



North Coast Regional Water Quality Control Board

**Focused Pre-harvest Inspection (PHI) Report
Timber Harvest Plan (THP) 1-18-095 MEN**

Date: September 4, 2019

To: California Department of Forestry and Fire Protection (CAL FIRE), Second Review Team Chair, santarosareviewteam@fire.ca.gov
Art Haschak, Registered Professional Forester

From: Jim Burke, Senior Engineering Geologist, P.G. #7904, North Coast Regional Water Quality Control Board (Regional Water Board)

Subject: Pre-harvest Inspection, THP 1-18-095 MEN, "Little" THP

Introduction

On August 29, 2019, I participated in a focused pre-harvest inspection (PHI) for Timber Harvest Plan (THP) 1-18-095 MEN. Below is a list of all people who the PHI that day:

John Bennett	Gualala Redwoods Timber (GRT) - Forest Manger
Jesse Weaver	Redwood Empire – Registered Professional Forester (RPF)
Gabriel Ghrirann	GRT - Forestry Technician
Nick Kent	Redwood Empire - Forest Manger
Matt O'Connor	O' Connor Environmental INC. - Hydrologist
Will Creed	O' Connor Environmental INC. - Hydrologist
Kevin Doherty	California Geological Survey (CGS) - Geologist
Nick Simpson	California Department of Fish and Wildlife (CDFW) - Biologist
John Hendrix	CDFW- Biologist
Mark Smelser	CDFW- Geologist
Danielle Castle	CDFW- Biologist
Jim Burke	NCRWQCB - Geologist
Justin Fitt	NCRWQCB - Environmental Scientist
Dan Wilson	National Marine Fisheries Service (NMFS) - Fisheries Biologist
Pete Caferratta	CAL FIRE - Hydrologist
Stacy Standish	CAL FIRE - Biologist
Drew Coe	CAL FIRE - Hydrologist

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Ken Margiott CAL FIRE - Forester I
Jeff Longcrier CAL FIRE - Forester II
George Gentry Visiting RPF

August 29, 2019 was the fourth day of the PHI, previous PHI dates being:

December 12, 2018
January 3, 2019
May 14, 2019

The primary purpose for the focused PHI was for review team members to evaluate issues related to flood prone areas and channel migration zones. Pertinent technical analysis was primarily contained in two reports prepared by O' Connor Environmental INC.;

- Channel Migration Zone Evaluation for the Little Timber Harvest Plan, Little North Fork Gualala River, Mendocino County, dated August 2, 2019, which described their evaluation of the potential for the presence of a channel migration zone (CMZ) and delineation of discrete specific areas within the THP as CMZ; and
- Floodplain Study for the Little North Fork Gualala River dated March 21, 2019, which presents the results of their hydrologic analysis and delineation of the estimated 20-year return interval floodplain.

Discussion

Much of the THP area is located on floodplain adjacent to the little North Fork Gualala River. Assuming the floodplain is active and therefore subject to periodic flooding, floodplain areas meet the definition of Flood Prone Area from 14CCR 895.1;

Flood Prone Areas means an area contiguous to a watercourse channel zone that is periodically flooded by overbank flow. Indicators of flood prone areas may include diverse fluvial landforms, such as overflow side channels or oxbow lakes, hydric vegetation, and deposits of fine-grained sediment between duff layers or on the bark of hardwoods and conifers. The outer boundary of the flood prone area may be determined by field indicators such as the location where valley slope begins (i.e., where there is a substantial percent change in slope, including terraces, the toes of the alluvial fan, etc.), a distinct change in soil/plant characteristics, and the absence of silt lines on trees and residual evidence of floatable debris caught in brush or trees. Along laterally stable watercourses lacking a channel migration zone where the outer boundary of the flood prone area cannot be clearly determined using the field indicators above, it shall be determined based on the area inundated by a 20-year recurrence interval flood flow event, or the elevation equivalent to twice the distance between a thalweg riffle crest and the depth of the channel at bankfull stage. When both a channel migration zone and flood prone area are present, the boundaries established by the channel migration zone supersede the establishment of a flood prone area.

The THP proposes to utilize the 20-year floodplain as the extent of flood prone area. The Regional Water Board believes that this is based on an incorrect interpretation of the definition cited above. The primary qualifying definition is the *area contiguous to a watercourse channel zone that is **periodically flooded by overbank flow***. Use of the area inundated by the 20-year recurrence interval flow is a secondary identifier when other field indicators are lacking. That is not the case on the floodplain in the vicinity of the Little THP; the floodplain is a primary field indicator and its outer boundary is clearly defined by a distinct break in slope. There has been no argument put forth that the floodplain within the Little THP is not active. If it is an active floodplain, it is periodically flooded. In fact, hydrologist Matt O'Connor stated that essentially the entire floodplain between hillslopes falls within the elevation equivalent to twice the distance between a thalweg riffle crest and the depth of the channel at bankfull stage, which is the other secondary method used to delineate flood prone area. This method is recognized as delineating approximately the 40-50 year recurrence interval flood. We do not believe the FPRs regarding flood prone areas protects the area within the 20-year floodplain but excludes the 50-year floodplain.

While the Flood Prone Area Considerations paper clearly concluded that the most biologically critical flood prone area is that area inundated by the 20-year or less recurrence interval, areas on the floodplain above the 20-year flood height are not excluded from the FPR rule definition of flood prone area. The Regional Water Board acknowledges that there may be subtle relief on the floodplain that cannot easily be distinguished in the field that may result in portions of what appears to be floodplain actually being terrace. That could be determined with additional hydrologic analysis. However, that is not being asserted by the plan submitter.

As stated in previous Regional Water Board PHI reports for floodplain THPs in the Gualala River Watershed, most recently, our July 24, 2019 report for the Little THP, portions of the proposed plan located within floodplain and flood prone areas are considered particularly sensitive due to their important role in maintaining riparian functions and integrating hillslope and fluvial processes. Two beneficial uses included in the Basin Plan, Flood Peak Attenuation/Flood Water Storage (FLD) and Wetland Habitat (WET), most pertinent to flood prone areas are defined below:

Flood Peak Attenuation/Flood Water Storage (FLD) Uses of riparian wetlands in flood plain areas and other wetlands that receive natural surface drainage and buffer its passage to receiving waters.

Wetland Habitat (WET) Uses of water that support natural and man-made wetland ecosystems, including, but not limited to, preservation or enhancement of unique wetland functions, vegetation, fish, shellfish, invertebrates, insects, and wildlife habitat.

The Regional Water Board largely relies on the Forest Practice Rules for protection of beneficial uses. We were heavily involved in the Riparian Protection Committee and development of the Anadromous Salmonid Protection Rules for flood prone areas. We

support those rules as generally being protective of water quality, however, it is essential that the rules are correctly applied. We believe that as currently proposed, the rules for protection of flood prone areas are not being correctly interpreted or applied and therefore, we will likely not be able to make a determination that beneficial uses are being adequately protected.

It is the position of the Regional Water Board that, lacking further hydrologic analysis demonstrating that portions of what appears to be floodplain is not subject to periodic flooding, the floodplain within the Little THP meets the definition of flood prone area and should be designated as such in the THP (**Recommendation 1**).

Regional Water Board staff's previous PHI report for this plan, dated July 24, 2019, included the following recommendation:

As compensatory mitigation for any potential temporary impacts to seasonal wetland elements, the plan submitter shall develop and implement a plan to take actions aimed at eradicating the patch of *Arundo donax* growing on the right bank of the North Fork Gualala River adjacent to the appurtenant road.

Subsequent to submitting that recommendation, we have learned that the patch of *Arundo donax* is not growing on GRT's property but on an adjacent landowner's property. As such, the above recommendation from our July 24, 2019 report is withdrawn.

Waste Discharge Requirements

Following plan approval by CAL FIRE, and prior to beginning timber harvest activities, landowners must apply for coverage under the General WDRs ([Order No. R1-2004-0030](#)), the Categorical Waiver ([Order No. R1-2014-0011](#)), an individual waiver or WDR, or in some cases a Watershed-wide WDR. The following web link provides a copy of the Order:

http://www.waterboards.ca.gov/northcoast/water_issues/programs/timber_operations/

It appears likely that without inclusion of the recommendation above, Regional Water Board staff will not be able to make the determination that the THP will avoid or minimize both short term and long-term adverse impacts to beneficial uses of water.

Recommendations and comments are provided pursuant to the statutory authority contained in the Porter Cologne Water Quality Control Act (California Water Code Section 13000 et seq.), the Basin Plan, and the Z'Berg Nejedly Forest Practice Act (PRC Section 4582.6), and in accordance with the Forest Practice Rules 14 CCR 1037.5(f).

Recommendation:

1. In the absence of further hydrologic analysis demonstrating that portions of what appears to be floodplain is not subject to periodic flooding, the floodplain within

the Little THP meets the definition of flood prone area and shall be designated as such in the THP.