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## North Coast Regional Water Quality Control Board

August 4, 2015

Ms. Anna Halligan  
Trout Unlimited  
P.O. Box 1966  
Fort Bragg, CA, 95437

Dear Ms. Halligan:

**Subject:** Notice of Applicability (NOA) for Coverage under the State Water Resources Control Board General 401 Water Quality Certification Order for Small Habitat Restoration Projects SB12006GN

**File:** South Fork Ten Mile River Stream Habitat Enhancement and Augmentation Project; ECM PIN CW-815687; WDID No. 1B15061WNME

This letter is to certify coverage of Trout Unlimited's project, *South Fork Ten Mile River Stream Habitat Enhancement and Augmentation Project* (Project) under the General 401 Water Quality Certification Order for Small Habitat Restoration Projects; Order No. SB12006GN (General 401 Order). The proposed Project includes using heavy equipment to uproot and topple large streamside conifers with their rootmasses intact and introducing them into the South Fork Ten Mile River.

### Background

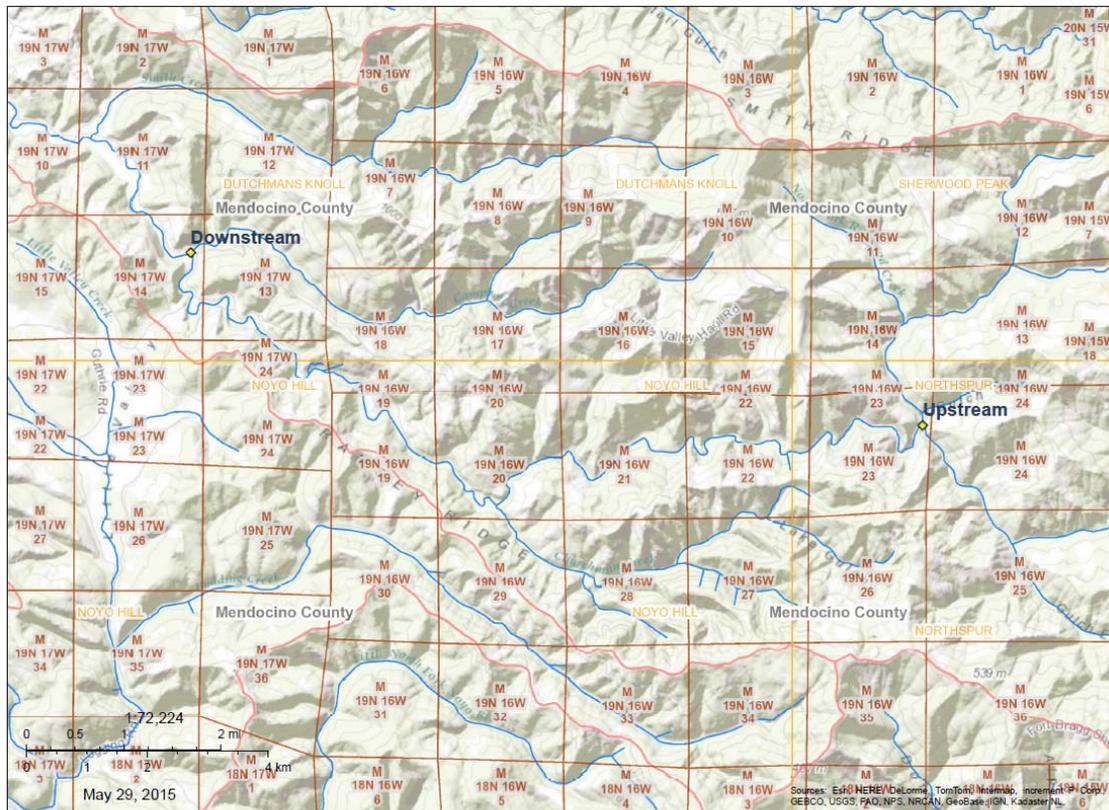
On June 4, 2015, the North Coast Regional Water Quality Control Board (Regional Water Board) received a Notice of Intent (NOI) from Trout Unlimited (Applicant) to comply with the terms of, and obtain Project coverage under, the General 401 Order for the Project.

Regional Water Board staff requested several modifications to the original NOI. Required modifications included: (1) clarification of linear units used in measuring project impacts; and (2) clarification of the number trees to be uprooted for the project. On July 7, 2015, the Applicant resubmitted a revised NOI to Regional Water Board staff addressing the requested modifications.

### Project Location

The Project is located on the South Fork Ten Mile River, Mendocino Coast Hydrologic Unit 113.13. Coordinates of the center of the project are 39.49029° N, 123.65061° W (Figure 1).

Stream Habitat Enhancement and Augmentation Project- SF Ten Mile River



Author: A. Halligan  
Printed from <http://bios.dfg.ca.gov>

Figure 1 shows the project reach.

### Project Description

The goal of the Project is to introduce large streamside conifers with their rootmasses intact at nine locations to help stabilize existing large woody materials that were introduced under a previous restoration project. To implement this project, heavy equipment will be used to uproot and topple large conifers (mostly redwood) into the channel at up to nine sites on the S. Fork Ten Mile River. The rootmasses will act as anchors and will help retain cut logs from the previous restoration projects during high stream discharge events while creating additional elements of structural complexity.

To implement this project, a Caterpillar 320 or a 330 excavator will be used to uproot and topple large conifers (mostly redwood) into the channel. Some trees will likely need to be

pushed across the flood prone terrace for optimal structure positioning in the channel. In order to avoid introducing hillslope derived sediments into the stream channel, trees found in the flood prone area were only selected. All exposed earth will be mulched with hay after site completion to further minimize these effects.

Any material with potential to be hazardous to aquatic life, resulting from project activities, will be prevented from contaminating the soil and entering the creek. All trash that may attract potential predators of salmonids will be properly contained and disposed of daily. The use of petroleum powered equipment shall be accomplished in a manner that prevents the release of petroleum materials into the creek. Areas of fueling, fuel storage and servicing of chainsaws will be in an upland location. All heavy equipment will be cleaned of external oil, grease, dirt or mud prior to use. All equipment will be in good working order and be inspected for leaks on a daily basis. Oil absorbent and spill containment material will be located on site when a chainsaw is in operation within 100 feet of the watercourse.

The project applicant provided additional project detail in an attachment to the application package titled *Monitoring and Reporting Plan: South Fork Ten Mile River Creek Coho Habitat Enhancement Project*. The attachment provides additional information related to project location and description, environmental need, environmental monitoring data, design criteria, assessment of project area flora and fauna, monitoring and reporting plans, and environmental protection measures. The proposed activities and environmental protection measures included therein are considered an enforceable component of this water quality certification and are attached for reference (see attachment).

#### Project Size

The total of ground disturbance associated with the Project is estimated to be 2.74 acres and 452.3 linear feet. The applicant has provided the calculations used to determine the total size of the Project (Figure 2). The proposed project size does not exceed what is allowed for coverage under the General 401 Water Quality Certification Order for Small Habitat Restoration Projects and associated Categorical Exemption (15333) from the California Environmental Quality Act.

STREAM ZONE OPERATIONAL AREAS (within Waters of the State)					
AREA ID	Width (ft)	Length (ft)	Disturbance (ft <sup>2</sup> )	Disturbance (acres)	Linear Impact (ft)
1a	40	40	1600	0.04	40
1b	40	40	1600	0.04	40
2	40	40	1600	0.04	40
3	40	40	1600	0.04	40
4	40	40	1600	0.04	40
5	40	40	1600	0.04	40
6	40	40	1600	0.04	40
7	40	40	1600	0.04	40
8	40	40	1600	0.04	40
9	40	40	1600	0.04	40
<b>TOTAL DISTURBANCE</b>			<b>16000</b> feet <sup>2</sup>	<b>0.38</b> acres	<b>400.00</b> linear ft

PROJECT ACCESS ROUTES (outside Waters of the State)					
TRAIL ID	Width (ft)	Length (ft)	Disturbance (ft <sup>2</sup> )	Disturbance (acres)	
1a	20	50	1000	0.02	
1b	20	50	1000	0.02	
2	20	340	6800	0.16	
3	20	100	2000	0.05	
4	20	1000	20000	0.46	
5	20	100	2000	0.05	
6	20	2050	41000	0.94	
7	20	500	10000	0.23	
8	20	180	3600	0.08	
9	20	200	4000	0.09	
<b>TOTAL DISTURBANCE</b>			<b>91400</b> feet <sup>2</sup>	<b>2.10</b> acres	

LARGE WOODY MATERIAL CALCULATIONS					
Number of Trees	Width (ft)	Length (ft)	Disturbance (ft <sup>2</sup> )	Disturbance (acres)	Linear Impact (ft)
1	4	80	320	0.01	4
1	3.5	80	280	0.01	3.5
1	5.5	80	440	0.01	5.5
1	5	60	300	0.01	5
1	4	60	240	0.01	4
1	4.5	80	360	0.01	4.5
1	5.5	80	440	0.01	5.5
1	8.3	80	664	0.02	8.3
1	6	80	480	0.01	6
1	6	80	480	0.01	6
<b>TOTAL DISTURBANCE</b>			<b>4004</b> feet <sup>2</sup>	<b>0.10</b> acres	<b>52.30</b> linear ft

CANOPY REMOVAL AREA CALCULATIONS			CONVERSION	
Number of Trees	Disturbance per tree (acres)	Total Disturbance (acres)	Acres	Feet <sup>2</sup>
10	0.015	0.15	1	43560.2

TOTAL PROJECT SIZE			
ACRES:	2.74	LINEAR FEET:	452.30

Figure 2. Project Size Calculator

Project Associated Discharge

The discharge of material into waters of the State resulting from the Project include those associated with the individual conifers and some incidental sediment discharges associated with bank disturbance.

Project Time Frame

Proposed project start date: August 1, 2015

Expected date of completion: June 15, 2016

Seasonal work window: August 1, 2015 – October 31, 2015

### Monitoring Plan

The primary performance measures that will evaluate the Project's goal of increasing large woody (LWM) material in the S. Fork Ten Mile River will include shelter values and LWM wood counts. Prior to implementation, project partners (Blencowe Watershed Management and Campbell Global) will complete a modified Level II habitat inventory following the CDFW Habitat Inventory Methods described in the California Salmonid Stream Habitat Restoration Manual (CDFW, July 2010). Each LWM log will be tagged with an aluminum tag to track and monitor transport and function within the project area. This pre-project survey will provide baseline data to determine the change in shelter values and shelter types. Pre-treatment data collection will also include completion of photo-documentation (using permanent photo points, and opportunistic photo points as needed) of pre-project conditions. One winter following implementation, project partners will conduct a habitat inventory again following the CDFW Habitat Inventory Method. This post-implementation data will be compared to the pre-project data to determine changes in shelter values and shelter types.

#### Monitoring schedule:

- Pre-Project Assessment – Late July or early August 2015
- Post-Project Assessment – Winter 2015 or Spring 2016

Exact dates when the post project monitoring occurs will be dependent on stream flows and weather events.

Monitoring of physical stream parameters will be conducted both before and after implementation. In the summer months prior to implementation and again following implementation, project partners will classify and measure habitat units (based on a modified Level II CDFW survey), quantify instream shelter, and conduct a large wood count. To identify physical responses to the restoration effort, habitat characteristics and metrics of instream wood for the pre- and post-implementation phases of the project will be compared.

### Agency Permits

The applicant has also submitted applications for permitting and/or coverage of:

- a. Army Corp of Engineers Section 404 Permit – Nationwide Permit 27 – Aquatic Habitat Restoration, Establishment, and Enhancement Activities pursuant to Section 404 of the Clean Water Act
- b. NOAA/NMFS Consistency Determination with Biological Opinion No. 151422SWR2006SR00190:JMA
- c. California Department of Fish and Wildlife – Coho HELP Act

Notice of Applicability & Project Determination

Regional Water Board staff has determined that the proposed activities as described in the NOI are categorically exempt from CEQA review and may proceed under the General 401 Water Quality Certification Order for Small Habitat Restoration Projects.

Receiving Water: South Fork Ten Mile River  
Mendocino Coast Hydrologic Unit 113.13

Filled / Excavated Area: None

Total Impacts: Acreage Temporarily Impacted: 2.74 acres  
Length Temporarily Impacted: 452.3 feet

Dredge Volume: None

Discharge Volume: 10 logs

Latitude/Longitude: Project Center : 39.49029° N, 123.65061° W

Reporting

As required in Section B, Item 4, of the *General 401 Water Quality Certification Order for Small Habitat Restoration Projects*, Monitoring Reports be submitted at least annually documenting the achievement of performance standards and project goals. In addition, a Notice of Completion (NOC) shall be submitted by the applicant no later than 30 days after the project has been completed. A complete NOC includes at a minimum: photographs with a descriptive title, the date each photograph was taken, the name of the photographic site, the WDID number indicated above, and success criteria for the project. The NOC shall demonstrate that the Project has been carried out in accordance with the Project description as provided in the applicant's NOI. Please include the project name and WDID number with all future inquiries and document submittals. Document submittals shall be made electronically to: [NorthCoast@waterboards.ca.gov](mailto:NorthCoast@waterboards.ca.gov)

The State Water Resources Control Board General 401 Water Quality Certification Order for Small Habitat Restoration Projects SB09016GN can be found here:  
[http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/generalorders/shrpcert032713.pdf](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/shrpcert032713.pdf)

Please call Jonathan Warmerdam at (707) 576-2468 or Jake Shannon at (707) 576-2673 if you have any questions.

Sincerely,

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Matthias St. John  
Executive Officer

150804\_JJS\_dp\_SFTenMileCreek\_NOA

**Attachment:** *Monitoring and Reporting Plan: South Fork Ten Mile River Creek Coho Habitat Enhancement Project.*

cc: Mary Olswang, California Department of Fish and Wildlife  
[Mary.Olswang@wildlife.ca.gov](mailto:Mary.Olswang@wildlife.ca.gov)

Allan Renger, California Department of Fish and Wildlife  
[Allan.Renger@wildlife.ca.gov](mailto:Allan.Renger@wildlife.ca.gov)

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[Cameron.R.Purchio@usace.army.mil](mailto:Cameron.R.Purchio@usace.army.mil)

**MONITORING AND REPORTING PLAN  
SOUTH FORK TEN MILE RIVER CREEK COHO HABITAT ENHANCEMENT PROJECT**

**VIII. Monitoring and Reporting Plan**

A. Functions of the Impacted Waterway

The Ten Mile River watershed has been primarily owned and managed for timber and livestock production since the turn of the century. Legacy logging practices and land development have had adverse impacts upon the stream habitat by removing existing large woody material (LWM) from the stream channel and harvesting future LWM recruitment. As a result of the loss of large wood in the Ten Mile River System, the instream habitat has simplified. This loss of habitat complexity has had adverse effect on the salmonid population, which has steadily declined over the past decades.

The South Fork Ten Mile River provides suitable habitat for threatened and endangered salmonid species (coho and steelhead trout). The project area lies within the property boundaries of the Hawthorne Timber Company, LLC and is managed by Campbell Global, LLC (BG).

B. Project Purpose, Goals, and Performance Standards

This project intends to increase instream habitat complexity and shelter ratings in a core coho watershed. Beginning in 2006, in an effort to enhance aquatic habitat in the South Fork of the Ten Mile River (SFT), Campbell Global, LLC (CG), which manages the majority of the watershed, implemented a series of wood projects. Over a three-year period, three projects funded mainly by California Department of Fish and Wildlife's Fisheries Restoration Grant Program (FRGP) were implemented (with contributions from CG and others). In all, 138 sites comprised of 309 individual logs were constructed using the "accelerated recruitment" method. This enhancement method delivers a large number of structural elements to the stream channel rapidly and economically.

Considering the recent regional declines in coho salmon populations, we believe rapid implementation is a prudent approach. However, there are some drawbacks to the accelerated recruitment process. Large streamside trees are felled and either moved or dropped directly into the stream channel. This means that the structures are unanchored, and the trunks are separated from the root masses, which makes the structures less stable during high flow events. Considering the habitat value of these wood structures for salmonids, some process is needed for further stabilization, which is the focus of the proposed project.

CG will conduct simple physical monitoring and is planned on all implemented structures, on a 2 tiered basis. Initially, before actual implementation, a stream reach of approximately 100 meters total extending above and below the actual site will be identified. A stream habitat inventory survey will be conducted prior to implementation, after implementation, and at a two and five year interval thereafter. The second

monitoring tier consists of photographic monitoring. Benchmark locations will be established and images will be taken from the benchmarks during the same periods as the habitat inventory surveys.

Additionally, Blencowe Watershed Management (BWM) staff plan to conduct monitoring of physical stream parameters both before and after implementation. In the summer months prior to implementation and again following at least one winter after implementation, project partners will collect information on shelter rating, large woody material (quantity and size), and canopy cover.

C. Measurable performance standards appropriate to each goal:

The primary performance measures that will evaluate the project's goal of increasing LWM in the SF Ten Mile will include shelter values and LWM wood counts. Prior to implementation, project partners (BWM, CG) will complete a modified Level II habitat inventory following the CDFW Habitat Inventory Methods described in the California Salmonid Stream Habitat Restoration Manual (CDFW, July 2010). Each LWM log will be tagged with an aluminum tag to track and monitor transport and function within the project area.

This pre-project survey will provide baseline data to determine the change in shelter values and shelter types. Pre-treatment data collection will also include completion of photo-documentation (using permanent photo points, and opportunistic photo points as needed) of pre-project conditions. One winter following implementation, project partners will conduct a habitat inventory again following the CDFW Habitat Inventory Method. This post-implementation data will be compared to the pre-project data to determine changes in shelter values and shelter types.

D. Monitoring parameters and protocols used to determine whether performance standards have been met:

- Shelter Value: CDFW Habitat Inventory Method, California Salmonid Stream Habitat Restoration Manual (CDFW, 2010)
- LWM Wood Count: No known protocol.

E. The timeframe and responsible party for determining attainment of performance standards:

CG and Blencowe Watershed Management staff will conduct the performance monitoring both before and after the project is implemented. The pre-project monitoring will most likely occur in the summer of 2015, and the post-project implementation will occur 1 year after the project is completed. CG staff may return to the site to conduct physical habitat monitoring again at a two and five year interval.

F. Monitoring schedule:

- Pre-Project Assessment – Late July or early August 2015
- Post-Project Assessment – Winter 2015 or Spring 2016

Exact dates when the post project monitoring occurs will be dependent on stream flows and weather events. Additional post project assessments may occur at a two and five year interval following construction.

G. Annual Reporting Schedule for the period stated as required for achievement of performance standards:

It is anticipated that Annual Reports will be provided following completion of the project (Winter 2015) and then following the completion of the post project monitoring (Spring 2016).

Monitoring of physical stream parameters will be conducted both before and after implementation. In the summer months prior to implementation and again following implementation, project partners will classify and measure habitat units (based on a modified Level II CDFW survey), quantify instream shelter, and conduct a large wood count. To identify physical responses to the restoration effort, habitat characteristics and metrics of instream wood for the pre- and post-implementation phases of the project will be compared.

**VIII. Reporting Plan**

Following the completion of the seasonal work period, an annual report will be submitted to all of the appropriate agencies (NMFS, ACOE, NCRWQCB, and CDFW). This annual report will include the findings that result from pre- and post-project monitoring. These findings should indicate the achievement of performance standards that are relative to the project goals. Each report will include the following information:

- Summary of findings
- Identification and discussion of problems with achieving performance standards
- Proposed corrective measures (requires Regional Water Board approval)
- Monitoring data