

**REFERENCE APPENDICES FOR APPEAL OF DIPSEA RANCH SUBDIVISION AND
MITIGATED NEGATIVE DECLARATION**

1. Department of the Interior, National Park Service March 6, 2017 Letter from Craig Kenkel Acting Park Superintendent to Planner, Jocelyn Drake.

The following is the letter from the National Park Service Acting Supervisor Craig Kenkel regarding the Redwood Creek Watershed impacts. Though the project has changed the Park Service inquiry was not addressed in the new iteration of the project that cumulatively has a potential capacity of 9+ units. There is no follow up letter in the files.

The NPS request was for an assessment of these issues and there is none in the files.

- Potential impacts to Redwood Creek Water quality during construction and following construction from additional residential homes in the community
- Potential impacts to Redwood Creek Steelhead trout and Coho salmon and habitat because of increased storm water runoff and sedimentation
- Potential for less than adequate stormwater improvements proposed for the subdivision access roads and driveways
- Need for a septic/sewage disposal plan designed to avoid impacts to the Watershed
- Potential adverse impacts to historic and prehistoric site and resources
- Potential to negatively impact visitors to Muir Woods National Monument and current residents in the local community with increased automobile traffic
- Potential to negatively impact the Monument's recreation values and visual resources

The NPS looks forward to providing more detailed comments when the CEQA analysis for the proposed project is released for public scoping. As noted in the Planning Commission's Dipsea Public Statement, the Marin County Board of Supervisors will not approve the project until it determines whether the project would have the potential to cause significant environmental impacts to resources within and adjacent to the project location. **The NPS requests the analysis to also include the potential for significant impacts to the Watershed and Downstream resources protected by the NPS in the Monument and at the end of Redwood Creek at Muir Beach.**

Acting Superintendent – Craig Kenkel.



United States Department of the Interior

NATIONAL PARK SERVICE
Golden Gate National Recreation Area
Fort Mason, San Francisco, California 94123

IN REPLY REFER TO
(GOGA-PL)

March 6, 2017

Marin County Planning Division
Attn. Jocelyn Drake
Senior Planner
3501 Civic Center Drive
Suite 308
San Rafael, CA 94903

Re: Dipsea Ranch Watershed Restoration, Affordable Housing, and Subdivision Master Plan
(Weissman), Project ID P1589

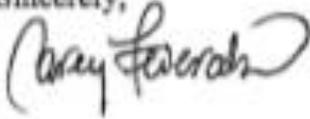
Dear Ms. Drake:

The National Park Service (NPS) appreciates the opportunity to offer comments on the proposed Dipsea Ranch Watershed Restoration, Affordable Housing, and Subdivision Master Plan. Due to the project's proximity to Muir Woods National Monument (approximately ½ mile), the Dipsea Trail, and potential impacts to sensitive resources in the Redwood Creek watershed (Watershed), the NPS has the following initial concerns that we hope your review process will address:

- Potential impacts to Redwood Creek water quality during construction and following construction from additional residential homes in the community
 - Potential impacts to Redwood Creek Steelhead trout and Coho salmon and habitat as a result of increased storm water runoff and sedimentation
 - Potential for less than adequate stormwater improvements proposed for the subdivision access roads and driveways
 - Need for a septic/sewage disposal plan designed to avoid impacts to the Watershed
 - Potential adverse impacts to historic and prehistoric sites and resources
 - Potential to negatively impact visitors to Muir Woods National Monument (Monument) and current residents in the local community with increased automobile traffic
 - Potential to negatively impact the Monument's recreational values and visual resources
-

The NPS looks forward to providing more detailed comments when the required California Environmental Quality Act analysis for the proposed project is released for public scoping. As noted in the Planning Commission's Dipsea Public Statement, the Marin County Board of Supervisors will not approve the project until it determines whether the project would have the potential to cause significant environmental impacts to resources within and adjacent to the project location. The NPS requests the analysis to also include the potential for significant impacts to the Watershed and downstream resources protected by the NPS in the Monument and at the end of Redwood Creek at Muir Beach. Please direct future correspondence for this project to Larry Miranda, Environmental Protection Specialist; (415) 561-4966, larry_miranda@nps.gov.

Sincerely,



for Craig Kenkel
Acting Superintendent

Cc: Bree Hardcastle, California Department of Parks and Recreation

MEMORANDUM OF UNDERSTANDING BETWEEN NATIONAL PARK SERVICE AND COUNTY OF MARIN JUNE 30, 2015.

This includes specific language that shows the County responsibility in the watershed.

<https://parkplanning.nps.gov/document.cfm?parkID=303&projectID=48272&documentID=70164>

ARTICLE 11- GOALS

The Parties enter into this MOU with the following goals:

1. To protect, preserve and enhance the health of Redwood Creek watershed, including its salmonids.

2. To reduce traffic congestion at Muir Woods, on Muir Woods Road and in the local communities adjacent to and leading to Muir Woods.

ARTICLE 12- OBJECTIVES

The Parties have agreed on the following action objectives:

G. To commence a process to upgrade and expand parking facilities on NPS property to reduce environmental impacts from current facilities and to relocate some of the parking currently downstream of the bridge.

H. To work together to improve water quality and environmental conditions for Redwood Creek and its fisheries.

1. To communicate about individual environmental compliance requirements within their responsibility, where applicable, including the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

TIMELINE of EVENTS

2003-Firesafe grant vegetation removal \$30,000

2007- Firesafe vegetation removal \$100,000

2009 Property purchased by Weissman

Property cleared along creeks (approximately 1500 linear feet)

2010 **Many** environmentally relevant documents about Redwood Creek Watershed given to Weissman

2011 Community defeats attempts to put sewers into community

2013 Weissman attempt to downgrade creek classification and letter to refute SCA policy proposal by County

2014 Unpermitted drains built in right of way by previous owner of 455, 469,471,473 Panoramic contribute to flooding at 446 Panoramic

2014 1200 Cubic Yard Fire Road Berm built, Red tagged after three weeks and BOS appearance of neighbors, Encroachment permit Rescinded

2015 Memorandum between County and NPS

2016 First Application of 13 units and subdivision, Weissman gets conditional approvals with no community notice and behind closed doors to bring sewer from LAFCO, Homestead Valley CSD. 150 people show up to protest project at Design Review Board.

2017 Property overgrown. National Park Letter to Planner Drake about unaddressed concerns of application.

2018 Re-application for subdivision and approval by TDRB with conditions

2019 **California** Dept. of Fish and Wildlife letter comments to Mitigated Negative Declaration

2020 Planning Commission Public Hearing

Appeal to Board of Supervisors

TRANSPORTATION - TRAFFIC

TRAFFIC ACCIDENTS IN THE DRIVEWAY OF THE PROPERTY NOT ADDRESSED



Figure 1. Car missed sharp turn and hit retaining wall within the entryway of 455 Panoramic Hwy.



Figure 2. Bumper and skid marks in driveway of 446 Panoramic after car ricocheted off 455 Panoramic Hwy. entryway wall, lost control, crossed Panoramic Hwy. hit eucalyptus tree 446 Driveway entrance, took out tree, posts, and fence and car was totaled.

2007 COUNTYWIDE PLAN AND EIR

INTRODUCTION:

2.1-1

“A responsibility to understand and protect the environment and agriculture is a fundamental component of this Element of the Countywide Plan. Reinforcing the critical role of watershed planning is an overarching concern.

Watershed functions, water quality, riparian habitat, wetlands, and baylands are all addressed in the Natural Systems and Agriculture Element. The topics addressed in this Element are interrelated, as are all the components of natural systems. Issues that threaten Marin County’s biodiversity—such as water quality degradation, invasive flora, non-native animal species, habitat fragmentation, and loss of sensitive biological resources as a result of land conversion and development—are also threats to agriculture and food production. How we treat streams, marshes, and wetlands not only affects the plants and animals that depend on these aquatic habitats, but also creates flood-related and other impacts in low-lying areas.”

OUR INTERPRETATION OF THE CWP

The countywide plan contains Policy CD-5.e, which states that when considering new development in areas where there is no sewer service, such as this, allowable density should be calculated “... at the lowest end of the... density range.” That is very specific.

The countywide plan is also clear that - only in cases of deed-restricted affordable housing projects, should the lowest density ever be exceeded. I need to point out here that accessory dwelling units do not qualify as affordable housing. So, it is clear. One unit per ten acres is the maximum density allowed by the Countywide plan, for this lot.

Keeping with the lowest possible density is for good reason. These reasons include the following:

- The Tam plan calls this specific parcel out as special, and states that it should remain “open in appearance”.

- The property is extremely steep and has multiple documented landslide deposits.
- The parcel is adjacent to protected open space and a National monument.
- It is an extremely fire prone location.
- The proposed building envelopes border stream conservation areas where endangered species are trying to make a resurgence.

Considering all of these site complications, as well as the clear guidance of the Countywide plan, it is obvious that this parcel is only appropriate for the lowest possible density, which is ten acres per unit, which would require a denial of this application.

[1] 2007 Marin Countywide Plan P. 3.4-23

CD-5.e Limit Density for Areas Without Water or Sewer Connections. Calculate density at the lowest end of the Countywide Plan density range for new development proposed in areas without public water or sewer service. Densities higher than the lowest end of the applicable density range may be considered on a case-by-case basis for new housing units affordable to very low and low income households that are capable of providing adequate water or sewer services, if the development complies with the California Environmental Quality Act and all other applicable policies in the Countywide Plan including, but not limited to, those governing environmental protection.

CWP 2.4-4 Biological Resources

Riparian Habitat. Riparian habitats are transitional zones between land and fresh water that occur along freshwater watercourses including perennial and intermittent streams, lakes, springs, and other bodies of fresh water. Riparian habitat is distinguished by characteristic woody vegetation, a variety of important ecological functions, and generally high wildlife habitat values.

Riparian Habitat Streams convey, filter, and store sediment and nutrients. Their floodplains are important for recharge of groundwater aquifers and flood prevention. They also provide critical wildlife movement corridors between important habitats for both aquatic and terrestrial species. Ephemeral channels are important for maintaining healthy watersheds. Perennial and intermittent streams provide more permanent aquatic habitat and serve as fish migration, spawning, and rearing habitat (see Map 2-4, Watersheds with Streams and Observed Steelhead Trout and Coho Salmon). Riparian vegetation is essential to proper functioning of stream systems and is a critical component of high-quality fish habitat. Woody vegetation provides shade that keeps water temperatures within tolerable ranges for fish and other aquatic organisms, stabilizes streambanks and floodplains, provides protective cover for wildlife, and contributes debris to stream channels for fish habitat structure. Herbaceous vegetation helps stabilize streambanks, and filters and traps sediments and pollutants. The continued health and restoration of streams and riparian resources has become an increasingly important policy objective with the designation of the coho salmon and steelhead trout as special-status species by the State and federal governments. Stream Conservation Area policies were strengthened with the adoption of zoning regulations that expand and refine the applicability of stream setback requirements for development projects that have the potential for harming riparian vegetation and water quality. Additional development review procedures and standards are established or recommended in policies for stream conservation as an ongoing effort to create a well-balanced regulatory approach to protecting these important resources. Policies for riparian protections also serve to prioritize land for restoration and open space acquisition.

Wetlands are protected for their high inherent value to fish and wildlife, their role as storage areas for storm and floodwaters, and their water recharge, filtration, and purification functions (see Map 2-3, Wetlands/Streams). They provide essential habitat for aquatic invertebrates,

amphibians, and fish; are important for large numbers of bird and mammal species; and are an important source of drinking water for terrestrial species. Characteristic wetland types in Marin include coastal saltmarsh, brackish marsh, freshwater marsh, the lower channel slopes of streams and riparian habitat, seasonal wetlands, vernal pools, and freshwater seeps and springs.

Proposed modifications to wetlands are regulated through a complex jurisdictional and permitting process of State and federal agencies, depending on the type, location, and functions and values of the existing wetlands. In general, loss or modifications to wetlands must be avoided given the difficulty and questionable success of re-creating wetlands, and the length of time required to replace habitat lost as a result of development. At a minimum, project applicants must demonstrate compliance with State and federal wetlands regulations.

TAMALPAIS COMMUNITY PLAN - REFERENCE ENTIRE PLAN AND APPENDICES

1992 Tamalpais Community Plan

https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/communityandareaplan/tamalpais_are_a_community_plan_1992.pdf

As per the Tamalpais Community Plan from 1992, there is specific language:
Muir Woods Park (Figure 12)

The Muir Woods Park area has many forested, undeveloped parcels in close proximity to Mount Tamalpais State Park (some of which are highlighted on Figure 12), Muir Woods National Monument and the lands of the Marin Municipal Water District. These areas should be considered for open space acquisition and for careful growth control to prevent harm to parklands from development.

Tamplan: Landuse.doc

III - 29

1992 Tamalpais Community Plan Appendices:

https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/communityandareaplan/tamalpais_are_a_community_plan_appendices.pdf

P.2-4 The Tamalpais Area Community Plan states that “the County will consider programs to acquire the many forested undeveloped parcels in close proximity to Mt. Tamalpais State Park, Muir Woods National Monument and the lands of MMWD...

In the event that acquisition is not feasible, the County will implement design guidelines to ensure that new development does not harm the park or water district lands” (Marin County 1992).

P. 3-2

Several important issues with relevance to watershed planning are associated with human habitation in the watershed: septic systems, accelerated runoff and soil erosion, congestion on area roads, water use, and introduction of non-native plants and animals. All houses in the watershed, excepting those in Muir Woods National Monument, currently operate on septic systems, and problems with overloaded or poorly sited septic fields are noted in community plans. Further development, including redevelopment to larger residences, is expected to exacerbate these problems. Similarly, increasing development, home sizes, paving of roads and driveways, and removal of native vegetation also are expected to increase water runoff and the potential for soil erosion and water pollution. NPS water quality monitoring occasionally has found Redwood Creek bacteria levels to exceed state standards for human contact and elevated

nitrogen levels. Problems with traffic congestion also are exacerbated by full-time residents in the watershed, caused by the area’s narrow and winding road system. Watershed residents make numerous daily trips, but what proportion of total traffic they represent is unknown. A traffic study is warranted.

TACP Appendix H -
Individual Waste Disposal
Systems in Muir Woods
Park

PS.3 Retain individual waste disposal systems in the Muir Woods Park neighborhood.

PS3.1a Permit existing dwellings with failing or marginal septic systems to; a) Use alternative methods of sewage disposal, b) Join a contracted septic system maintenance program, c) Hook up to an existing public sewerage system, where feasible, without forcing neighborhood annexation.

POST CONSTRUCTION IMPACTS

PLANNING APPLICATION INTER-OFFICE MEMO between Berenice Davidson and Jocelyn Drake Planner to grandfather unpermitted “fire road” into next application prior to there being an application – FIRST TRANSMITTAL 3/29/18

APPLICATION CITES INCOMPLETENESS ITEMS on plans

1. Stormwater Control Plan
 - a. “Stormwater Control Plan for a Regulated Project” BASMAA Post Construction (MCSTOPPP)
 - b. Direct discharge of stormwater runoff from conveyance pipe P3 to Panoramic Highway right-of-way shown on Drainage Plan is not allowed. Proposed drainage plan must maintain existing drainage patterns along Panoramic Highway.
2. Geotechnical update for retaining walls
3. Peak run off calculations
4. Site distance issues. Traffic

CUMULATIVE IMPACTS AND REDWOOD CREEK WATERSHED WIDE RESTORATION AND RECOVERY PLANS

PACIFIC WATERSHED ASSOCIATES STUDIES
SUMMARY REPORT 2000 S.B. 271 WATERSHED ASSESSMENT AND EROSION PREVENTION PLANNING PROJECT FOR THE REDWOOD CREEK WATERSHED, MARIN COUNTY, CALIFORNIA CONTRACT # P9985121

1. <https://www.nps.gov/goga/getinvolved/upload/PWA-Redwood-Creek-2002-Erosion-Prevention-Plan-5.pdf>
2. Golden Gate National Recreation Area Redwood Creek Watershed, Muir woods Road and Trail Re-evaluation and Assessment, Marin County CA Report No. 171024403 August 2017 <https://www.nps.gov/goga/learn/management/upload/2017-RCW-and-MUWO-Road-Trail-Reevaluation-Assessment-CONDENSED.pdf>
Pages 5,6, 14 w/photos, Appendix –A-2:

Conlon reach tributary that connects to Redwood Creek mainstem is addressed and impacted by the Dipsea Ranch Project.

CENTRAL CALIFORNIA COAST COHO SALMON RECOVERY PLAN (FOCUS POPULATION – REDWOOD CREEK)

https://archive.fisheries.noaa.gov/wcr/publications/recovery_planning/salmon_steelhead/domains/north_central_california_coast/central_california_coast_coho/overview_i.pdf

3.0 Overview of the CCC Coho On the Brink of Extinction

pages 77, “Additionally, the impervious surfaces in urbanized areas cause increased water run-off resulting in higher winter flows, lower summer base flow, (as well as the introduction of hydrocarbons and garbage) into the stream systems. CDFG has documented unauthorized and illegal summer and fall water diversions are a serious concern and many previously perennial streams are now dry in late summer (Harris, S. pers. comm. 2009). Strategies to address this limiting factor are often difficult to implement but will be necessary to begin coho salmon recovery in many of the targeted watersheds in the ESU.” Page 80 “Gravels with high concentrations of fine sediment can substantially reduce egg survival. Phillips et al. (1975) found survival to emergence was only eight percent where gravel/sand mixtures were 70 percent (particle size < 3.3 mm). Fine sediment originates from many anthropogenic activities including agriculture, livestock grazing, urbanization, roads, forestry, mining as well as natural processes such as landslides, streambank erosion, and fire.

Minimizing anthropogenic sources of fine sediment is readily achievable when riparian buffers of sufficient size persist along stream channels, culverts are adequately sized and properly located, development or extractive land management practices are avoided on unstable areas, cover crops are left during the winter, roads are properly maintained, etc.”

https://archive.fisheries.noaa.gov/wcr/publications/recovery_planning/salmon_steelhead/domains/north_central_california_coast/central_california_coast_coho/redwood_ii.pdf

STILLWATER SCIENCES: REDWOOD CREEK WATERSHED ASSESSMENT FINAL REPORT

https://www.nps.gov/goga/getinvolved/upload/RCWA_FINAL.pdf

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In the event that acquisition is not feasible, the County will implement design guidelines to ensure that new development does not harm the park or water district lands” (Marin County 1992).

Table G-1 Page 330 RE: Conlon Canyon and Headwater Tributaries.

The project of Dipsea Ranch, that is within the Conlon Reach that is mentioned in the Stillwater 2011 Redwood Creek Watershed Study, says this:

P.2-4 The Tamalpais Area Community Plan states that “the County will consider programs to acquire the many forested undeveloped parcels in close proximity to Mt. Tamalpais State Park, Muir Woods National Monument and the lands of MMWD...

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KNOWN DATES AND INDIVIDUALS CONDUCTING SITE VISITS

We have found no indication that the biologists followed the CDFW survey protocols for NSO.

All the biologists came in the day time (No ornithologists) so they did not utilize night calling. Some were looking at specifically hydrology. Jennifer Michaud wrote the biological section of the IS/MND – there is no separate report or notes available online.

Visit 1- September 14, 2009 Rebecca Doubledee (LSA)

Visit 2 - April 9, 2015 - Malcolm Sproul (LSA principal biologist)

Visit 3 - May 6, 2015 - David Muth (LSA herpetologist)

Visit 3 - Sept. 22, 2015 - David Muth(LSA)

Visit 4 - Sept. 20, 2017 - David Muth (LSA)

Visit 5 - Around May 1, 2019 10 AM - Jennifer Michaud, Prunuske Chatham

Visit 6 - Around March 13, 2019 - Justin Taplin, Peter Hudson

REFERENCES FOR WILDLIFE CORRIDORS (partial):

Citations

Beier, P. 1993. Determining minimum habitat areas and habitat corridors for cougars. *Conservation Biology* 7:94-108.

Beier, P. and S. Loe. 1992. A checklist for evaluating impacts to wildlife movement corridors. *Wildlife Society Bulletin* 20:434-440.

Bolger, D. T., A. C. Alberts, R. M. Sauvajot, P. Potenza, C. McCalvin, D. Tran, S. Mazzoni, and M. E. Soule. 1997. Response of rodents to habitat fragmentation in coastal Southern California. *Ecological Applications* 7:552-563.

Perault, D. R. and M. V. Lomolino. 2000. Corridors and mammal community structure across a fragmented, old-growth forest landscape. *Ecological Monographs* 70:401-422.

Rosenberg, D. K, B. R. Noon, and E. C. Meslow. 1997. Biological corridors: Form, function, and efficacy. *BioScience* 47:677-687.

Schweiger, E. W., J. E. Diffendorfer, R. D. Holt, R. Pierotti, and M. S. Gaines. 2000. The interaction of habitat fragmentation, plant, and small mammal succession in an old field. *Ecological Monographs* 70:383-400.

Brinson, M.M., B.L. Swift, R.C. Plantico, and J.S. Barclay. 1981. "Riparian ecosystems: Their ecology and status." US Fish and Wildlife Service Report, OBS-81/17.

Manci, K.M. 1989. "Riparian ecosystem creation and restoration: A literature summary." US Fish and Wildlife Service Biological Report, 89(20):1-59.

Netusi, N.R. 2006. "Economic valuation of riparian corridors and upland wildlife habitat in an urban watershed." Journal of Contemporary Water Research & Education, 134: 39-45.

VALUE OF RIPARIAN ECOSYSTEMS

Social and Economic Value of Riparian Environments

"In addition to providing wildlife habitat, riparian areas provide other very valuable ecosystem services as well. Riparian (streamside) forests act as "living filters" that intercept and absorb sediments, and store and transform excess nutrients and pollutants carried in runoff from adjacent lands. These excess nutrients and pollutants include salts, sediments, organic wastes, pesticides, and other pollutants running into our streams and, ultimately, our drinking water. Riparian areas can reduce the nitrogen concentration in water runoff and floodwater by up to 90 percent and reduce the phosphorous concentration by as much as 50 percent. Excess nitrogen and phosphorous, both substances that compose animal wastes, manufactured fertilizers, and other commonly encountered compounds, promote the overgrowth of algae and undesirable weeds. The economic worth of these living filters in improving water quality is difficult if not impossible to measure. The fact that the US spends more than \$2 billion annually for clean water initiatives is an indicator of the value of clean water."

Greg Jones, PhD, is a research forester with the RMRS Forestry Sciences Laboratory, Missoula, Montana.

NORTHERN SPOTTED OWLS

PROTOCOL FOR SURVEYING PROPOSED MANAGEMENT ACTIVITIES THAT MAY IMPACT NORTHERN SPOTTED OWLS Endorsed by the U.S. Fish and Wildlife Service February 2, 2011

Revised January 9, 2012

<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83977&inline>

The allowable decibel levels during construction seem higher than those recommended by USFWS.

<https://www.fws.gov/Arcata/es/birds/MM/documents/MAMU-NSO%20Harassment%20Guidance%20NW%20CA%202006Jul31.pdf>

References (partial):

1. Department of the Interior Fish and Wildlife Service, 50 CFR Part 17 *Endangered and Threatened Wildlife and Plants; Designation of Revised Critical Habitat for the Northern Spotted Owl*; Final Rule Federal Register Vol. 77 Tues, No. 233 December 4, 2012 Marin Municipal Water District land is considered Critical Habitat, a mile from the property. State Park is not listed because of extra costs they would incur.
2. Final NSO status review with transmittal memo: State of California Department of Fish and Wildlife, February 10, 2016, Charles H. Bonham, Director *Status review of Northern Spotted Owl – Listed threatened*
3. *Appendix B. Northern Spotted Owl Sound and Visual Harassment Decision Support Tools DRAFT USER GUIDE* Version 1.12 MARCH 2004

NORTHERN SPOTTED OWLS & MARBELED MURRELETS (MM)

The Master Document erroneously states that there is no habitat for either NSO or Marbeled Murrelets but a protocol level survey was not conducted.

CDFW: The southern limit of the owl's range in Marin County (part of the California Coast Province and the RDC region) contains coast redwood, Bishop pine (*Pinus muricata*) and Douglas-fir forests and mixed evergreen-deciduous hardwood forests (e.g., California bay, tanoak and coast live oak) which are regularly used by Northern Spotted Owls (Jenson et al. 2006, USFWS 2011). Stralberg et al. (2009) found that owls inhabiting Marin County mixed forests were equally likely to be found in conifer dominated stands or hardwood dominated stands, and there did not seem to be a preference for any one tree species for owl nest sites.

(P. 24, 82 STATUS REVIEW OF NORTHERN SPOTTED OWL 2016) (see notes).

Northern Spotted Owl habitat losses are expected from implementation of the FMP due to timber harvest, urban development, road construction, and prairie restoration.

ALLOWABLE DECIBEL LEVEL INFORMATION IS INACCURATE by allowing high level stressors FOR NSO'S during construction

Biological report is wholly insufficient to determine the presence of certain species and the project impacts.

In the Letter from California Department of Fish Wildlife, Erikson states:

“Northern Spotted Owl threatened species pursuant to CESA and ESA is known to occur in the vicinity of the project. Noise and activities at the project site could potentially disturb NSO during nesting season and interrupt breeding or lead to nest failure. Population levels and vital rates for NSO continue to decline CDFW 2016 Report to Fish and Game Commission: A Status Review of Northern Spotted Owl in California.”

The allowable decibel level sanctioned in project plan is higher than would be allowed under U.S. Fish and Wildlife Service. We have described this and provided link to study from U.S. Fish and Wildlife which proves that the allowable levels would be exceeded. Without access to the known location of sites we submit maps of the area that are approximately 10 years old that show NSO habitat contained within the property.

Also, we note that NSO nesting habitat in Marin County is known to be in mixed hardwood and conifer forests. See: BFFIP Appendix F Marin Municipal Water District and USFWS ESA listing NSO.

Point Blue Conservation Science: Full citation redacted for species protection.

“NSO in Marin County are not impacted by commercial tree harvesting operations as in other parts of their range, but they face other unique threats including urban development, human disturbance due to construction and/or recreational activities, noise disturbance, rodenticide poisoning, risk of wildfires along the urban-wildland interface, and genetic isolation (Stralberg et al. 2009).”

BIODIVERSITY, FIRE, AND FUELS INTEGRATED PLAN CALIFORNIA ENVIRONMENTAL QUALITY ACT Marin Municipal Water District

(lands of MMWD are in the Redwood Creek Watershed and therefore the entire study is relevant)

<https://www.marinwater.org/DocumentCenter/View/7003/BFFIP-Appendix-F>

APPENDIX F: Biological Resources Supporting Information
Northern Spotted Owl Memo Summary Report for the 2014

Photo Interpretation and Floristic Reclassification of Mt. Tamalpais Watershed Forest and Woodlands Project

Birds Known or Likely to Occur on MMWD Lands

Butterflies Possibly Occurring on MMWD Lands

Reptiles and Amphibians Known or Likely to Occur on MMWD Lands

Mammals Possibly Occurring on MMWD Lands

NORTHERN SPOTTED OWLS (NSO) AND MARBELED MURRELET

(I) SUMMARY OF HABITAT AFFINITIES AND BEHAVIOR Habitat affinities

The ecological requirements of the NSO have been carefully studied and are well documented, although most of those studies have focused on more northerly forests with higher rainfall and less equable climate than in Marin County (Gutierrez, Franklin and Lahaye 1995) (U.S. Fish & Wildlife Service 2011) (U.S. Fish & Wildlife Service 2012a). According to those studies, the NSO is found most commonly in old growth forest or mixed stands of old-growth and mature conifers, usually 150-200 years old (Shuford 1993). The owls select older forest because a multi-layered, closed canopy provides a variety of roosting opportunities and therefore aids in thermoregulatory behavior under differing weather conditions. The habitat associations of NSO differ somewhat in Marin County, however, which is located at the southern limit of the species' distributional range. In Marin County, NSO may be found in younger forest stands that contain structural characteristics of older forests. Locally, habitat may be provided by mature redwood-fir-pine forests as well as mixed hardwood associations. Live-oak woodlands with closed canopies may also be used as roost sites and occasionally selected for nest sites (Shuford 1993, Stralberg et al. 2009, NPS files). However, here as in other areas, NSO select forests with a nearly closed canopy and moderate undergrowth with a high component of woody debris, at least in some portion of their territory. Most of the local owl territories are in canyon bottoms or mid-slope locations and often include small perennial watercourses. In the Stralberg modeling study (2009), topographic conditions were the strongest predictors of owl nest-site occurrence, with occupied sites lower in the watershed and more south-facing than unoccupied sites. The importance of slope orientation may be explained by a variety of factors, including susceptibility to heat stress, predator avoidance, prey abundance and availability, and nest structure availability. Exposure is an important component of suitable habitat, with ideal nesting habitat providing shelter from the predominant northwesterly winds of spring and summer. Ridgetops are generally avoided and lower elevations, protected from prevailing spring winds, usually preferred for nesting. Behavior NSOs are non-migratory and commonly occupy the same home range year-round (Gutierrez et al. 1995). Typically, NSOs form long-term pair bonds and share the same territory (Forsman et al. 1984). They are philopatric (site faithful) to nest sites and activity centers and because territories are usually occupied over successive years by nesting pairs, sites occupied in previous years are commonly occupied in subsequent years. The nesting period in Marin (and Unit 3, the Redwood Coast region) spans February 1 through August 31 to encompass pair formation, nest selection, nest building, incubation, provisioning and fledging of young (Press et al. 2010). Young are independent by late summer and disperse from natal areas by September/October (Gutierrez et al. 1995). Based on a study of 195 nest sites in Marin (Jensen et al. 2006), nests are in a variety of tree species (most commonly Redwood and Douglas fir). Dusky-footed Woodrats (*Neotoma fuscipes*) are a primary prey species in Marin, comprising approximately 50 percent of the prey base.

(ii) NSO DISTRIBUTION IN THE PROJECT AREA The distribution of NSOs within the District watershed (and adjacent public lands) is well-documented based on protocol-level surveys conducted by various researchers (National Park Service, Point Blue Conservation

Science, Avocet Research Associates, etc.) on a nearly annual basis, 1999 to present. A compilation of multi-year data, provided by the National Park Service, was used to generate Figure 1. The polygons in the figure represent NSO activity centers and were created by drawing a polygon around NSO occurrences documented between 1999 and 2017 that were clustered in a general area. The polygon also includes a 0.25 mile around the activity center polygon, which serves to identify areas in which BFFIP management activities could occur within 0.25 mile of an activity center. Although NSOs do not necessarily nest annually, they usually occupy the same habitat in non-nesting years as in nesting years and protection of these areas is critical to the future reproductive success of the owls; therefore all activity centers with multiple occurrences are considered 'occupied habitat' regardless of nesting status in a given year.

- (II) (ii) EVALUATION OF POTENTIAL IMPACTS TO NSO HABITAT Approach For the purposes of this evaluation, we focus on "activity centers" of NSOs to identify occupied habitat but also consider the impacts of the BFFIP on "foraging habitat." Definitions of each habitat type are provided in the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011, 2012b): Activity Center: Spotted owls have been characterized as central-place foragers, where individuals forage over a wide area and subsequently return to a nest or roost location that is often centrally-located within the home range (Rosenberg and McKelvey 1999). Activity centers are a location or point representing "the best of detections" such as nest stands, stands used by roosting pairs or territorial singles, or concentrated nighttime detections. Activity centers are within the core use area and are represented by this central location. Foraging Habitat: Foraging habitat is defined as lands that provide foraging opportunities for spotted owls, but without the structure to support nesting and roosting (USFWS 1992). Spotted owls often forage in forest conditions that meet the definition of nesting/roosting habitat, but also use a broader range of forest types for foraging. This definition identifies habitat that functions as foraging habitat, but does not meet requirements for nesting or roosting. The NSO data set from the combined years of protocol-level surveys was used to identify the activity centers represented in Figure 1. As shown, much of the proposed fuelbreak expansion would occur at distances of greater than 0.25 mile of a NSO activity center; therefore, such activities would have little to no effect on NSO habitat use. However, there are new fuelbreaks proposed within 0.25 mile of a NSO activity center (Figure 1), and maintenance of existing fuelbreaks could also occur within 0.25 mile of an activity center. Additionally, portions of the Ecosystem Restoration/WAFRZ contain NSO activity centers or are within 0.25 mile of an NSO activity center (Figure 1). Therefore, fuelbreak expansion and maintenance, and management activities within the Ecosystem Restoration/Wide Area Fuel Load Reduction Zones could occur in habitat used by NSO. To develop an understanding of the types of management activities that could take place in potential NSO habitat, a field reconnaissance of representative sites in which BFFIP management activities would occur was conducted on May 24, 2017 by Seth Bunnell (Avocet Research) and Josh Phillips (Pacific Biology). Mr. Brunnell and Mr. Phillips were accompanied by District and Panorama Environmental staff who provided an overview of the proposed management activities that would occur at different locations. It should be noted that only four (4) representative sites were visited, and that all proposed management areas within potential NSO habitat were not evaluated. Therefore, the focus of the assessment was to generally assess how the proposed management activities could alter NSO habitat. Overview of Types of Impacts to Occur in or Near NSO Habitat In general, the proposed BFFIP woodland treatments are aimed at removing the flammable understory vegetation to reduce the overall fuel load, as well as to decrease the chance of a crown fire and to preserve the woodland by removing ladder fuels. The shaded forest understory will be opened as shrubs are removed and smaller herbaceous plants and ferns are retained. More specifically,

the following proposed BFFIP management actions could occur in an NSO activity center or within 0.25 mile of a NSO activity center:

Across the street from the project (WAM headquarters) identified several Dusky footed wood rat (DFWR) nests (8). They are not mentioned DFWR in the Biological report so do NOT know if they were looking for them. Yet, 50% of NSO diet is made up of DFWR. Spotted owls heard outside 446 Panoramic Hwy office, two acres almost all trees & mature Doug Firs and Redwoods, Oaks, Bays, Pines, Eucs.... etc. and riparian (willow & blackberry) and though biologists said they looked at surrounding properties they did not look at this property –30 feet away.

Also, the LSA letter from Oct 9, 2015 states that there is no suitable habitat present on the site. However, the dense hardwood stands are known to provide nesting habitat for NSO's in Marin County (2009 USFWS)

U.S. FISH AND WILDLIFE SERVICE NORTHERN SPOTTED OWL

https://www.fws.gov/arcata/es/HCP/6_Received%20public%20comments/20180906_1238_5_Att.%204EPIC%20DEIS%20Comments.pdf

Chapter 4: Northern Spotted Owl Habitat and Populations: Status and Threats Damon B. Lesmeister, Raymond J. Davis, Peter H. Singleton, and J. David Wiens1
PAGE 245

In the southern portions of the range, abiotic environmental factors begin to play larger roles in territorial owl use (Glenn et al. 2017), and at the very southern end of the range (Marin County, California), spotted owls occur at higher densities and tend to nest in a wider variety of forest cover types and ages (Stralberg et al. 2009). The difference in localized spotted owl densities and generalist vegetation associations appear to be driven by the diversity of forest conditions and high prey density prevalent in that landscape.

Stralberg, D.; Fehring, K.E.; Pomara, L.Y.; Nur, N.; Adams, D.B.; Hatch, D.; Geupel, G.R.; Allen, S. 2009. Modeling nest-site occurrence for the northern spotted owl at its southern range limit in central California. *Landscape and Urban Planning*. 90(1–2): 76–85.

APPENDIX B: NORTHERN SPOTTED OWL SOUND AND VISUAL HARASSMENT DECISION SUPPORT TOOLS 2004 DRAFT USER GUIDE VERSION 1.2 MARCH 2004

Albert, C.A.; Wilson, L.K.; Mineau, P.; Trudeau, S.; Elliott, J.E. 2010. Anticoagulant rodenticides in three owl species from western Canada, 1988–2003. *Archives of Environmental Contamination and Toxicology*. 58(2): 451–459. doi:10.1007/s00244-009-9402-z.

5.3 Survey Procedures - Both nighttime and daytime surveys are recommended. Research data indicate that nighttime calling remains an efficient way of detecting spotted owls. In addition, some recent research data along with professional opinion by research personnel suggest that strategic daytime surveys are also an effective way for locating spotted owls. Thus, this protocol advises the use of both under certain situations, as described in “Daytime Stand Searches” (see section 13.0) below. Three types of surveys are accepted: spot calling, continuous walking and calling, and leapfrog surveys. Each is described below. Spot calling is the recommended method. Whatever method you use, be sure you cover all spotted owl habitat within the survey area. 5.3.1 Nighttime Spot Calling Set up a series of fixed calling points approximately 0.25 to 0.5 mile apart or as needed to account for local acoustical conditions, along road, trails and/or transects. When possible, pick prominent points which allow coverage of large areas. Spend at least 10 minutes at each point. Topography with prominent features (e.g., high ridges, road landings situated above large drainages, etc.) may lend itself to more effective coverage. Whatever the

topographic situation, be sure that you have sufficient overlap in calling coverage from point to point, whereby you are able to hear responding owls and that all spotted owl habitat within the entire survey area is adequately covered. 5.3.2 Continuous Walking Surveys Continuous walking surveys occur during the night or day and are utilized when nighttime spot calling from roads or trails cannot be accomplished. Walk the designated route playing the electronic caller and pause at prominent points and at regular intervals throughout the area to conduct informal stations that are at least 3 minutes in duration. 5.3.3 Leapfrog Surveys (Nighttime) If two people are involved, you may use a leapfrog method along roads (see Forsman 1983)

ALL OTHER SPECIES

RINGTAIL CAT

For further verification, Ringtail cat sightings in the Mt. Tam State park, adjacent to the Dipsea Ranch owner's property were also confirmed by State Park Ranger Tom Frazer. 415 388-3653 (in person conversation week of 9/15/20 at Alice Eastwood Road). Laura Chariton and Douglas Ullman of 446 Panoramic Hwy. 30 feet away have also seen ringtail cat three times in early fall of 2019 on their property and coming from the direction of the Dipsea Ranch property.

Before the applicant built the road on the wetland neighbor documented Great Blue Heron's hunting in the wetland – See Lotic Environmental Hydrology Report Page 11.

Other Birds observed in the Area (See previous WAM Comments document from 1/27/20. They observed Oak titmouse special status species that are often seen on 446 Panoramic Hwy.

We've documented around 60 species of birds at 446 Panoramic Hwy. area over the last 28 years.

COHO AND STEELHEAD SALMON:

U.S. FISH AND WILDLIFE SERVICE COHO AND STEELHEAD SALMON

https://archive.fisheries.noaa.gov/wcr/publications/recovery_planning/salmon_steelhead/domains/north_central_california_coast/central_california_coast_coho/overview_i.pdf

P. 66 Estuarine juveniles are scarcer in California as most small estuaries are shallower and warmer than they were historically due to sedimentation and reduced water flow from anthropogenic factors such as urban development and agriculture (Moyle 2002).

P. 76-77 Lack of water is a severe limiting factor for coho salmon in many watersheds in the CCC ESU. Impacts from ongoing water diversions are most severe in the more urbanized watersheds, and watersheds with a large percentage of agricultural development and diversions. California's Mediterranean climate results in low flow conditions during the summer and late fall rearing periods. Water diversions during the summer rearing period magnify the impact of natural low flows with pronounced impacts to juvenile survival. Frost protection for vineyards can create instantaneous flow reductions that leave salmon stranded on a drying stream bed. Final CCC Coho Salmon ESU Recovery Plan (Volume I of III) September 2012 3.0 Overview of the CCC Coho Salmon ESU 77 Additionally, the impervious surfaces in urbanized areas cause increased water run-off resulting in higher winter flows, lower summer base flow, (as well as the introduction of hydrocarbons and garbage) into the stream systems. CDFG has documented unauthorized and illegal summer and fall water diversions are a serious concern and many previously perennial streams are now dry in late summer (Harris, S. pers. comm. 2009). Strategies to address this

limiting factor are often difficult to implement but will be necessary to begin coho salmon recovery in many of the targeted watersheds in the ESU. Instream Temperature Summer rearing coho salmon are sensitive to warm water temperatures. Optimal growth occurs when instream temperatures average 12-14° C. When maximum weekly average temperatures exceed 18° C, coho salmon are absent from otherwise suitable rearing habitat (Welsh et al. 2001). Temperatures exceeding 25-26°C are lethal to coho salmon. Altered thermal regimes change many characteristics of stream habitat by changing the structure of plant and invertebrate communities (Bisson and Davis 1976), and adverse interspecific interactions between salmon and non-salmon fishes through increased competition and predation (Reeves et al. 1987).

P. 80 To ensure survival from spawning to emergence, the gravels must be relatively free of fine sediment. Clean gravels facilitate, via intragravel flow, a supply of oxygen rich water to the eggs and newly hatched sac fry and help ensure that metabolic waste is removed. Gravels with high concentrations of fine sediment can substantially reduce egg survival. Phillips et al. (1975) found survival to emergence was only eight percent where gravel/sand mixtures were 70 percent (particle size < 3.3 mm). Fine sediment originates from many anthropogenic activities including agriculture, livestock grazing, urbanization, roads, forestry, mining as well as natural processes such as landslides, streambank erosion, and fire. Minimizing anthropogenic sources of fine sediment is readily achievable when riparian buffers of sufficient size persist along stream channels, culverts are adequately sized and properly located, development or extractive land management practices are avoided on unstable areas, cover crops are left during the winter, roads are properly maintained, etc.

NOAA National Marine Fisheries Service coho salmon listing endangered:

<https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/central-california-coast-coho-salmon>

PROJECT Impacts to Groundwater

Stormwater diversions and loss of permeability were not studied or analyzed in the MND and these are known adverse impacts to salmon. Water temperature, oxygen, healthy sediment transport and water quantity are primary issues that have not been provided in the MND.

Galloway, J., Fox, A., Lewandowski, J. et al. The effect of unsteady streamflow and stream-groundwater interactions on oxygen consumption in a sandy streambed. *Sci Rep* 9, 19735 (2019).

<https://doi.org/10.1038/s41598-019-56289-y>

<https://www.nature.com/articles/s41598-019-56289-y>

POPULATION REPORT FROM NATIONAL PARK SERVICE

Winter 2019-2020 adult coho and steelhead spawner survey results:

Redwood Creek salmonid survey 9/18/20 <https://www.nps.gov/articles/000/2019-2020-coho-steelhead-spawner-survey-summary.htm>

Table J-1. Tier Three Prioritization Scoring for Action Issues

Sum Tier 3 score	Issue number	Issue description (in order of priority based on Tier 1 and 2 scores)	Scoring (1-3)**			Notes	
			Funding sources and costs (F&C)	Technical feasibility (TF)	Community support (CS)		
8	Issue 7	<p>Increase flood capacity in existing culverts <i>Summary:</i> Numerous culverts through the watershed have insufficient capacity to pass flood flows, resulting in local upstream flooding, downstream hydraulic erosion, potential culvert failure and site erosion, and impacts on sediment delivery to downstream aquatic systems. MMWD has addressed several of the undersized culverts within their jurisdiction, but more needs to be accomplished on these and other lands in the watershed. Existing studies have identified specific sites in need of improvement. <i>Benefits:</i> Local and downstream aquatic habitat; reduced cumulative sediment loading; improved roadways and passage <i>Primary Actions:</i> Identification and replacement of undersized culverts through funding and multi-agency commitment</p>	2	3	3	<p>F&S: Multiple funding sources could be identified to address the problem. TF: This is technically feasible. CS: Local and out of area users would be in support of this project.</p>	
8	Issue 29	<p>Reduce habitat fragmentation associated with trails, roads and development <i>Summary:</i> Existing land uses, trails, fire roads, lack of wilderness areas, invasive species and fire suppression all contribute to habitat fragmentation for both plant and animal species. <i>Benefits:</i> Native wildlife and plant species <i>Primary Actions:</i> Analyze and map wildlife and native plant species use of potential corridors and determine locations for successful corridor design/placement; implement findings and monitor to ensure population dispersal occurs.</p>	2	3	3	<p>F&S: This might not be an expensive project but it would require funding. TF: This is technically feasible CS: Local and out of area users would be in support of this project.</p>	
7	Issue 4	<p>Quantify and reduce high potential sediment yields resulting from human actions in tributaries, including Conlon Canyon <i>Summary:</i> Excess sediment from headwater areas, partly derived from human activities, has the potential to cause short-term sediment pulses or long-lasting periods of aggradation which may adversely affect downstream restoration actions and aquatic habitat <i>Benefits:</i> Water quality, fish and amphibian species, aquatic habitat <i>Primary Actions:</i> Perform study to establish tributary sediment yields in exceedance of natural rates and actions or changes in land use that reduce inputs. Developing Best Management Practices for sediment conservation; second stage involves implementing these actions or land use changes. Perform in coordination with geomorphology baseline study.</p>		1	3	3	<p>F&S: This might be an expensive project but it would require funding. TF: This is technically feasible CS: Local and out of area users would be in support of this project.</p>

J-4

NOAA Institutional Repository: 2016 5-Year Review: Summary & Evaluation of Central California Coast Coho Salmon National Marine Fisheries Service West Coast Region April

<https://repository.library.noaa.gov/view/noaa/17797>

Pages 18-19

Regarding impacts to Coho in the 2016

...truly significant improvement will likely prove elusive until all properties are required to adhere to scientifically justified riparian buffer widths.

Urbanization

Much of the CCC coho salmon ESU overlaps with the greater San Francisco Bay Area, a relatively

densely populated area that has experienced steady population growth during the past several decades. As result, many important coho salmon watersheds that overlap with dense urban areas, such as the Russian and San Lorenzo rivers, continually suffer aquatic habitat degradation resulting from urban stressors. As natural open space is transformed into urban neighborhoods, several hydrologic and aquatic habitat impacts predictably follow. Much of the existing bare soil is replaced by impervious surfaces (e.g., pavement, structure roofs, etc.), causing rapid runoff of precipitation and shorter, more intense flood flows. Furthermore, urban development often encroaches onto the floodplain of creeks and rivers, destroying riparian and floodplain habitat important to fish during high flow events, and limiting natural hydraulic/geomorphic processes that create and maintain complex instream habitat. Both point and non-point pollution increases

as oils, chemicals (e.g, fertilizers, pesticides, etc.) and other urban pollutants wash into streams following precipitation events. All of these impacts existed at the time of listing and, due to population growth, have likely worsened since. Although more and more local governments are now attempting to consider the environment in their management and development decisions, urban-related impacts are likely to worsen in the future as the Bay Area population grows by a predicted 30% between the years 2010 and 2040 (ABAG 2013).

Wetland Losses

Since the initial goal of “no net loss” of wetland was promoted by President Bush in 1988, the rate of wetland loss has decelerated during the intervening 25 years. However, despite the improvement in protecting wetlands from development, primarily through Section 404 of the Clean Water Act, the nation remains far from the original goal of no net wetland loss (i.e., even though losses have lessened, they still far outweigh any corresponding gains). Furthermore, the nation’s wetland mitigation policy has no way of ensuring the environmental function and benefit derived from wetlands are recognized and preserved under the current regulatory regime. Wetland and estuaries/lagoons provide many critical ecological and physical functions, such as attenuating flooding, facilitating groundwater recharge, and providing highly productive rearing habitat for many aquatic species. However, research suggests many of these functions are permanently lost when replacing natural wetland habitat with artificial or engineered substitutes (Golet 1986), as happens per Clean Water Act mitigation requirements.

<https://repository.library.noaa.gov/view/noaa/12013>

The project of Dipsea Ranch, that is within the Conlon Reach that is mentioned in the Stillwater 2011 Redwood Creek Watershed Study, says this:

Stillwater Sciences: Redwood Creek Watershed Assessment Final Report

https://www.nps.gov/goga/getinvolved/upload/RCWA_FINAL.pdf

P.2-4 The Tamalpais Area Community Plan states that “the County will consider programs to acquire the many forested undeveloped parcels in close proximity to Mt. Tamalpais State Park, Muir Woods National Monument and the lands of MMWD...

In the event that acquisition is not feasible, the County will implement design guidelines to ensure that new development does not harm the park or water district lands” (Marin County 1992).

P. 3-2

Several important issues with relevance to watershed planning are associated with human habitation in the watershed: septic systems, accelerated runoff and soil erosion, congestion on area roads, water use, and introduction of non-native plants and animals. All houses in the watershed, excepting those in Muir Woods National Monument, currently operate on septic systems, and problems with overloaded or poorly sited septic fields are noted in community plans. Further development, including redevelopment to larger residences, is expected to exacerbate these problems. Similarly, increasing development, home sizes, paving of roads and driveways, and removal of native vegetation also are expected to increase water runoff and the potential for soil erosion and water pollution. NPS water quality monitoring occasionally has found Redwood Creek bacteria levels to exceed state standards for human contact and elevated nitrogen levels. Problems with traffic congestion also are exacerbated by full-time residents in the watershed, caused by the area’s narrow and winding road system. Watershed residents make numerous daily trips, but what proportion of total traffic they represent is unknown. A traffic study is warranted.

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NORTHERN SPOTTED OWL threatened species pursuant to CESA and ESA is known to occur in the vicinity of the project. Noise and activities at the project site could potentially disturb NSO during nesting season and interrupt breeding or lead to nest failure. Population levels and vital rates for NSO continue to decline CDFW 2016 Report to Fish and Game Commission: A Stats Review of Northern Spotted Owl in California

[https](https://www.cdfw.ca.gov/Portals/0/Files/2016/2016%20Report%20to%20Fish%20and%20Game%20Commission%20-%20A%20Stats%20Review%20of%20Northern%20Spotted%20Owl%20in%20California.pdf)

CDFW: The southern limit of the owl’s range in Marin County (part of the California Coast Province and the RDC region) contains coast redwood, Bishop pine (*Pinus muricata*) and Douglas-fir forests and mixed evergreen-deciduous hardwood forests (e.g., California bay, tanoak and coast live oak) which are regularly used by Northern Spotted Owls (Jenson et al. 2006, USFWS 2011). Stralberg et al. (2009) found that owls inhabiting Marin County mixed forests were equally likely to be found in conifer dominated stands or hardwood dominated stands, and there did not seem to be a preference for any one tree species for owl nest sites. (P. 24, STATUS REVIEW OF NORTHERN SPOTTED OWL 2016) (see notes). Northern Spotted Owl habitat losses are expected from implementation of the FMP due to timber harvest, urban development, road construction, and prairie restoration. (P. 82 STATUS REVIEW OF NORTHERN SPOTTED OWL 2016).

DECIBEL LEVEL INFORMATION IS INACCURATE in the Initial by allowing high level stressors for NSO’S during construction.

BIOLOGICAL REPORT is wholly insufficient to determine the presence of certain species and the project impacts.

CALIFORNIA GIANT SALAMANDERS *Dicamptodon ensatus*

We have found adult *Dicamptodon ensatus* burrowing into the dry bank of an intermittent creek that feeds Cascade Creek in Mill Valley at 446 Panoramic Hwy in May of 2020. In the past 15 years we have also sighted *Dicamptodon ensatus* in the upper Redwood Creek watershed on MMWD lands on the Hoo-Koo-E-Koo trail between the Matt Davis trail and Hog Back. There are several damp locations on the subject property that would be suitable habitat because in almost every instance, they were found in dry areas but not far from creeks (1’ to approximately 200 feet). They are on the IUCN Red List of Threatened Species and they are near threatened here.

Page (“Breeding in the drainages is unlikely given their
It is understood that the adult *Dicamptodon Ensatus* migrate through riparian channels. Given that the property is on the headwaters of two separate watersheds, the significance of having genetic diversity as a primary survival mechanism makes this particular project location impactful for this species of salamander and other wildlife. Salamanders migrating through watersheds where there is only one 24’ wide paved road crossing for several miles is likely. *Dicamptodon Ensatus* was found in the middle of Cascade Drive in Mill Valley so we know that they cross paved roads. The western drainage of Redwood Creek comes almost up to Panoramic Highway and would easily traverse the 30’ road at night.

The property is bounded by 1500 feet of creeks and the Eastern tributary is completely on the property. Based on local accounts and without proper wildlife studies the Master comment conclusion is erroneous and lacks foundation or evidence.

Given that there are designated wetlands and 1500 feet of creeks on the property, there is, in fact, suitable habitat and the MND is inadequate. Without a proper survey over time, conclusions drawn in the MND about habitat suitability are inadequate.

Geoffrey Hammerson, Bruce Bury. 2004. *Dicamptodon ensatus*. The IUCN red List of Threatened Species 2004: e.T59080A11866765.

<https://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T59080A11866765.en>.

Downloaded on 23 September 2020.

iucnredlist.org/species/59080/11866765

Threats:

“The greatest threats to this species are stream siltation and urban development (Petranka 1998; D.B. Wake pers. Comm.) and it is also threatened by habitat fragmentation due to land use changes, including urbanization, agricultural development and logging (H.H. Welsh pers. Comm.).”

Ecosystem Stresses include residential and commercial development. 1.1 Housing and urban areas.

Herpetological Conservation and Biology 5(1):149-154. Submitted: 19 June 2008; Accepted: 14 January 2010. 149 UNUSUAL SUBTERRANEAN AGGREGATIONS OF THE CALIFORNIA GIANT SALAMANDER, DICAMPTODON ENSATUS GARY M. FELLERS¹, LESLIE L. WOOD², SARAH CARLISLE³, AND DAVID PRATT⁴ ¹ U.S. Geological Survey, Western Ecological Research Center, Point Reyes National Seashore, Point Reyes Station, California 94956, USA, e-mail; gary_fellers@usgs.gov ² 1080 Greenfield Rd., St. Helena, California 94574, USA ³ Point Reyes National Seashore, Point Reyes, California 94956, USA ⁴ 628 Barbera Place, Davis, California 95616, USA

http://www.herpconbio.org/Volume_5/Issue_1/Fellers_etal_2010.pdf

The subject property cannot be assumed to have no breeding habitat for *Decamptodon Ensatus* or a plethora of other species because there has not been a valid wildlife study.

The project of Dipsea Ranch, that is within the Conlon Reach that is mentioned in the Stillwater 2011 Redwood Creek Watershed Study, says this:

Stillwater Sciences: Redwood Creek Watershed Assessment Final Report

https://www.nps.gov/goga/getinvolved/upload/RCWA_FINAL.pdf

WILDLIFE CORRIDORS

COMMUNITY DEVELOPMENT

2007 Countywide Plan Pages 3.4 33-34 – The RMP .05 designation is not part of the CWP. The listing of special status species occurred after the 1992 Tamalpais Community Plan.

FINAL ◦ JULY 2018, 2007 Marin Countywide Plan Supplemental EIR with a Focus on Potential Cumulative Impacts to Salmonids in San Geronimo Valley (All 870 pages) by Stillwater Sciences.
<https://www.marincounty.org/-/media/files/departments/cd/planning/environmental-impact/2007-marin-cwp-san-geronimo-supplement/final-san-geronimo-valley-fseir-2007-cwp.pdf?la=en>

TRAFFIC STUDY INSUFFICIENT:

TRAFFIC ACCIDENTS AT THE DRIVEWAY OF THE PROPERTY AND INCREASED TRAFFIC DURING PANDEMIC

A traffic study that was done does not address total buildout of the property. It assumes 29 trips per day with 2 homes alone which is significant.

We have evidence of three accidents in front of the subject property in the past 5 years, two vehicles and one bicycle accident.

The bicycle accident on 2/1/15 had injuries and had to be transported to the hospital.

None of this information was in the MND.

THE FIRE HAZARD AND NEW WUI STANDARDS BEING CONSIDERED ARE NOT INCORPORATED IN THE IS/MND.

HYDROLOGY & CLIMATE CHANGE

2016 5-Year Review: Summary & Evaluation of Central California Coast Coho Salmon National Marine Fisheries Service West Coast Region April

<https://repository.library.noaa.gov/view/noaa/17797> NOAA Fisheries: 5

-Year Status Review April 2016 California Central California Coast Coho Salmon P. 27

Drought

California has experienced well below average precipitation in each of the past 4 water years (2012, 2013, 2014 and 2015), record high surface air temperatures the past 2 water years (2014 and 2015), and record low snowpack in 2015 (SWFSC 2015). Some paleoclimate reconstructions suggest that the current 4-year drought is the most extreme in the past 500 or perhaps more than 1000 years (SWFSC 2015). Anomalously high surface temperatures have made this a “hot drought”, in which high surface temperatures substantially amplified annual water deficits during the period of below average precipitation (SWFSC 2015). The effects of this extended drought on water supplies and water temperatures are a major concern for salmonid populations in California. Drought conditions are known to reduce the amount of water available, resulting in reductions (or elimination) of flows needed for adult salmonid passage, egg incubation, and juvenile rearing and migration...Drought impacts will likely impact salmonids for several more years, since prolonged above-average precipitation is necessary to bring the state’s surface and groundwater reserves back to normal levels.

Stillwater Sciences: Redwood Creek Watershed Assessment Final Report

https://www.nps.gov/goga/getinvolved/upload/RCWA_FINAL.pdf

Pages 2-9 through 2-16

Table G-1 Page 330 RE: Conlon Canyon and Headwater Tributaries



Area prior to fire road berm with culvert for upper headwater creek, Conlon Reach. Original site of Fire Road.

NOAA NATIONAL MARINE FISHERIES SERVICE
CALIFORNIA CENTRAL COAST COHO 2012 RECOVERY PLAN
Following: