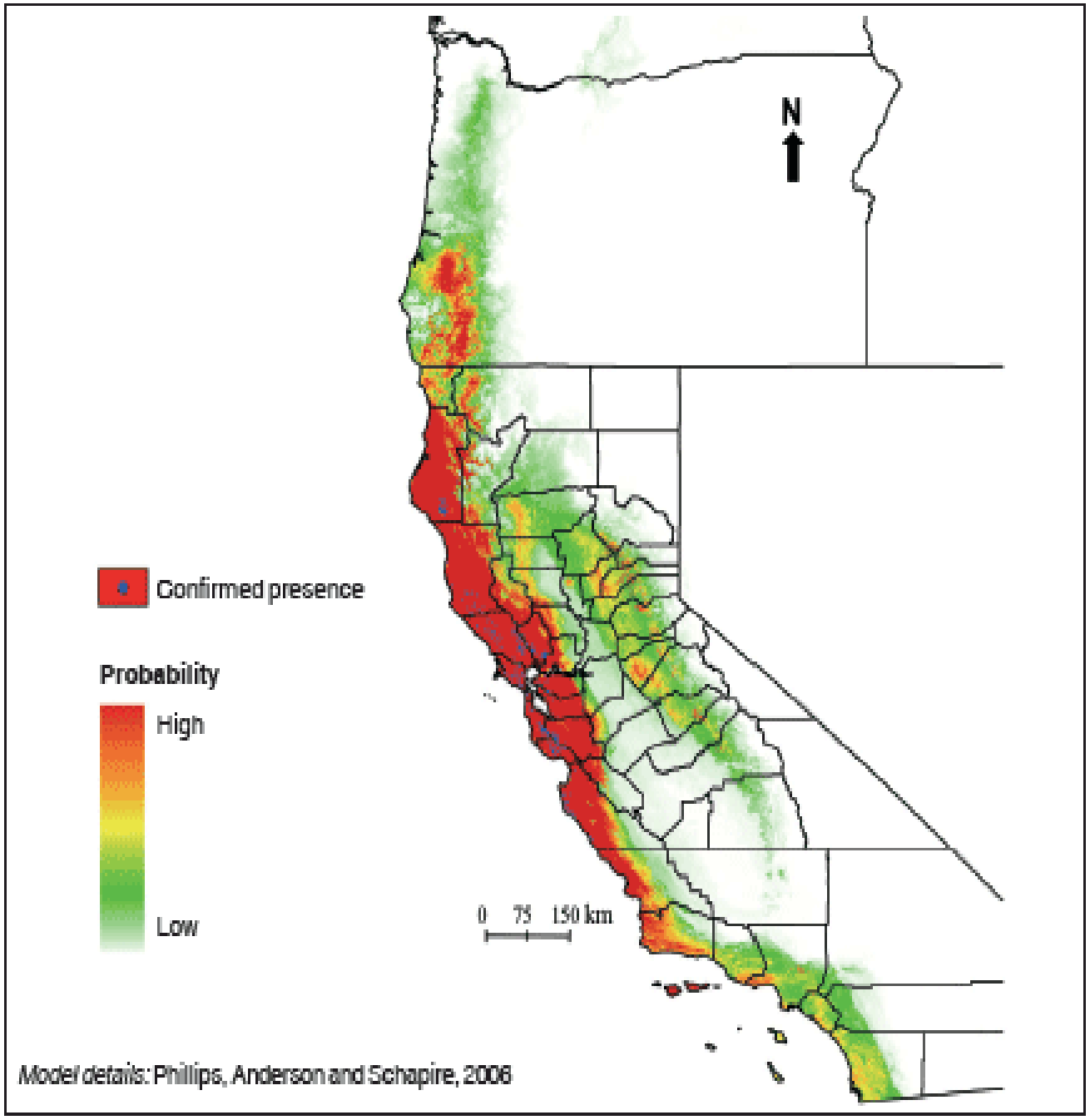
16. Riparian Vegetative Planting

17. Bull Trout Protection

[redacted]

18. Beaver Habitat Restoration

19. Sudden Oak Death (SOD) Treatments



20. Fisheries, Hydrology, Geomorphology, Wildlife, Botany, and Cultural Surveys in Support of Aquatic Restoration

21. Shellfish Bed/Nearshore Habitat Restoration

22. Tide/Flood Gate Removal, Replacement, or Retrofit

Basic Activity	PROJECTS	ARBO II	HIP III
Fish Passage	✓	✓	✓
Large Wood	✓	✓	✓
Legacy Structure Removal (dams, tidegates)	✓	✓	✓
Channel Reconstruction/Relocation	✓	✓	✓
Off- and Side-Channel Habitat Restoration	✓	✓	✓
Streambank Restoration	✓	✓	✓
Set-back or Removal of Existing Berms, Dikes, and Levees	✓	✓	✓
Reduction/Relocation of Recreation Impacts	✓	✓	⊘
Livestock Fencing, Stream Crossings and Off-Channel Livestock Watering	✓	✓	✓
Piling and other Structure Removal	✓	✓	✓
In-channel Nutrient Enhancement	✓	✓	✓
Road and Trail Erosion Control and Decommissioning	✓	✓	✓
Non-native Invasive Plant Control	✓	✓	✓
Juniper Removal	✓	✓	⊘
Riparian Vegetation Treatment (controlled burning)	✓	✓	⊘
Riparian Vegetative Planting	✓	✓	✓
Bull Trout Protection	✓	✓	⊘
Beaver Habitat Restoration	✓	✓	⊘
Sudden Oak Death (SOD) Treatments	⊘	✓ (aquatic species only)	⊘
Fisheries, Hydrology, Geomorphology Wildlife, Botany, and Cultural Surveys in Support of Aquatic Restoration	⊘	✓	✓
Shellfish Bed/Nearshore Habitat Restoration	✓	⊘	⊘
Tide/Flood Gate Removal, Replacement, or Retrofit	✓	✓ (removal only)	✓ (removal only)

✓ = Covered Activity ⊘ = Activity Not Covered

Provided for comparative purposes only. Please refer to the appropriate Biological Opinion for exact activity coverage.

EXAMPLE General Conservation Measures

"The activities covered under this consultation are intended to protect and restore fish and wildlife habitat with long-term benefits to ESA-listed species. However, project construction may have short-term adverse effects on ESA-listed species.

To minimize these short-term adverse effects and make them predictable for purposes of programmatic analysis, the following general conservation measures are applicable to all projects."

EXAMPLE Project Design and Site Preparation

1) Climate change.
2) State and Federal Permits.
3) Timing of in-water work.
4) Contaminants.
5) Site layout and flagging.
6) Temporary access roads and paths.
7) Temporary stream crossings.
8) Staging, storage, and stockpile areas.
9) Equipment.
10) Erosion control.
11) Dust abatement.
12) Spill prevention, control, and countermeasures.
13) Invasive species control.

EXAMPLE Construction Conservation Measures

1) Work Area Isolation & Fish Salvage.
    - Step 1: Isolate
    - Step 2: Salvage
    - Step 3: Electrofishing
    - Step 4: Dewater
    - Step 5: Re-watering
    - Step 6: Salvage Notice
2) Fish passage.
3) Construction and discharge water.
4) Minimize time and extent of disturbance.
5) Cessation of work.

EXAMPLE Post-construction Conservation Measures

1) Site restoration.
2) Revegetation.
3) Site access.

Inspections and Monitoring

EXAMPLE Species-Specific Conservation Measures

1.4 General Conservation Measures and Project Design Criteria for All Terrestrial and Fish Species

1. **The following CMs apply to all listed terrestrial species for all programmatic activities:**

a. Aquatic restoration actions will not remove or downgrade suitable habitat (on either public or private land) for any listed terrestrial species.

b. Effects of danger tree removal will be either discountable or insignificant to ESA-listed terrestrial species and their critical habitat.

c. All restoration activities must have the unit's botanist and terrestrial wildlife biologist input/analysis of the project design and their site-specific species assessment to proceed. This includes a plant survey and nest analysis (or survey if deemed appropriate by the unit biologist, and suitable habitat is known to occur within the project prior to project implementation).

d. There will be no disturbance allowed from blasting activities as they are not part of the proposed action.

e. The unit wildlife biologist is responsible for ensuring that the correct effects determination is made for each project. The unit wildlife biologist may increase or decrease disturbance distances according to the best available scientific information and site-specific conditions. Refer to Tables 9-10. For instance, if a known spotted owl site is surveyed to protocol and the owls are determined to be non-nesting, the unit biologist may determine that no disturbance or disruption would occur and lift the associated restrictions on activities within disruption distances during the year of survey.

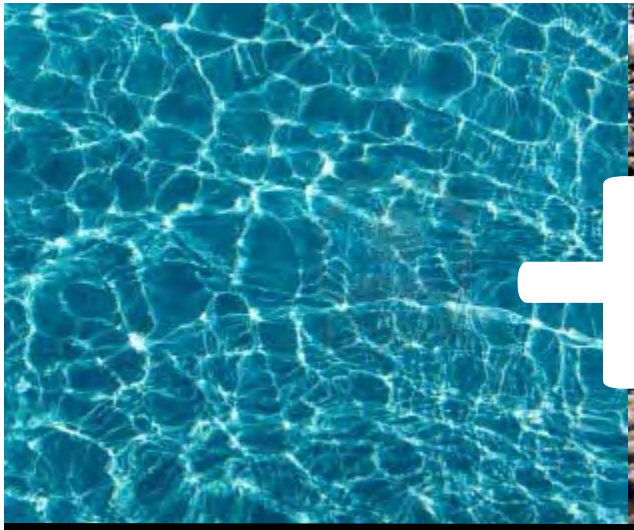
EXAMPLE Species-Specific Conservation Measures

Canada Lynx

i. **CL1:** No active lynx dens are located within 270 yards (based on sight distance and attenuation of sound in forested environments) of a project.
ii. **CL2**: The project will meet the standards and guidelines identified in the Lynx Conservation Assessment and Strategy (LCAS) and are within the LCAS thresholds (suitable, unsuitable, and denning habitat).
iii. **CL3:** The project will not result in increased off-road vehicle access to lynx habitat during or following implementation.

EXAMPLE Project Design Criteria

1. Fish Passage
2. Large Wood
3. Legacy Structure Removal
4. Channel Reconstruction/Relocation
5. Off- and Side-Channel Habitat Restoration
6. Streambank Restoration
7. Set-Back or Removal of Existing Berms, Dikes, and Levees
8. Reduction/Relocation of Recreation Impacts
9. Livestock Fencing, Stream Crossings and Off-Channel Livestock Watering
10. Piling and other Structure Removal
11. In-channel Nutrient Enhancement
12. Road and Trail Erosion Control and Decommissioning
13. Non-native Invasive Plant Control
14. Juniper Removal
15. Riparian Vegetation Treatment (controlled burning)
16. Riparian Vegetative Planting
17. Bull Trout Protection
18. Beaver Habitat Restoration
19. Sudden Oak Death (SOD) Treatments
20. Fisheries, Hydrology, Geomorphology, Wildlife, Botany, and Cultural Surveys in Support of Aquatic Restoration
21. Shellfish Bed/Nearshore Habitat Restoration
22. Tide/Flood Gate Removal, Replacement, Retrofit



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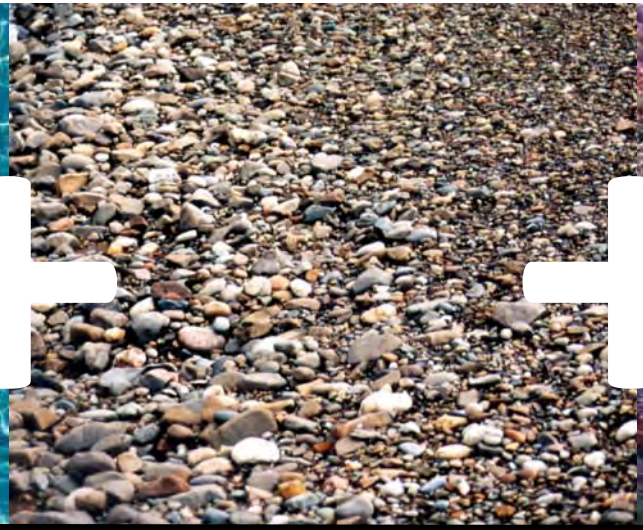

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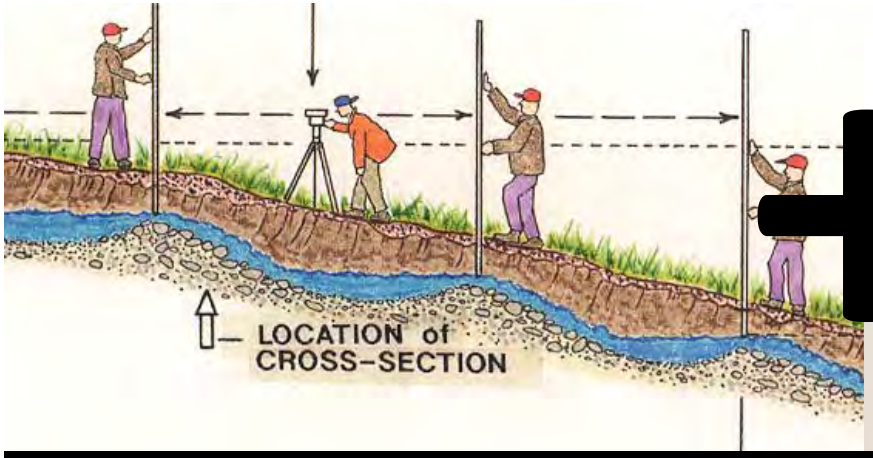

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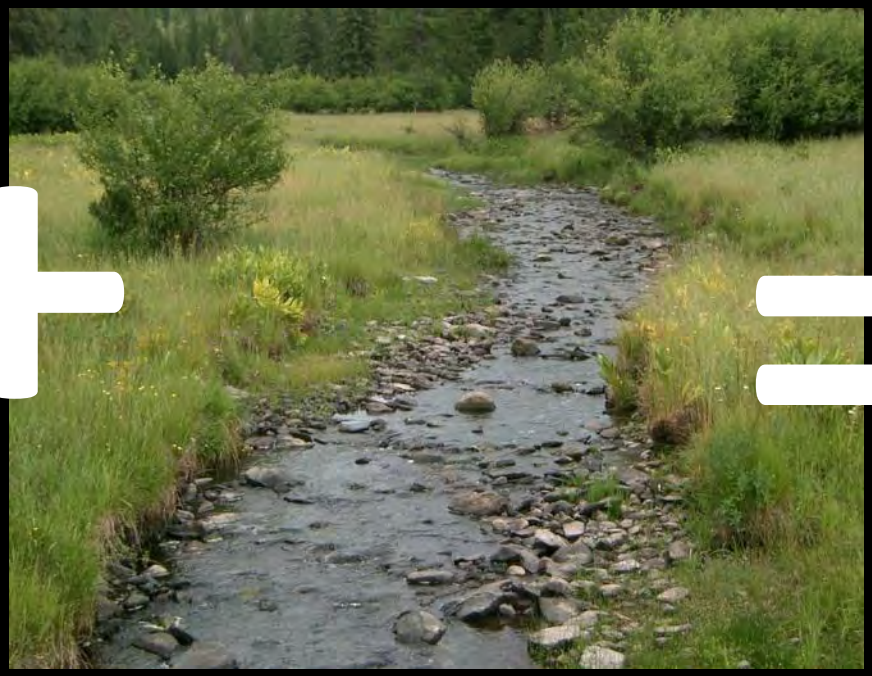

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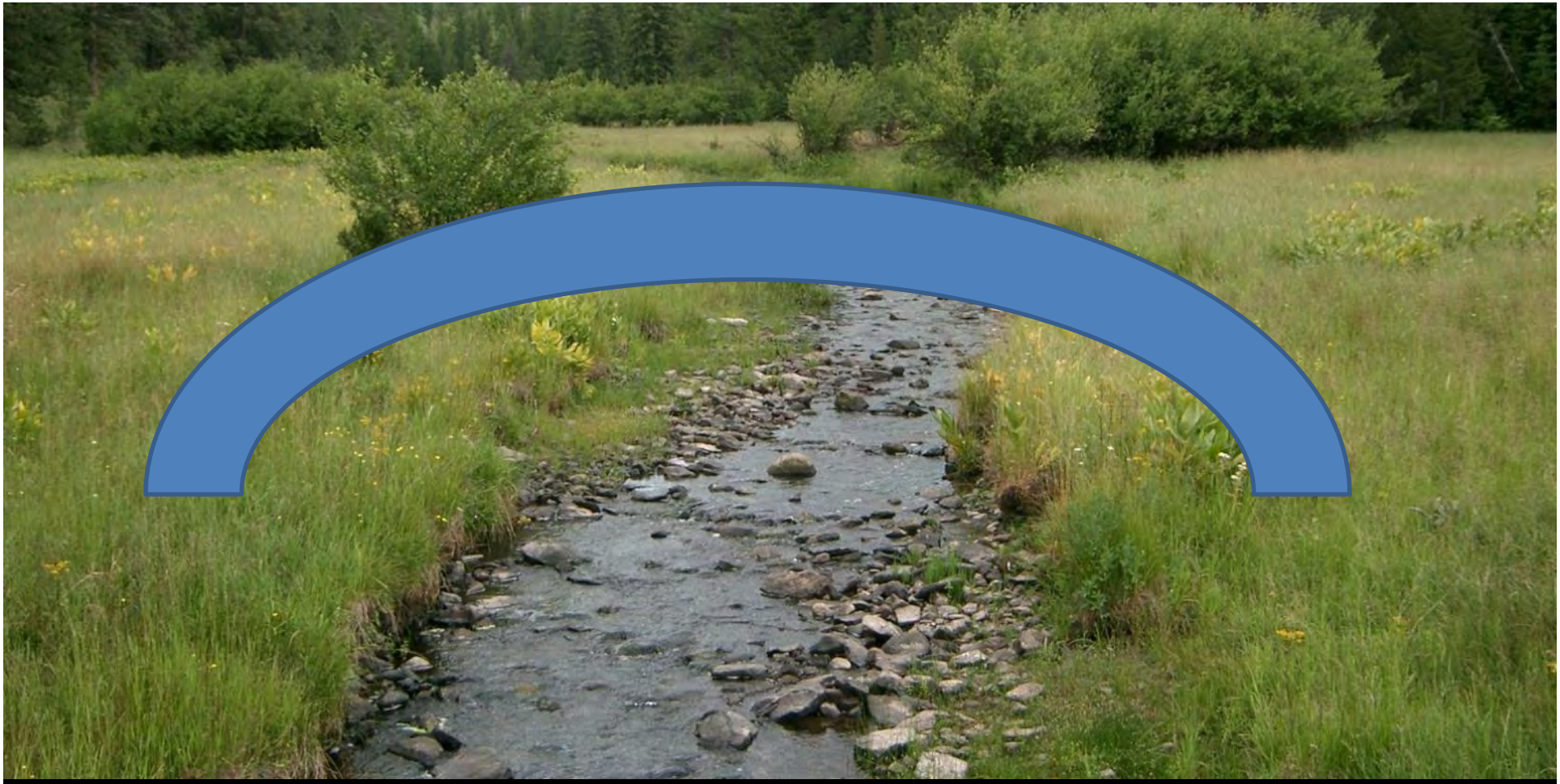
Stream Simulation



EXAMPLE Fish Passage Restoration includes the following: total removal, replacement, or resetting of culverts or bridges; stabilizing headcuts and other channel instabilities; removing, relocating, constructing, repairing, or maintaining fish ladders; and replacing, relocating, or constructing fish screens and irrigation diversions. Such projects will take place where fish passage has been partially or completely eliminated.

Stream simulation culvert and bridge projects. All road-stream crossing structures shall adhere to the most recent version of NMFS fish passage criteria (NMFS 2011a) located at: http://www.nwr.noaa.gov/publications/hydropower/ferc/fish-passage-design.pdf NMFS engineering review, if required, shall occur at the conceptual, post-modeling, and final design phases, which is approximated by 30%, 60%, and 90% designs.

All road-stream crossing structures shall simulate stream channel conditions per industry design standards found in any one of the following:

> *Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings* (USDA-Forest Service 2008) or the most recent version, located at: http://stream.fs.fed.us/fishxing/aop_pdfs.html
>
> *Part XII Fish Passage Design and Implementation, Salmonid Stream Habitat Restoration Manual* (California Department of Fish and Game 2009) or the most recent version, located at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=12512
>
> *Water Crossings Design Guidelines* (Barnard *et al.* 2013) or the most recent version), located at: http://wdfw.wa.gov/publications/01501/

EXAMPLE General road-stream crossing criteria

Span

Span is determined by the crossing width at the proposed streambed grade.

Single span structures will maintain a clear, unobstructed opening above the general scour elevation that is at least as wide as 1.5 times the active channel width.

Multi-span structures will maintain clear, unobstructed openings above the general scour elevation (except for piers or interior bents) that are at least as wide as 2.2 times the active channel width.

Entrenched streams: If a stream is entrenched (entrenchment ratio of less than 1.4), the crossing width will accommodate the floodprone width. Floodprone width is the channel width measured at twice the maximum bankfull depth (Rosgen 1996).

Minimum structure span is 6ft.

Scour Prism

Designs shall maintain the general scour prism, as a clear, unobstructed opening (*i.e.,* free of any fill, embankment, scour countermeasure, or structural material to include abutments, footings, and culvert inverts). No scour or stream stability countermeasure may be applied above the general scour elevation.

When bridge abutments are set back beyond the applicable criteria span they may be located above the general scour elevation.

Embedment

All culvert footings and inverts shall be placed below the thalweg at a depth of 3 feet, or the Lower Vertical Adjustment Potential (LVAP) line, whichever is deeper.

LVAP, as calculated in *Stream Simulation: An ecological approach to providing passage for aquatic organisms at road crossings* (USDA-Forest Service 2008)

Bridges

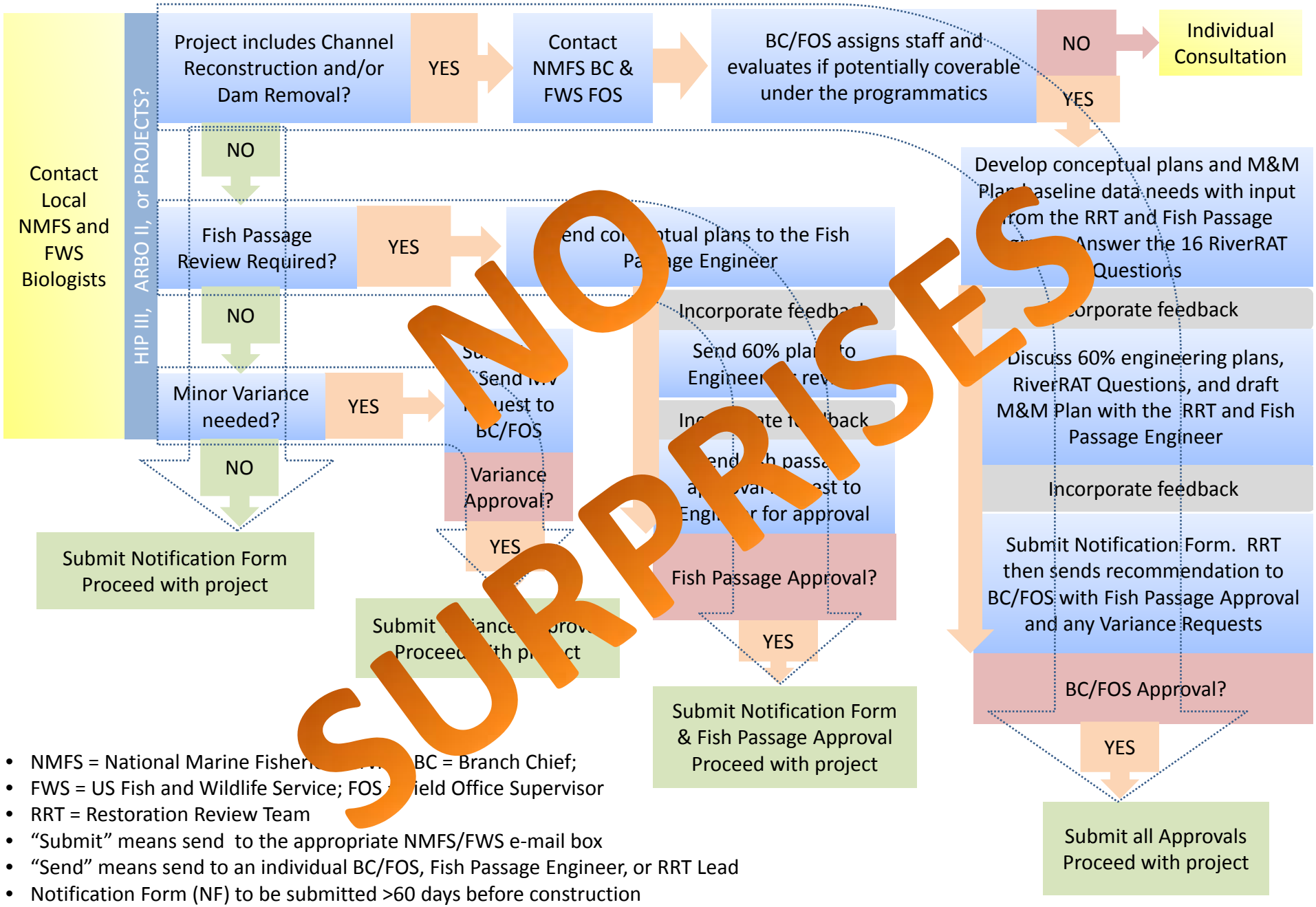
Primary bridge structural elements will be concrete, metal, fiberglass, or untreated timber. The use of treated wood for bridge construction or replacement is not allowed under this opinion. Old railroad cars, which are commonly used as bridges, may have treated wood decking. Sample for the presence of treatment chemicals and replace treated elements with untreated wood.

All concrete will be poured in the dry, or within confined waters not connected to surface waters, and will be allowed to cure a minimum of 7 days before contact with surface water as recommended by Washington State Department of Transportation (2010).

Riprap will not be placed within the bankfull width of the stream. Riprap may only be placed below bankfull height when necessary for protection of abutments and pilings. The amount and placement of riprap will not constrict the bankfull flow.

Temporary work bridges will also meet NMFS (2011a) (or the latest version).

IDEALIZED RESTORATION PROGRAMMATIC REVIEW PROCESS

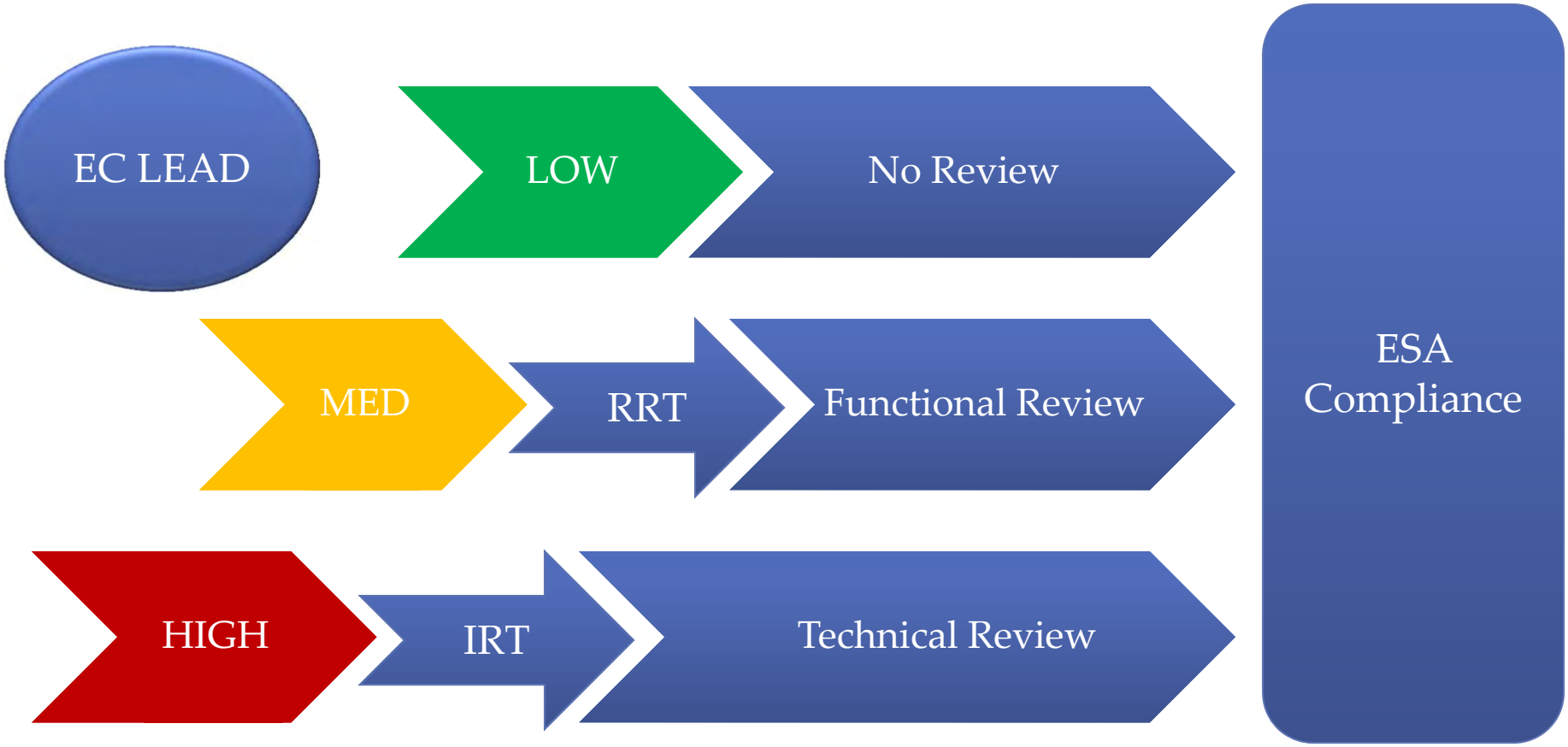


- NMFS = National Marine Fisher BC = Branch Chief;
- FWS = US Fish and Wildlife Service; FOS ield Office Supervisor
- RRT = Restoration Review Team
- "Submit" means send to the appropriate NMFS/FWS e-mail box
- "Send" means send to an individual BC/FOS, Fish Passage Engineer, or RRT Lead
- Notification Form (NF) to be submitted >60 days before construction

Restoration Review Teams (RRT)

- A different team for each programmatic
  - HIP III: Dan Gambetta, dagambetta@bpa.gov
  - ARBO II: Scott Peets, speets@fs.fed.us & Scott Lightcap, slightca@blm.gov
  - PROJECTS: Janine Castro, janine_m_castro@fws.gov
- Reviews:
  - Dam removal
  - Channel reconstruction/relocation projects
  - Precedent or policy setting actions, such as application of new technology
- Keeps record of meetings and decisions
- Meets on an as needed basis and annually

HIP III Restoration Review Team General Process



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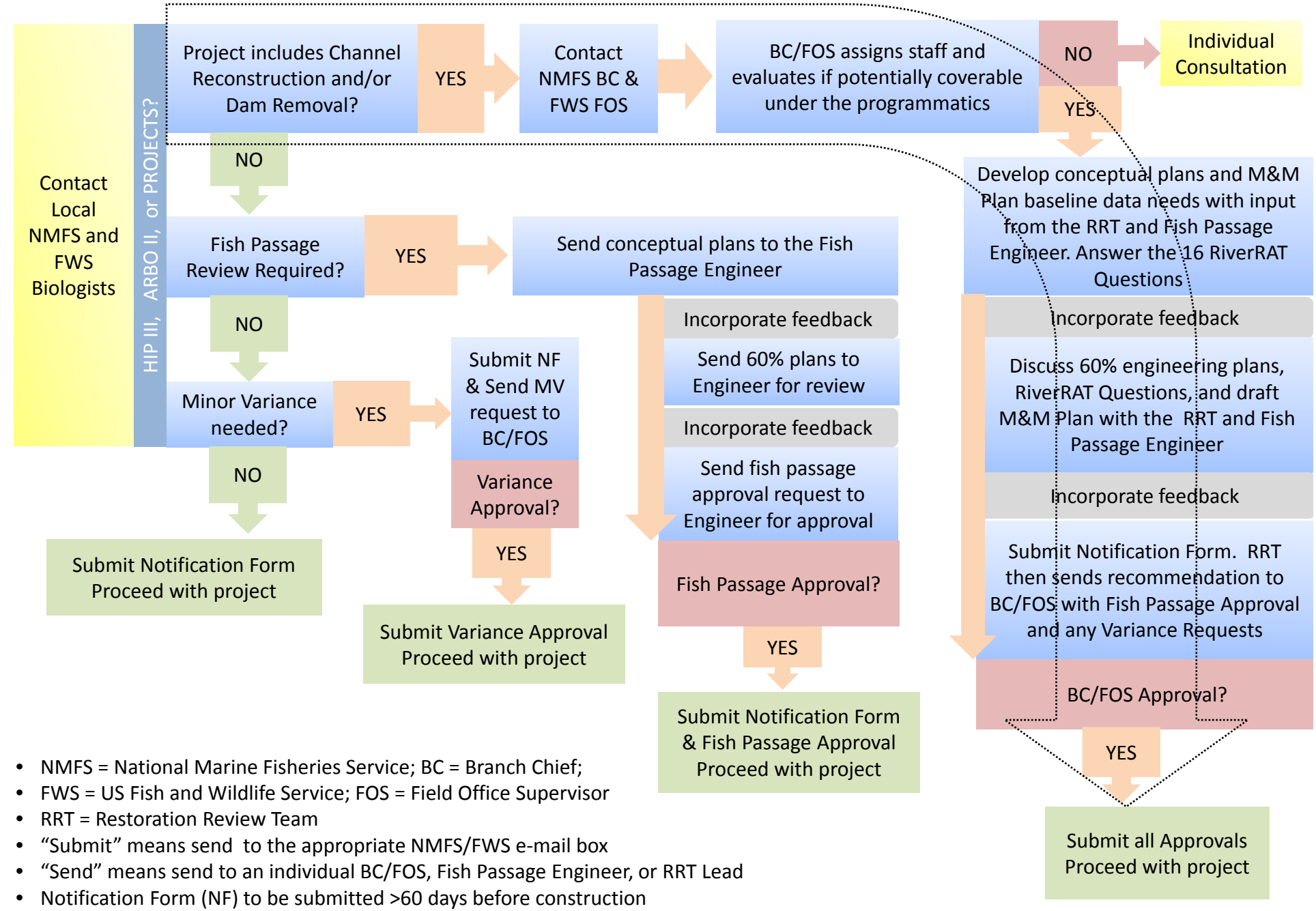

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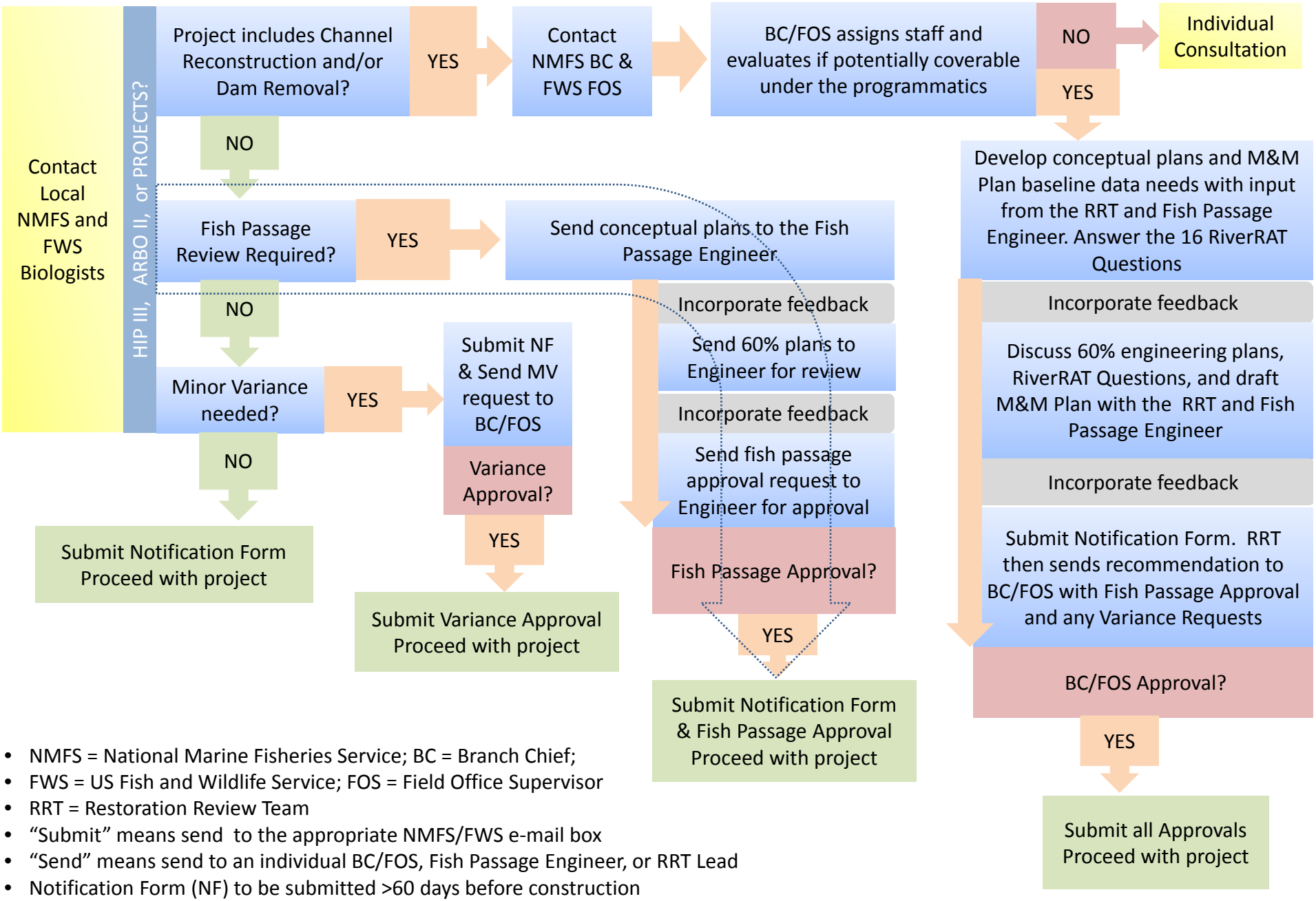
Fish Passage Approval

- Dewatering construction sites by pumping at a >3 cfs requires fish screen review
- Culverts and bridges that do not meet width standards
- Headcut stabilization and channel spanning non-porous rock structures that create discrete longitudinal drops > 6 inches
- Fish ladders
- Engineered log jams that occupy >25% of the bankfull area
- Irrigation diversion replacement/relocation
- Fish screen installation/replacement
- Off- and side-channel reconstruction that contain >20% of the bankfull flow
- Dam removal**
- Channel reconstruction/relocation projects**

IDEALIZED RESTORATION PROGRAMMATIC REVIEW PROCESS



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Minor Variances

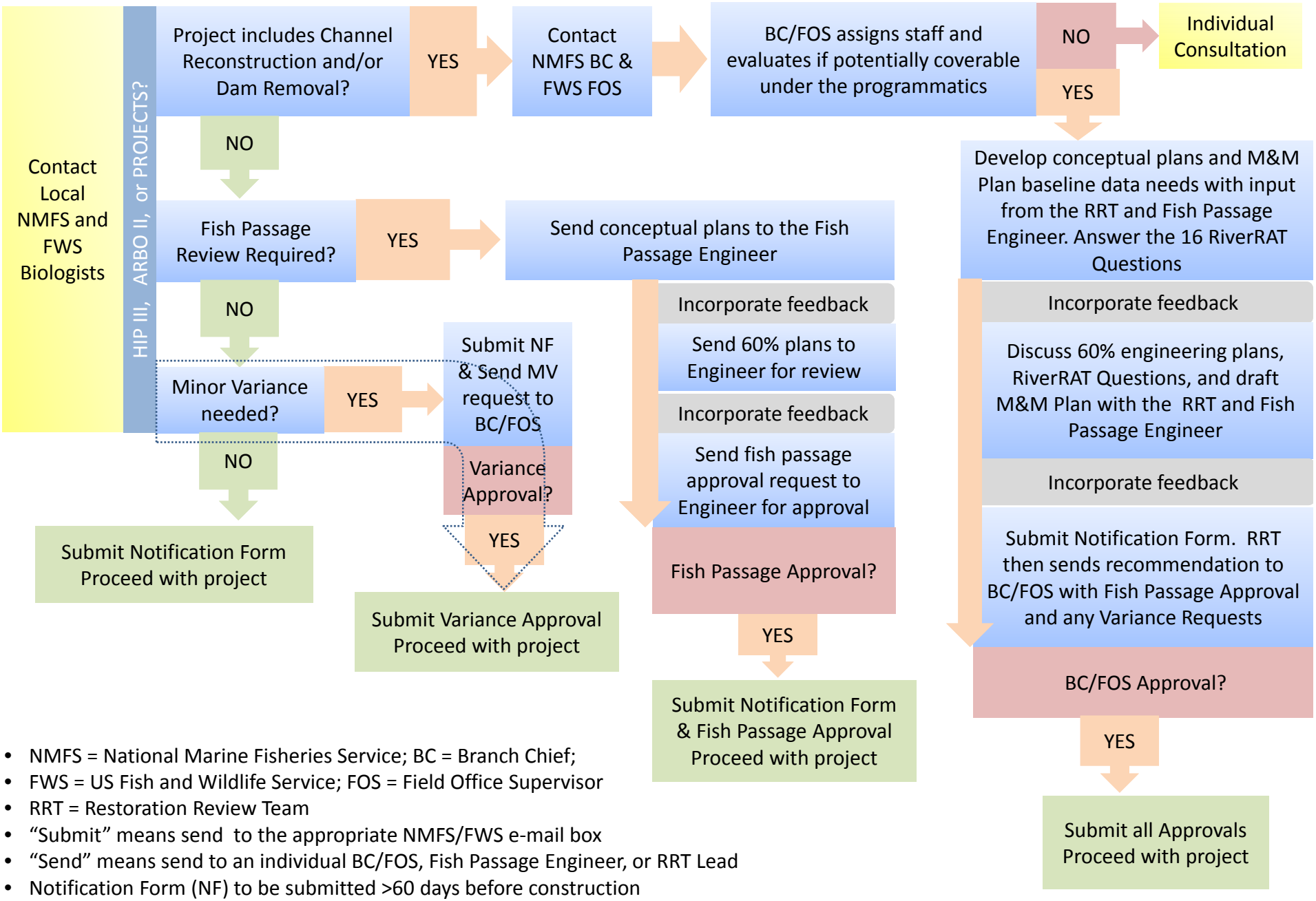
NMFS Branch Chiefs and/or FWS Field Office Supervisors will authorize variance if there is a clear conservation benefit. May be requested as part of the notification process and must:

a. Cite ARBO II identifying number
b. Cite the relevant criterion by page number
c. Define the requested variance
d. Explain why the variance is necessary
e. Provide a rationale why the variance will either provide a conservation benefit or, at a minimum, not cause additional adverse effects.
f. Include as attachments any necessary approvals by state agencies.

**Does not introduce new mechanisms of take or increased take, and it is all context dependent.*

***Requires a biological rationale.*

IDEALIZED RESTORATION PROGRAMMATIC REVIEW PROCESS



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- FWS = US Fish and Wildlife Service; FOS = Field Office Supervisor
- RRT = Restoration Review Team
- "Submit" means send to the appropriate NMFS/FWS e-mail box
- "Send" means send to an individual BC/FOS, Fish Passage Engineer, or RRT Lead
- Notification Form (NF) to be submitted >60 days before construction

How to use your Action Implementation/Notification Form:

- Project action will determine route
- Assess if you can meet BMP/PDC (fish passage review/variance?)
- Assess your species (special conditions)
- Contact NOAA/USFWS as necessary. "*Consult early, consult often*"…

Hint: Know what portions of the programmatic apply to your common projects types and species. Bookmark these.

Sequence of Form Submission:

- Submit to appropriate email box, which “invokes” ESA coverage.
  - **NO FORM = NO COVERAGE**
- AIF/PNF – 30 to 60 days before implementation.
- Mailbox will auto-respond w/receipt.
- Start Project, undertake fish salvage, etc.
- Submit Fish Salvage Reporting Form within 60 days of capture/release.
- Submit Action Completion Report within 60 days of work below OHW.

1. Action Notification

****NOTE: UPDATE (5/15/2014) - This form is now available for use with the NMFS PROJECTS Programmatic Biological Opinion, NWR-2013-10221* ***AND*** *can be used with the existing USFWS Oregon Partners/Coastal/Recovery Programmatic BO's (Oregon & Willamette Valley)* ***AND*** *the Habitat Restoration Activities Programmatic BO for the Washington Fish & Wildlife Office. Once the USFWS issues the PROJECTS programmatic biological opinion, this form will be used with both PROJECTS BO's.*

Date of Request:		**BiOp Tracking Numbers:**	**USFWS (OR): 13420-2010-F-0003** **USFWS (WA): 1-3-05-FWF-0167** **NMFS: NWR-2013-10221**
		Lead Action Agency:	☐ USFWS ☐ NOAA RC
State:	☐ Idaho ☐ Oregon ☐ Washington		
Nature of habitat:	☐ Aquatic ☐ Upland ☐ Both		
Type of Request:	☐ Approval Required ☐ No Approval Required		
Statutory Authority *(Check all that apply)*:	☐ ESA (USFWS) ☐ ESA (NMFS) ☐ EFH (NMFS)		
Action Agency Contact:			
USFWS Database Number:		**NOAA RC RCDB Number:**	
Project Name (*e.g.*, Hay Cr. culvert replacement):			
6th Field HUC & Name:			
Latitude & Longitude (in signed degrees format: DDD.dddd):	**Latitude:**	**Longitude:**	
Proposed Construction Period:	**Start Date:**	**End Date:**	
Proposed Length of Channel and/or Riparian Modification (Linear feet):			
Proposed Area of Herbicide Application (Acres):			
Upland acres treated (i.e. Rx burn, mowing, planting, etc.):			

Provided as an example only. Please refer to the appropriate Biological Opinion for applicable forms.

Type of Action: *Identify the type of action proposed.*

- ☐ Fish Passage Restoration (Stream Simulation Culvert and Bridge Projects; Headcut and Grade Stabilization; Fish Ladders; Irrigation Diversion Replacement/Relocation and Screen Installation/Replacement)
- ☐ Large Wood (LW), Boulder, and Gravel Placement; Engineered Logjams (ELJ); Constructed Riffles, Constructed Riffles, Porous Boulder Weirs and Vanes; Gravel Augmentation; Tree Removal for LW Projects
- ☐ Dam and Legacy Structure Removal
- ☐ Channel Reconstruction/Relocation
- ☐ Off- and Side-Channel Habitat Restoration
- ☐ Streambank Restoration
- ☐ Set-Back or Removal of Existing Berms, Dikes, and Levees
- ☐ Reduction/Relocation of Recreation Impacts
- ☐ Livestock Fencing, Stream Crossings and Off-Channel Livestock Watering
- ☐ Piling, Marine Debris, and other Structure Removal
- ☐ Shellfish Restoration
- ☐ In-channel Nutrient Enhancement
- ☐ Road and Trail Erosion Control and Decommissioning
- ☐ Juniper Removal
- ☐ Riparian Vegetative Planting
- ☐ Native Fish Protection
- ☐ Beaver Habitat Restoration
- ☐ Wetland Restoration
- ☐ Tide Gate Removal, Replacement, or Retrofit
- ☐ Restore Native Vegetation
- ☐ Upland Silvicultural Treatments

USFWS Species/Critical Habitat Present in Action Area: *Identify the species and critical habitats present in the action area (N/A means not applicable):*

Species	*Critical Habitat*	
		Mammals
☐	☐	Canada lynx
☐	N/A	Columbian white-tailed deer (Columbia River DPS)
☐	N/A	Gray wolf (Coterminous USA DPS – portions of OR and WA, not ID)
☐	N/A	Grizzly bear
☐	☐	Mazama pocket gopher (Note: Not covered until FWS PROJECTS PBO is issued)
☐	☐	North American wolverine
☐	N/A	Northern Idaho ground squirrel
☐	N/A	Pygmy rabbit (Columbia Basin DPS)
☐	☐	Southern Selkirk Mountains woodland caribou

Species	*Critical Habitat*	
		Birds
☐	☐	Marbled murrelet
☐	☐	Northern spotted owl
☐	☐	Streaked horned lark (Not covered until FWS PROJECTS PBO is issued)
☐	☐	Western snowy (coastal) plover
		Reptiles and Amphibians
☐	☐	Oregon spotted frog (Not covered until FWS PROJECTS PBO is issued)
		Fish
☐	☐	Bull trout
☐	N/A	Lahontan cutthroat trout
☐	☐	Warner sucker
		Invertebrates
☐	☐	Fender's blue butterfly
☐	☐	Oregon silverspot butterfly
☐	☐	Taylor's checkerspot butterfly (Not covered until FWS PROJECTS PBO is issued)
☐	☐	Vernal pool fairy shrimp

Species	*Critical Habitat*	
		Plants
☐	N/A	Bradshaw's desert parsley
☐	☐	Cook's lomatium
☐	N/A	Gentner's fritillary
☐	N/A	Golden paintbrush
☐	N/A	Howell's spectacular thelypody
☐	☐	Kincaid's lupine
☐	☐	Large-flowered woolly meadowfoam
☐	N/A	MacFarlane's four-o'clock
☐	☐	Malheur wire-lettuce
☐	N/A	Marsh sandwort
☐	N/A	Nelson's checker mallow
☐	N/A	Spalding's catchfly
☐	N/A	Water howellia
☐	N/A	Western lily
☐	☐	Willamette daisy

Provided as an example only. Please refer to the appropriate Biological Opinion for applicable forms.

NMFS Species/Critical Habitat Present in Action Area: *Identify the liste-species, critical habitat, and essential fish habitat (EFH) present in the action area (N/A means not applicable):*

Species	*Critical Habitat*	
☐	☐	Lower Columbia River Chinook salmon
☐	☐	Upper Willamette River Chinook salmon
☐	☐	Upper Columbia River spring-run Chinook salmon
☐	☐	Snake River spring/summer-run Chinook salmon
☐	☐	Snake River fall-run Chinook salmon
☐	☐	Puget Sound Chinook salmon
☐	☐	Columbia River chum salmon
☐	☐	Hood Canal summer-run chum salmon
☐	N/A	Lower Columbia River coho salmon
☐	☐	Oregon Coast coho salmon
☐	☐	Southern Oregon/Northern California Coast coho salmon
☐	☐	Lake Ozette sockeye salmon
☐	☐	Snake River sockeye salmon
☐	☐	Lower Columbia River steelhead
☐	☐	Upper Willamette River steelhead
☐	☐	Middle Columbia River steelhead
☐	☐	Upper Columbia River steelhead
☐	☐	Snake River Basin steelhead
☐	N/A	Puget Sound steelhead
☐	☐	Southern DPS eulachon
		EFH Species
☐		Salmon, Chinook
☐		Salmon, Coho
☐		Coastal Pelagics
☐		Groundfish

Terms and Conditions: *Check the terms and conditions from the biological opinion that will be included as conditions for any action funded or carried out under this opinion.*

Administration

- ☐ USFWS/NOAARC review
- ☐ Restoration Review Team review
- ☐ Request for NMFS fish passage review
- ☐ Site access
- ☐ Site assessment for contaminants
- ☐ Funding conditions
- ☐ Fish Salvage notice

General Construction Measures

- ☐ Flagging sensitive areas
- ☐ Temporary access roads and paths
- ☐ In-water work period
- ☐ Fish Capture and release
- ☐ Construction water
- ☐ Vehicle staging and use
- ☐ Work from top of bank
- ☐ Staging, Storage, and Stockpile Areas
- ☐ Dust Abatement
- ☐ Surveys
- ☐ Temporary erosion controls
- ☐ Fish passage
- ☐ Work area isolation
- ☐ Electrofishing
- ☐ Fish screens
- ☐ Choice of equipment
- ☐ Stationary power equipment
- ☐ Site restoration
- ☐ Temporary Stream Crossings
- ☐ Revegetation

Invasive and non-native plant control

- ☐ Non-herbicide methods
- ☐ Required herbicide buffer distances
- ☐ Herbicide transportation and safety plan
- ☐ Approved herbicide adjuvants
- ☐ Approved dye
- ☐ Approved herbicide application rates
- ☐ Approved application methods
- ☐ Power equipment
- ☐ Herbicide applicator qualifications
- ☐ Approved herbicides
- ☐ Approved herbicide carriers
- ☐ Herbicide mixing
- ☐ Minimize herbicide drift and leaching

Types of Restoration Actions

Fish Passage Restoration

- ☐ Stream Crossing
- ☐ Stabilize Headcut
- ☐ Irrigation Diversion
- ☐ Fish Ladder
- ☐ Screen Installation/Replacement
- ☐ Grade Stabilization

Large Wood, Boulder, and Gravel Placement

- ☐ Large Wood or Boulders
- ☐ Constructed Riffles
- ☐ Gravel Augmentation
- ☐ Engineered Logjams
- ☐ Porous Boulder Structures and Vanes
- ☐ Tree Removal for LW Projects

Dam and Legacy Structure Removal

- ☐ Dam Removal
- ☐ Legacy Structure Removal

Channel Reconstruction/Relocation

- ☐ Design Guidance
- ☐ Monitoring and adaptive plan
- ☐ Project documentation

Off- and Side Channel Habitat Restoration

- ☐ Review and approve
- ☐ Allowable excavation
- ☐ Data requirements

Provided as an example only. Please refer to the appropriate Biological Opinion for applicable forms.

Streambank Restoration

- ☐ Streambank shaping
- ☐ Large wood
- ☐ Planting or installing vegetation
- ☐ Fencing
- ☐ Soil reinforcement
- ☐ Use of rock in streambank restoration
- ☐ Fertilizer

Set-Back or Removal of Existing Berms, Dikes, and Levees

- ☐ Floodplains and Freshwater Deltas
- ☐ Estuary Restoration

Livestock Stream Crossings and Off-Channel Livestock Watering Facilities

- ☐ Livestock stream crossings
- ☐ Livestock Fencing
- ☐ Off-channel watering facilities

Road and Trail Erosion Control and Decommissioning

- ☐ Road Decommissioning/ Stormproofing
- ☐ Road Relocation

Juniper Tree Removal

- ☐ Approved juniper tree removal methods
- ☐ Management of juniper slash

Beaver Habitat Restoration

- ☐ In-channel structures
- ☐ Habitat Restoration

Wetland Restoration (type)

- ☐ Riparian
- ☐ Vernal pools
- ☐ Wetland meadows
- ☐ Bogs
- ☐ Swamps
- ☐ Ponds

Tide/Flood Gate Removal, Replacement, or Retrofit

- ☐ Removal
- ☐ Retrofit
- ☐ Culvert or bridge
- ☐ Design Approved by NMFS
- ☐ Replacement
- ☐ Dike breach or setback
- ☐ Monitoring/Adaptive Management Plan

Restore Native Vegetation

- ☐ Site Preparation
- ☐ Prescribed Fire
- ☐ Planting and Maintaining Vegetation
- ☐ Control of invasive species (ie. mechanical control or herbicide application)

Upland Silvicultural Treatments

- ☐ Forest thinning
- ☐ Planting of native species
- ☐ Limb pruning
- ☐ Control of invasive species

Provided as an example only. Please refer to the appropriate Biological Opinion for applicable forms.

2. Action Completion Report

****NOTE: UPDATE (5/15/2014) - This form is now available for use with the NMFS PROJECTS Programmatic Biological Opinion, NWR-2013-10221* ***AND*** *can be used with the existing USFWS Oregon Partners/Coastal/Recovery Programmatic BO's (Oregon & Willamette Valley)* ***AND*** *the Habitat Restoration Activities Programmatic BO for the Washington Fish & Wildlife Office. Once the USFWS issues the PROJECTS programmatic biological opinion, this form will be used with both PROJECTS BO's.*

A) AQUATIC (INSTREAM-RIPARIAN) PROJECT ACTIVITIES: Within 60 days of completing all work below ordinary high water (OHW) as part of an action completed under PROJECTS, submit the completed Action Completion Form with the following information to NMFS at usfws.biop.nwr@noaa.gov (USFWS projects) or noaarc.biop.nwr@noaa.gov (NOAARC projects), and/or to USFWS at projects@fws.gov (USFWS & NOAARC).

Actual Start and End Dates for the Completion of In-water Work:	**Start**:	**End**:
Actual Linear-feet of Riparian and/or Channel Modification:		
Actual Acreage of Herbicide Treatment		
Turbidity Monitoring/Sampling Completed	☐ Yes (include details below)	☐ No

Please include the following:

1. Photos of habitat conditions before, during, and after action completion.

2. A summary of the results of pollution and erosion control inspections, including any erosion control failure, contaminant release, and correction effort.

3. Records of turbidity monitoring (visual or by turbidimeter) including dates, times and location of monitoring. Include any exceedances and steps taken to reduce turbidity observed.

Provided as an example only. Please refer to the appropriate Biological Opinion for applicable forms.

3. Fish Salvage Reporting Form

****NOTE: UPDATE (5/15/2014) - This form is now available for use with the NMFS PROJECTS Programmatic Biological Opinion, NWR-2013-10221* ***AND*** *can be used with the existing USFWS Oregon Partners/Coastal/Recovery Programmatic BO's (Oregon & Willamette Valley)* ***AND*** *the Habitat Restoration Activities Programmatic BO for the Washington Fish & Wildlife Office. Once the USFWS issues the PROJECTS programmatic biological opinion, this form will be used with both PROJECTS BO's.*

If applicable: Within 60 days of completing a capture and release as part of an action completed under PROJECTS, the applicant or must submit a complete Salvage Reporting Form, with the following information to NMFS at usfws.bio.nwr@noaa.gov (USFWS projects) or noaarc.biop.nwr@noaa.gov (NOAARC projects), or USFWS at projects@fws.gov (USFWS & NOAARC projects).

Date(s) of Fish Salvage Operation(s):	
Supervisory Fish Biologist:	
Address:	
Telephone Number:	

Describe methods that were used to isolate the work area and remove fish

Provided as an example only. Please refer to the appropriate Biological Opinion for applicable forms.

Fish Salvage Data

Water Temperature:

Air Temperature:

Time of Day:

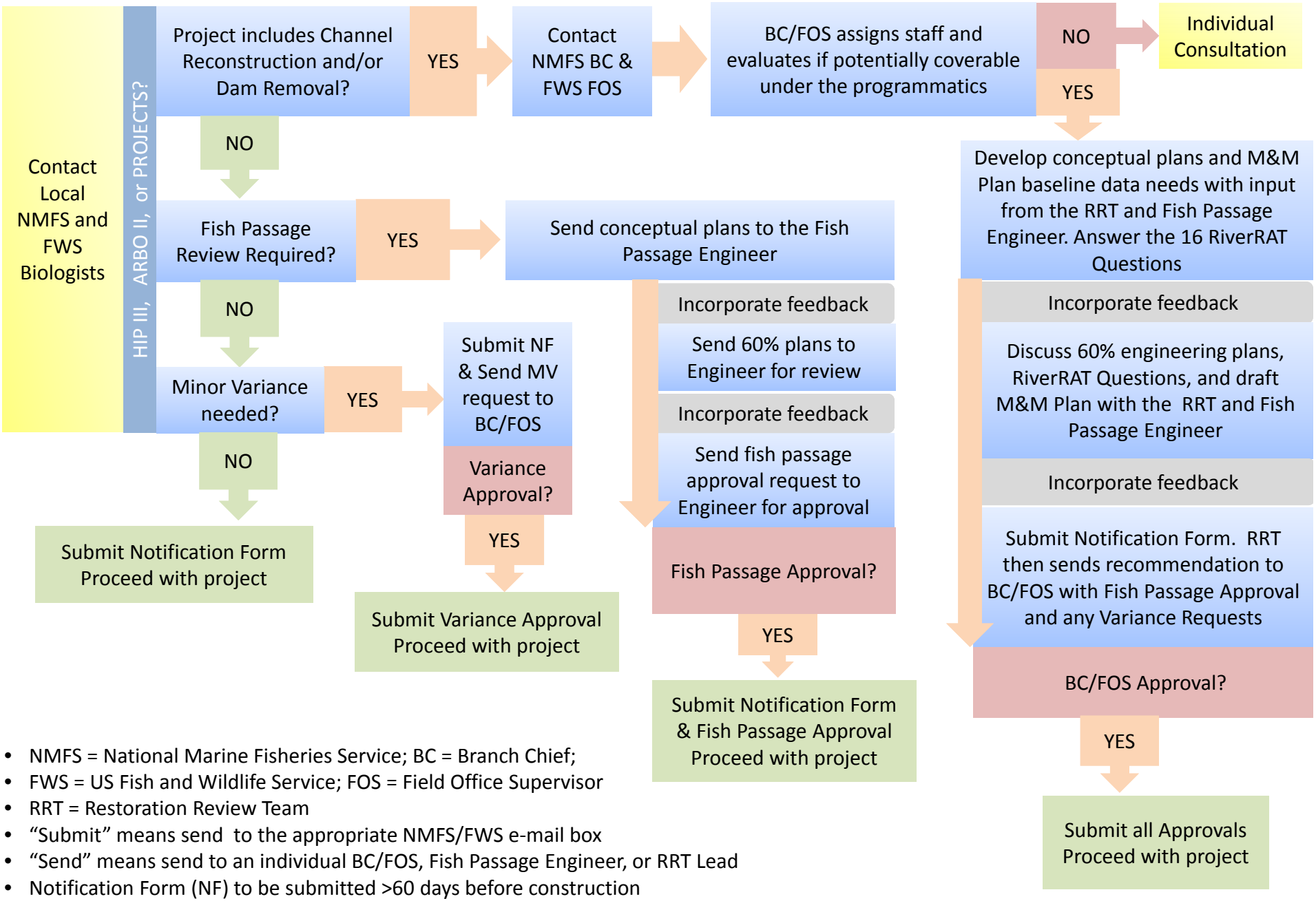
ESA-Listed Species	Number Handled		Number Injured		Number Killed	
	Juvenile	Adult	Juvenile	Adult	Juvenile	Adult
Lower Columbia River Chinook salmon						
Upper Willamette River Chinook salmon						
Upper Columbia R. spring-run Chinook salmon						
Snake River spring/summer-run Chinook salmon						
Snake River fall-run Chinook salmon						
Puget Sound Chinook salmon						
Lake Ozette sockeye salmon						
Columbia River chum salmon						
Lower Columbia River coho salmon						
Oregon Coast coho salmon						
S. Oregon/N. California Coasts coho salmon						
Snake River sockeye salmon						
Lower Columbia River steelhead						
Upper Willamette River steelhead						
Middle Columbia River steelhead						
Upper Columbia River steelhead						
Snake River Basin steelhead						
Eulachon						
Bull trout (FWS)						
Lahontan cutthroat trout (FWS)						
Warner sucker (FWS)						

Provided as an example only. Please refer to the appropriate Biological Opinion for applicable forms.

Case Study - Use of a programmatic on an actual project that is currently in progress…

Wimer Dam
Evans Creek, Oregon

IDEALIZED RESTORATION PROGRAMMATIC REVIEW PROCESS



- NMFS = National Marine Fisheries Service; BC = Branch Chief;
- FWS = US Fish and Wildlife Service; FOS = Field Office Supervisor
- RRT = Restoration Review Team
- "Submit" means send to the appropriate NMFS/FWS e-mail box
- "Send" means send to an individual BC/FOS, Fish Passage Engineer, or RRT Lead
- Notification Form (NF) to be submitted >60 days before construction

Website and Mailboxes:

For the most up-to-date BiOp versions:
www.fws.gov/oregonfwo/ToolsForLandowners/OtherResources.asp

HIP III:

FWS: hip3@fws.gov
NMFS: hip.nwr@noaa.gov
BPA: HIP_Reporting@bpa.gov

ARBO II:

FWS: arbo@fws.gov
NMFS: ARBO.nwr@noaa.gov

PROJECTS:

FWS: projects@fws.gov
NMFS: usfws.biop.nwr@noaa.gov **OR** noaarc.biop.nwr@noaa.gov

Auto-response example: "HIP3 Item Received"

Points of Contact:

HIP III:

FWS: Chris Allen, chris_allen@fws.gov
NMFS: Nancy Munn, nancy.munn@noaa.gov
Fish Passage: Jeff Brown, jeffrey.brown@noaa.gov
RRT: Dan Gambetta, dagambetta@bpa.gov

ARBO II:

FWS: Paul Bridges, paul_bridges@fws.gov
NMFS: Ken Phippen, ken.phippen@noaa.gov
Fish Passage: Aaron Beavers, aaron.beavers@noaa.gov
RRT, FS: Scott Peets, speets@fs.fed.us
RRT, BLM: Scott Lightcap, slightca@blm.gov

PROJECTS:

FWS: Ann Gray, ann_e_gray@fws.gov
NMFS: Ken Phippen, ken.phippen@noaa.gov
Fish Passage: Aaron Beavers, aaron.beavers@noaa.gov
RRT: Janine Castro, janine_m_castro@fws.gov

Washington Fish and Wildlife Office (WFWO)
Lacey (State Office) – Bridget Moran, Division Manager
Central Washington – Jessica Gonzales, FO Supervisor
Eastern Washington – Russ MacRae, FO Supervisor
**Michelle Eames –technical POC for WFWO for HIP III consultation

Oregon Fish and Wildlife Office (OFWO)
Portland (State Office) – ES Division Manager (Jeff Dillon)
Bend FO – Nancy Gilbert, FO Supervisor
La Grande FO – Gary Miller, FO Supervisor
Roseburg FO – Jim Thrailkill, FO Supervisor
Newport FO – Laura Todd, FO Supervisor
** Chris Allen –technical POC for OFWO for HIP III consultation

Idaho Fish and Wildlife Office (IFWO)
Boise (State Office) – Russ Holder, Assistant State Supervisor
Eastern Idaho FO – David Kampwerth, Field Office Supervisor
Northern Idaho FO – Ben Conard, Field Office Supervisor
**Pam Druliner – technical POC for IFWO for HIP III consultation

Montana Fish and Wildlife Office (MFWO)
Helena (State Office) – Jodi Bush, State Supervisor; Brent Esmoil, Assistant State Supervisor
Kalispell – Tim Bodurtha, Field Office Supervisor

http://www.westcoast.fisheries.noaa.gov/about_us/index.html

www.westcoast.fisheries.noaa.gov/about_us/index.html

Apps For quick access, place your bookmarks here on the bookmarks bar. Import bookmarks now...

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- Hatcheries
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- Publications
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- Education & Outreach
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- How do I?
  - Contact the West Coast Region

NOAA Fisheries West Coast Region

NOAA Fisheries is dedicated to protecting and preserving our nation's living marine resources through scientific research, fisheries management, enforcement, and habitat conservation. The West Coast Region of NOAA Fisheries administers fisheries programs along the coasts of Washington, Oregon and California; and in the vast inland habitats of Washington, Oregon, California and Idaho. We work to conserve, protect, and manage salmon and marine mammals under the Endangered Species Act and Marine Mammal Protection Act, and sustainably manage West Coast fisheries as guided by the Magnuson-Stevens Fisheries Conservation Act. To achieve this mission and advance sound stewardship of these resources, we work closely with tribes, local, state and federal agencies, our stakeholders, and partners to find science-based solutions to complex ecological issues.

- Regional Leadership
- Sustainable Fisheries Division
- Protected Resources Division
- Operations, Management & Information Services
- Communications & External Affairs Office
- Oregon & Washington Coastal Area Office
- Interior Columbia River Basin Area Office
- California Central Valley Area Office
- California Coastal Area Office
- Locations & Contact Information