Initial Study and Draft Negative Declaration

Dr. Joseph Meyers

Minor Subdivision

July 2021

Revised October 2021

Prepared By
Del Norte County
Community Development Department
Planning Division
981 H Street, Suite 110
Crescent City, California 95531

www.co.del-norte.ca.us

This page intentionally left blank.

Contents

Exhibits and Appendices Follow

Project Information Summary

1.	**Project Title:**	Dr. Joseph Meyers Minor Subdivision – MS2103
2.	**Lead Agency Name and Address:**	Del Norte County Planning Commission 981 H Street, Suite 110 Crescent City, CA 95531
3.	**Contact Person and Phone Number:**	Heidi Kunstal (707) 464-7254 hkunstal@co.del-norte.ca.us
4.	**Project Location and APN:**	6012 South Bank Road, Crescent City, CA Assessor Parcel Numbers 105-130-005 and 105-130-027
5.	**Project Sponsor's Name and Address:**	Dr. Joseph Meyers 45 Ora Way, #302, San Francisco, CA 94131
6.	**County Land Use:**	Rural Residential – one dwelling unit per one acre (RR 1/1) Rural Residential – one dwelling unit per five acres (RR 1/5)
7.	**County Zoning:**	Forest Recreation District – two acre minimum lot size (FR-2)

8. Description of Project:

Dr. Joseph Meyers is the owner of an undeveloped 19.83 acre parcel located on the west side South Bank Road in the Fort Dick area. He also owns a 1.0 acre parcel located adjacent to the parcel that is developed with a single family residence. The situs address for the residence is 6012 South Bank Road. At the July 2021 Planning Commission, a boundary adjustment application was approved to adjust approximately 11 ± acres of the 19.83 acre parcel to Green Diamond Resource Company, owner of a 200+ acre parcel located to the west. The adjusted area has steeper slopes and is better aligned with the growing and harvesting of timber. A minimum of 7 acres of the 19.83 acre parcel will be retained by Dr. Meyers into order to subdivide the parcel and to increase the size of his existing one-acre parcel.

Presently, Dr. Meyers has filed an application for a minor subdivision and an application for a boundary adjustment. The minor subdivision will create three new parcels that have frontage on South Bank Road. The boundary adjustment will adjust 1.0 acre to the developed 1.0 acre parcel and reconfigure it to match the dimensions of proposed parcels one through three.

The zoning for the 19.83 acre parcel is Forest Recreation – two acre minimum lot size (FR-2) and the General Plan Land Use designation is divided with the eastern one-third of the parcels being designated Rural Residential – one dwelling unit per acre (RR 1/1) and the western two-thirds of the parcel being designated Rural Residential – one dwelling unit per five acres (RR1/5). All lots created will conform to the minimum lot size of the FR-2 Zone District and conform to the General Plan Land Use designation as over 4.0 acres is designated with a one acre minimum lot size.

Future residences will be accessed by South Bank Road, a County Maintained Road. Due to the age of the road, it is unclear the width of the right-of-way along the property frontage. A dedication of land along the frontage to the County

may be a condition of the project approval along with any road improvements needed to meet current County Fire Safe Regulations and Road Standards. The new residences will be served by private individual wells and separate on-site wastewater treatment systems. The buildable area for the proposed lots is located within a Special Flood Hazard Area AE as designated on the FEMA Flood Insurance Rate Maps. Additionally, the building areas are located in a designated floodway of the Smith River. In both cases, the applicant will be required to comply with the County's Flood Damage Prevention Ordinance with regard to subdividing land in a floodplain/floodway. Future residences will be required to submit Flood Elevation Certificates and design all structures to meet the County's Flood Damage Prevention Ordinance which requires the first floor of residential structures to be constructed above the base flood elevation.

Following the circulation of the Initial Study and Draft Negative Declaration to the State Clearinghouse, a comment letter was received by the California Department of Fish and Wildlife responding its role as both as a Trustee and Responsible Agency under CEQA. Following a site visit to the property, California Department of Fish and Wildlife (CDFW) staff identified a watercourse and wetland on the project that was not previously identified. The comment letter addressed nine recommendations to be considered including the preparation of a wetland delineation, botanical survey, submission of a Lake and Streambed Alteration notification for existing or proposed surface water divisions(s), consideration of nesting periods for planned vegetation removal and preservation of trees greater than 36 inches in diameter. Consequently, the applicant was contacted and requested to have assessment of the biological resources prepared that addressed the comments identified in the CDFW comment letter. Consequently, the results of the assessment have confirmed the existence of potentially significant environmental impacts resulting from the project necessitating the recirculation of the Negative Declaration as a Mitigated Negative Declaration. Potential impacts and planned mitigation are discussed below in the checklist under Section 4 Biological Resources.

9. Surrounding Land Uses and Settings:

With the exception of the property to the east owned by Green Diamond Resource Co., all lands to the north, south and east are all designated for rural residential development. The majority of the adjacent lots are developed with single family residences. The property is located in a rural neighborhood that is developed with single family homes. The Green Diamond Resource Co. land is zoned Timberland Preserve and has a General Plan Land Use designation of Timberland.

10. Required Approvals: Minor Subdivision —- Del Norte County Planning Commission

11. Other Approval (Public Agencies): None. Divisions of the County Community Development Department will review for compliance with conditions of approval.

12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Native American tribes, traditionally and culturally affiliated with the project area have been notified of the project application completion and the beginning of the AB 52 consultation period pursuant to PRC §21080.3.1. Notification of the beginning of the AB 52 consultation period was provided June 11, 2021. No requests for consultation pursuant to PRC §21080.3.1 were not received.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" without mitigation as indicated by the checklist on the following pages. All mitigation measures are provided in the Mitigation Monitoring and Reporting Program.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☒	Hydrology / Water Quality	☐	Land Use / Planning	☐	Mineral Resources
☐	Noise	☐	Population / Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities / Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☒	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☐	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Heidi Kunstal

Heidi Kunstal

Community Development Director

10-21-21

Date

Environmental Checklist

1. Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or public views of the site and its surroundings? (Public views are those that are experienced from publically accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion of Impacts

a. This project would have no foreseeable impact on scenic vistas.
b. This project would have no foreseeable impact on scenic resources.
c. The project would not degrade the existing visual character or public views of the site and its surroundings.
d. The project does not propose any development which would create a new source of substantial light or glare which would adversely affect views.

2. Agriculture and Forest Resources

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒

d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion of Impacts

a. No farmland exists on-site.
b. No agricultural zoning exists on-site which would be impacted adversely by this project.
c. The project would have no impact nor create conflicts with zoning of forestlands or Timber Production Zones. The land is zoned for residential use.
d. Yes. The project will require the conversion of timberland to a non-timberland use in order to develop future home sites on proposed parcels one through three. Either a Timber Conversion Permit (TCP) or Notice of Conversion Exemption Timber Operations (one time 3-acre conversion) will be required to be filed with CAL FIRE. Since the conversion area would be expected to be minimal in areas with low amounts of merchantable timber, the loss of forest land would be considered a less than significant impact.
e. The project does not involve any other changes in the existing environment that could adversely affect farmland or timberlands.

3. Air Quality

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people?	☐	☐	☐	☒

Discussion of Impacts

a. This project would have no foreseeable impacts on the implementation of an air quality plan.
b. This project would have no foreseeable impacts on increasing criteria pollutants in the region.
c. This project would not expose receptors to pollutant concentrations.
d. This project would have no foreseeable impacts in increasing any emissions.

4. Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☐	☒

Discussion of Impacts

a. Galea Biological Consulting (GBC) prepared a *Biological Assessment for Myers (sic) Property, South Bank Road, Del Norte County. APN #105-130-000 (sic)* dated September 2021 (hereafter referred to as *Biological Assessment*) for the proposed subdivision. GBC conducted a records search of the CDFW's Natural Diversity Data Base in September 2021 to determine if special-status plant or animal species had been previously reported near the project area. Table 1 of the attached *Biological Assessment* includes a list of listed and wildlife species potentially occurring within two miles of the project area. Page 5 of the *Biological Assessment* lists all of the special-status species and sensitive community types considered which correspond with those listed in Section 4.a of the Appendix G. The results of the evaluation show the area as having the Northern spotted owl (*Strix occidentalis caurina*), the Northern red-legged frog (*Rana aurora aurora*) and the Foothill yellow-legged frog (*Rana Boylii*) occurring or potentially occurring within the region of the project. The Northern spotted owl is listed as Federally threatened (FT) and a California species of concern (CSC) for the CDFW. Likewise, the Northern red-legged frog has the same federal and state designations. The Foothill yellow-legged frog has no federal designation but is listed as a California species of concern (CSC) for the CDFW. GBC conducted a field investigation to analyze the habitat and to conduct an impact assessment for the above mentioned species. With regard to the Northern spotted owl, GBC had conducted surveys for this property in 2019, 2020 and 2021 and detected no Northern spotted owls during the survey. GBC did identify habitat on the property suitable for the Northern red-legged frog and recommended a protection measure be added requiring a qualified biologist survey the property prior to

conducting any logging or construction on the property. Any identified frogs would be removed to be out of harm's way. Mitigation Measure Bio-Resources 1 has been added to incorporate this recommendation.

Mitigation Measure Bio-Resources 1 – Protection of Northern red-legged frog

A note shall be placed on the parcel map advising future owners of the parcels that prior to any earth disturbing activities including but not limited to vegetation removal, logging or construction, a qualified biologist shall conduct a survey of the property to identify the presence or absence of Northern red-legged frogs. Any frogs identified during the survey shall be removed for the area planned to be disturbed and relocated out of harm's way. A Notice of Conditional Approval (NOCA) shall also be required as a condition of the minor subdivision which will be evident during any title search for any of the parcels created. The NOCA serves as an additional notice to future owners of this requirement and others placed upon the project approval.

Timing/Implementation: Upon recordation of the Parcel Map (note on Parcel Map) and a condition of future building permits related to the parcels to be created.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Ongoing.

b. The Biological Assessment prepared by GBC identified a small drainage channel that transects the parcel in a north-south direction. See Meyers Tentative Map included with Biological Assessment that shows the extent of the watercourse on proposed parcels 1 through 3. Proposed parcel 1 also has a wetland area identified. GBC has recommended a 50-foot wide protection buffer measured east of the boundary of the edge the watercourse for proposed parcels one and two and a 50-foot wide protection buffer measured from the east of the boundary of the edge the watercourse for proposed parcel 3 for the southern 50 feet of the parcel. For the remainder of proposed parcel 3, the protection buffer would be 25 feet wide. No development may occur within the buffered areas. Based on follow-up conversation with CDFW staff, the recommended 25-foot buffer is less than preferred but may be offset with additional conditions that improve the habitat such as the removal of invasive plants within the entire project area. Mitigation Measure Bio-Resources 2 and 3 have been placed on the project to reflect these recommendations. An additional recommendation was to place split rail fencing or other aesthetically pleasing wildlife friendly barrier along the buffered edge to demarcate the buffer after development of parcel occurs. Mitigation Measure Bio-Resources 4 addresses this recommendation.

Mitigation Measure Bio-Resources 2 – Identification of Wetland and Watercourse on Parcel Map and Note Identifying Limitations in Use of Protection Buffers

The delineated watercourse edge and 50 feet riparian buffer and the delineated wetland edge and 25 feet wetland buffer as shown on mapping provided by Galea Biological Consulting in the *Biological Assessment for Myers (sic) Property, South Bank Road, Del Norte County. APN #105-130-000* dated September, 2021 as shown on Exhibit A Meyer Tentative Subdivision Map shall be shown on the parcel map. A note shall be placed on the parcel map stating that the riparian and wetland buffers are not approved for development, and no disturbance of the area is allowed without approval from the County of Del Norte and the California Department of Fish and Wildlife.

Timing/Implementation: Upon recordation of the Parcel Map (note on Parcel Map) and a condition of future building permits related to the parcels to be created.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Ongoing.

Mitigation Measure Bio-Resources 3 – Removal of Invasive Species

Prior to recordation of the parcel map, the applicant shall remove within the project area all invasive plant species rated as High by the California Invasive Plant Council for the project area. The applicant shall provide a minimum of two weeks' notice prior to filing to record the parcel map to allow California Department of Fish and Wildlife staff the opportunity to visit the project site and confirm the removal of the invasive plants.

Timing/Implementation: Upon recordation of the Parcel Map (note on Parcel Map)
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Completed following recordation of the parcel map.

Mitigation Measure Bio-Resources 4 – Wildlife Friendly Barrier along Protection Buffer Edge

A note shall be placed on the parcel map stating that prior to issuance of the first building permit for development on parcels 1, 2 and 3, the property owner shall be responsible for constructing a split rail fence or other aesthetically pleasing wildlife friendly barrier along the riparian and/or wetland buffer as shown on Exhibit A Meyers Tentative Map. Alternatively, the subdivider may choose to delineate the entire buffer prior to recordation of the map relieving future property owners of this obligation.

Timing/Implementation: Upon issuance of the first building permit for parcels 1, 2 and 3 or prior to recordation of the map if the subdivider chooses to place the demarcation barriers prior to property sales.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Up to issuance of first building permit for parcels 1, 2 and 3.

c. GBC performed a wetland delineation of the project site in August 2021 which is included in the *Biological Assessment*. As noted under item b. above, a wetland was identified in proposed parcel 1. GBC has referred to the watercourse and wetland generally as "wetland" in the recommendations section. For a portion of the wetland (southern 50 feet), GBC has recommended a 50-foot wide wetland buffer and for the remaining portion of the parcel a 25-foot wide wetland buffer. The reduced buffer is discussed under section 4.b above with Mitigation Measures Bio-Resources 1, 2 and 3 all related to protecting the wetland resources.

d. The project will not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites within the project area. The project will result in the addition of three single family residences adjacent immediately adjacent to a well-travelled public road and in an areas substantially improved with single family homes. Mitigation Measure Bio-Resources 4 requires the demarcation barrier between the buffer and developable area to be wildlife friendly.

The comment letter from the CDFW indicated that nesting birds may be a potential impact within the project area when vegetation removal occurs or other project related activities that could impact nesting birds. As noted in the comment letter, the bird nesting season is generally from March 15 to August 15 for most species. The taking of birds and their nests is prohibited under Fish and Game Code. CDFW recommends that all vegetation removal or project related activities occur outside of the nesting period. If work is scheduled within this period Mitigation Measure Bio-Resources 5 describes the protocol that must be undertaken prior to initiating any work that may disturb birds or nests.

Mitigation Measure Bio-Resources 5 – Nesting Birds

A note shall be placed on the map stating future property owners should refer to Mitigation Measure Bio-Resources 5 in the Mitigation and Monitoring Plan prepared for the Dr. Joseph Meyers Minor Subdivision that is on file with the County

Planning Division. Mitigation Measure Bio-Resources 5 includes protocol to be followed if vegetation removal or other project related activities are conducted during the nesting season (February 15 to August 15 for most species. The mitigation measure is as follows:

If vegetation removal or project related activities can't be avoided during the nesting season (March 15- August 15 for most species), a qualified biologist shall conduct a preconstruction survey in the project construction and staging areas for nesting birds within seven days prior to beginning of project-related activities. Surveys should begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. A report of the survey results shall be sent to the California Department of Fish and Wildlife (Habitat Conservation – Eureka Office) within three business days of completion. The report should include a description of the area surveyed, time and date of surveys, ambient conditions, species observed, active nests observed, evidence of breeding behaviors (e.g., courtship, carrying nesting material or food, etc.), and a description of any outstanding conditions that may have impacted survey results (e.g., weather conditions, excess noise, predators present, etc.).

If active nests are located during the pre-construction bird nesting surveys, the property owner should implement avoidance measures in consultation with CDFW. If a lapse in project-related work of seven days or longer occurs, the qualified biologist should repeat surveys before project work can resume.

Timing/Implementation: If any vegetation removal is planned outside of the nesting season (generally March 15 – August 15 for most species)
Enforcement: County Community Development, California Department of Fish and Wildlife
Monitoring: During the construction period(s)

e. This project would not conflict with any local policies or ordinances protecting biological resources with the incorporated mitigation measures.

f. This project would not conflict with any Habitat Conservation Plans, etc.

5. Cultural Resources

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Discussion of Impacts

a-c. No cultural resources are known to exist on-site. The County records were searched for known cultural sites in the general project vicinity, and none were identified. Notice was provided to the two tribes traditionally culturally affiliated with the project area and no comment was given with regard to cultural resources. While resources are not known to exist on-site, the possibility of an inadvertent discovery is always possible during construction or other implementation activities associated with the project. In this case, a condition of the project will ensure that any resources located on-site will be properly treated as to not cause a significant impact.

6. Energy

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Discussion of Impacts

a. The project would have no foreseeable impacts on increasing wasteful, inefficient, or unnecessary energy use since no development is proposed as part of this application.
b. This project does not conflict with nor obstruct a state or local plan for renewable energy or energy efficiency.

7. Geology and Soils

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Discussion of Impacts

a. Del Norte County has not been mapped for Alquist-Priolo Earthquake Fault Zoning. While the 19.83 acre parcel does have steep slopes on its western two-thirds, the eastern portion where the homes will be developed has gentler slopes that were not deemed to be at enough of a percentage of slopes to require the County's Hillside Development Criteria. The field visit conducted by the Environmental Review Committee did not identify an obvious risk for landslides related to the project development or note any conditions that would result in substantial soil erosion or the loss of top soil. With respect to seismic impacts and possible risks, northern California is subject to seismic activity associated with the Cascadia Subduction Zone (CSZ).

b. The Environmental Review Committee did not identify any site conditions or identify and concerns in the development proposal that would result in substantial soil erosion or the loss of top soil. Grading would be limited to preparing building sites for future residences. An engineered grading and drainage plan would be required prior to issuance of the building permits for the new residences to address on-site and off-site drainage.

c. The project site has not been identified as being located with a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

d. Standard and approved engineering practices shall be implemented during any excavation and construction activities. These measures will ensure that proposed buildings are structurally sound and future habitants are not exposed to geologic hazards.

e. An On-Site Sewage Disposal Evaluation was compiled for the parcel in May 2021 by Stover Engineering. Wet weather testing was conducted in April 2021. Stover Engineering's evaluation concluded that the property was suitable for a conventional on-site sewage wastewater treatment system within specified limitations.

f. The project area is not known to contain a unique paleontological resource or geologic feature.

8. Greenhouse Gas Emissions

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Discussion of Impacts

a-b. In 2002, the California legislature declared that global climate change was a matter of increasing concern for the state's public health and environment, and enacted a law requiring the state Air Resource Board (ARB) to control GHG emission from motor vehicles (Health and Safety Code §32018.5 et seq.). CEQA Guidelines define GHG to include carbon dioxide (CO2), nitrous oxide (N2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The California Global Warming Solutions Act of 2006 (AB 32) definitively established the state's climate change policy and set GHG reduction targets (Health and Safety Code §38500 et seq.). The state has set its target at reducing greenhouse gases to 1990 levels by the year 2020.

Construction of up to three homes may generate GHG emissions as a result of combustion of fossil fuels used in construction equipment. Use of variety of construction materials would contribute indirectly to GHG emissions because of the emissions associated with their manufacture. The construction-related GHG emissions would be minor and short-term and would not constitute a significant impact based on established thresholds.

9. Hazards and Hazardous Materials

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Discussion of Impacts

a. The project would not cause a hazard to the public through the routine transport, use, or disposal of hazardous materials.
b. The project would not cause a hazard to the public or environment through reasonably foreseeable accident conditions involving the release of hazardous materials into the environment.
c. The project would not create hazardous emissions or require the handling of hazardous waste.
d. This project is not located on a site which is included on any list of hazardous materials sites.
e. This project is not located near any airport or within an area covered by an airport land use plan.
f. This project would not impair implementation of an emergency response plan.
g. This project will be located in an area of surrounding vegetation and conditions related to the County's Fire Safe Regulations will be incorporated into the subdivision approval. Any future construction will comply with California Wildland Urban Interface (WUI) code and standards and current state or county fire regulations in place.

10. Hydrology and Water Quality

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on-or off-site?	☐	☐	☐	☒
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☐	☒
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional source of polluted runoff; or	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable ground water management plan?	☐	☐	☐	☒

Discussion of Impacts

a. The development of up to three home sites would not generate any significant runoff pollutants. Stormwater runoff would be limited to rainfall onto graveled and/or paved areas and is not expected to violate water quality standards. It is the policy of the County to follow existing and future Federal and State water quality standards. An engineered grading and drainage plan would be required to prepared and reviewed by the County Engineer to assure that water quality and waste discharge requirements are not violated.

b. The proposed project would not result in any net deficit of groundwater recharge. The applicant is proposing the use of private individual wells. The Community Development Department - Environmental Health Division has not identified the area to be water deficient. California Department of Fish and Wildlife has commented that the Lead Agency should ensure that proposed wells are sited at sufficient distance from aquatic habitats and with adequate depths and screen intervals (other design features based on site-specific geology, etc.) to avoid dewatering of wetland habitat. This is address in Mitigation Measure Hydrology and Water Quality 1.

Mitigation Measure Hydrology and Water Quality 1 – Permitting for Water Diversion(s)

A note shall be placed on the map stating that the individual wells to be located on parcels 1, 2, and 3 shall be sited sufficient distance from aquatic habitats and with adequate depths and screen intervals (other design features based on site-specific geology, etc.) to avoid dewatering of wetland habitat.

Timing/Implementation: Note shall be placed on parcel map prior to recordation of the parcel map and consideration of the note shall be considered at the time a permit to install an individual well is submitted to the County Environmental Health Division.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Up to issuance of well permits for parcels 1, 2 and 3.

c. The project, a residential development of up to three additional single family residences, would not exceed the capacity of any existing or proposed stormwater drainage systems or provide substantial additional sources of polluted runoff. An engineered grading and drainage would be required as a condition of the project approval.

Following the discovery of a watercourse on the property, California Department of Fish and Wildlife observed an existing surface water diversion a perennial spring with wetland habitat, located at approximately 41.8524, -124.1246. Pursuant to Fish and Game Code § 1602, any existing or proposed surface water diversion(s) shall submit a Lake and Streambed alteration notification to CDFW. This requirement was listed as a recommendation for the project approval in the comment letter received from CDFW for the project. Mitigation Measure Hydrology and Water Quality 2 reflects this recommendation.

No alterations of any stream or river or other drainage pattern would occur that would cause substantial erosion or siltation.

Also, there will be no change in site characteristics as a result of the project that would alter a course of a stream or river, or substantial increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. The applicant will be required to provide the floodway analysis required by the County's Flood Damage Prevention Ordinance. The applicant has providing preliminary mapping showing the flood hazard area and the elevation of the base flood as required by Del Norte County Section 20.47.050.C.1. Each development application for proposed parcels one through three will be required to comply with Del Norte County Code Section 20.47.050.E – Floodways to ensure that encroachments into the floodway do not increase flood levels during the occurrence of the base flood discharge. The certification shall be prepared by a registered professional engineer or architect.

Mitigation Measure Hydrology and Water Quality 2

Prior to recordation of the parcel map, the applicant shall provide verification to the County Planning Division from the California Department of Fish and Wildlife that any proposed or existing water diversion located on the subject property either has been permitted through the California Department of Fish and Wildlife or does not require a permit from the California Department of Fish and Wildlife.

Timing/Implementation: Prior to recordation of the parcel map.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Up to recordation of the parcel map.

d. The project is located within a flood hazard zone and any future development of proposed parcels one through three will be required to comply with Title 20 Zoning Chapter 47 Flood Damage Prevention which requires elevating residential structures at or above the base flood elevation. The project is not in an area subject to a tsunami or seiche zone and would not result in the risk of pollutants due to project inundation.

e. The project would not conflict with or obstruct implementation of a water quality control plan or sustainable ground water management plan.

11. Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Discussion of Impacts

The proposed project would not divide any community, designated planning area or surrounding area. The project site is located with the Fort Dick/Kings Valley Planning Area and is designated as Rural Residential – one dwelling units per one acre and Rural Residential – one dwelling unit per five acres in the Del Norte County General Plan (January 28, 2003). The site is zoned FR-2 (Forest Recreation –2 acre minimum lot size). The proposed project would not change the land use on the subject parcel. The proposed project would not conflict with any regional land use or environmental plans. No environmental plans or policies of state or regional agencies are directly applicable or would be affected by the proposed project.

12. Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion of Impacts

a. The project site is not located in an area designated to have significant mineral resources, as defined by the California Department of Conservation under the Surface Mining and Reclamation Act. The proposed project would not affect mineral resources in the area.

b. The project site and the surrounding area are not subject to mineral resource recovery operations. Thus, the proposed project would not affect mining operations elsewhere in the County.

13. Noise

Would the project:	Potentially	Less Than	Less Than	No Impact

	Significant Impact	**Significant Impact with Mitigation Incorporated**	**Significant Impact**	
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion of Impacts

a. The project should not result in a significant level of noise beyond that which is already present. The project would result in the addition of up to three additional family residences three parcels that will be approximately 2.0 acres each in size. Surrounding lands uses are primarily low intensity rural residential and timberland.

b. The project will not expose any persons to or generate excessive groundborne vibration or groundborne noise levels.

c. The proposed site is not located near the airport. The site would not be exposed to excessive noise from any airport operations.

14. Population and Housing

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion of Impacts

a. The proposed project would result in up to three single family residences being constructed. It would not result in substantial amount of population growth on-site nor would it affect population growth in the area.

b. The proposed project would not displace any housing units located near the site.

15. Public Services

Would the project:	**Potentially**	**Less Than**	**Less Than**	**No Impact**

	Significant Impact	**Significant Impact with Mitigation Incorporated**	**Significant Impact**	
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion of Impacts

Fire Protection - The project must comply with the requirements of the County and State Fire Safe Regulations for fire safety and fire emergency response. The project is served by the Fort Dick Fire Protection District and CAL FIRE as it is located with the State Responsibility Area.

Police Protection - The project would not result in the need to alter or expand police service in the area and would not have an adverse effect on existing police service or response times. The area is served by the Del Norte County Sheriff's Office.

Schools - The project would not involve a significant increase in the number of school age children and as such no new schools would need to be constructed nor would additions be needed for existing schools. The Del Norte Unified School District collects a school mitigation fee on a per square foot basis for new residential development. The fee goes toward the maintenance of the County school system to assure adequate classroom space is available for a growing population.

Parks - The project would allow for the development of up to three single family residences and thus would not directly nor indirectly place additional strain on existing parks.

Other Public Facilities - The project would allow for the development of up to three single family residences and thus would not directly nor indirectly place additional strain on any other public services.

16. Recreation

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion of Impacts

a. The project would result in limited increase in the use of existing neighborhood and regional parks or other recreational facilities. The impact is not expected to be significant.

b. The project would not result in a substantial increase in users of existing neighborhood and regional parks or other recreational facilities

17. Transportation

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Discussion of Impacts

a. The project is not anticipated to conflict with a program, plan, ordinance, or policy addressing any circulation system. The property was previously had a residential use and the proposed project will result in a reinstatement of that use with an additional four residences added for a total of five residences. This relatively small addition of residents to the area will not create any significant impacts with the circulation system. The use permit will require that road improvements be constructed which will be incorporated as conditions of approval for consistency with County Code.

b. The project is not expected to be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). According to the Institute of Traffic Engineers Trip Generation, the project is anticipated to generate 28.32 trips per day[1]. According to the 2020 Del Norte Region SB 743 Implementation Plan, the Traffic Analysis Zone (TAZ 102) containing in the project area describes the average VMT to be approximately 7.96 daily per capita and 21.62 daily per employee. Further, the Plan provides for thresholds of significance that screen certain projects out of constituting a significant impact toward VMT generation. In this case, the project is expected to generate less than 110 trips per day, so it can be considered to have a less than significant impact as a 'Small Project' under Section 3.2.1 of the SB 743 Implementation Plan. Additionally, the housing project is 100% affordable and located within an infill area.

c. The project does not increase hazards due to a design feature .The project would allow access to the property from South Bank Road, a County maintained road. Improvements to the encroachments (driveways) will be a condition of

1 Average Daily Trips Rate per Single Family Detach House is 9.44 per the 10th Edition of the ITE Trip Generation.

future building permits. There are no dangerous features in the project area and this project would not require improvements that would introduce circulation or traffic safety hazards.

d. All access to the propose parcels would be directly from South Bank Road. No other emergency access in the surrounding area would be affected by development of this project.

18. Tribal Cultural Resources

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Discussion of Impacts

a. The project would have no foreseeable impacts on tribal cultural resources. A member of the Environmental Review Committee is a Native American representative and has not issued notice of any concern of resources on-site. Further, an AB 52 tribal consultation has been sent to local tribes associated with the project area and no requests for consultations have been received by the Lead Agency.

19. Utilities and Service Systems

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in	☐	☐	☐	☒

addition to the providers existing commitments?				
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion of Impacts

a. The project will result in the addition of up to three new residences. The new residences will not result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects

b. The project would not have a significant impact on water supplies available to the parcel. The project will be served by a private individual wells. The area has not been identified as being deficient in water.

c. The project will be served by private onsite wastewater treatment systems on each proposed parcel. No burden will be placed on a public wastewater treatment provider.

d. The project site has solid waste pickup service available from local franchisee Recology. Self-hauling to the Del Norte Transfer Station is also available. The solid waste generated by up to three homes would not significantly impact the capacity of either service provider.

e. No conflict with solid waste regulations is expected.

20. Wildfire

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Discussion of Impacts

a. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

b. The project, as designed and sited on the property, would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The development is located on the eastern portion of the property where vegetation is less dense than elsewhere on the property and the topography is gentle to flat.

c. The project is located within the State Responsibility Area and is designated as a High Fire Risk Area. The project will be required to be developed in substantial compliance with the County's Fire Safe Regulations and/or the State's Minimum Fire Regulations depending upon when the project is physically constructed. Standards for emergency water supply, setbacks for defensible space, gates, ingress/egress must be incorporated into final plans for the development. Significant changes to the State's Minimum Fire Safe Regulations are anticipated to go into effect as of the date of this Initial Study. Fuel breaks and other safety measures may be required unless the implementation of the regulations is delayed by the Board of Forestry. Specific conditions related to the implementation of the standards will be placed on the Minor Subdivision (i.e. road standards (if applicable), establishing an emergency water supply etc.).

d. The project as designed and sited will not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

21. Mandatory Findings of Significance

Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

a-c. The project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife species to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

Additionally, the project does not have impacts that are individually limited but cumulatively considerable and does not have environmental effects which will cause substantial adverse effects on human beings directly nor directly.

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure Bio-Resources 1 – Protection of Northern red-legged frog

A note shall be placed on the parcel map advising future owners of the parcels that prior to any earth disturbing activities including but not limited to vegetation removal, logging or construction, a qualified biologist shall conduct a survey of the property to identify the presence or absence of Northern red-legged frogs. Any frogs identified during the survey shall be removed for the area planned to be disturbed and relocated out of harm's way. A Notice of Conditional Approval (NOCA) shall also be required as a condition of the minor subdivision which will be evident during any title search for any of the parcels created. The NOCA serves as an additional notice to future owners of this requirement and others placed upon the project approval.

Timing/Implementation: Upon recordation of the Parcel Map (note on Parcel Map) and a condition of future building permits related to the parcels to be created.

Enforcement: County Community Development Department and California Department of Fish and Wildlife

Monitoring: Ongoing.

Mitigation Measure Bio-Resources 2 – Identification of Wetland and Watercourse on Parcel Map and Note Identifying Limitations in Use of Protection Buffers

The delineated watercourse edge and 50 feet riparian buffer and the delineated wetland edge and 25 feet wetland buffer as shown on mapping provided by Galea Biological Consulting in the *Biological Assessment for Myers (sic) Property, South Bank Road, Del Norte County. APN #105-130-000* dated September, 2021 as shown on Exhibit A Meyer Tentative Subdivision Map shall be shown on the parcel map. A note shall be placed on the parcel map stating that the riparian and wetland buffers are not approved for development, and no disturbance of the area is allowed without approval from the County of Del Norte and the California Department of Fish and Wildlife.

Timing/Implementation: Upon recordation of the Parcel Map (note on Parcel Map) and a condition of future building permits related to the parcels to be created.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Ongoing.

Mitigation Measure Bio-Resources 3 – Removal of Invasive Species

Prior to recordation of the parcel map, the applicant shall remove within the project area all invasive plant species rated as High by the California Invasive Plant Council for the project area. The applicant shall provide a minimum of two weeks' notice prior to filing to record the parcel map to allow California Department of Fish and Wildlife staff the opportunity to visit the project site and confirm the removal of the invasive plants.

Timing/Implementation: Upon recordation of the Parcel Map (note on Parcel Map)
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Completed following recordation of the parcel map.

Mitigation Measure Bio-Resources 4 – Wildlife Friendly Barrier along Protection Buffer Edge

A note shall be placed on the parcel map stating that prior to issuance of the first building permit for development on parcels 1, 2 and 3, the property owner shall be responsible for constructing a split rail fence or other aesthetically

pleasing wildlife friendly barrier along the riparian and/or wetland buffer as shown on Exhibit A Meyers Tentative Map. Alternatively, the subdivider may choose to delineate the entire buffer prior to recordation of the map relieving future property owners of this obligation.

Timing/Implementation: Upon issuance of the first building permit for parcels 1, 2 and 3 or prior to recordation of the map if the subdivider chooses to place the demarcation barriers prior to property sales.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Up to issuance of first building permit for parcels 1, 2 and 3.

Mitigation Measure Bio-Resources 5 – Nesting Birds

If vegetation removal or project related activities can't be avoided during the nesting season (March 15- August 15 for most species), a qualified biologist shall conduct a preconstruction survey in the project construction and staging areas for nesting birds within seven days prior to beginning of project-related activities. Surveys should begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. A report of the survey results shall be sent to the California Department of Fish and Wildlife (Habitat Conservation – Eureka Office) within three business days of completion. The report should include a description of the area surveyed, time and date of surveys, ambient conditions, species observed, active nests observed, evidence of breeding behaviors (e.g., courtship, carrying nesting material or food, etc.), and a description of any outstanding conditions that may have impacted survey results (e.g., weather conditions, excess noise, predators present, etc.).

If active nests are located during the pre-construction bird nesting surveys, the property owner should implement avoidance measures in consultation with CDFW. If a lapse in project-related work of seven days or longer occurs, the qualified biologist should repeat surveys before project work can resume.

Timing/Implementation: If any vegetation removal is planned outside of the nesting season (generally March 15 – August 15 for most species)
Enforcement: County Community Development, California Department of Fish and Wildlife
Monitoring: During the construction period(s)

Mitigation Measure Hydrology and Water Quality 1 – Permitting for Water Diversion(s)

A note shall be placed on the map stating that the individual wells to be located on parcels 1, 2, and 3 shall be sited sufficient distance from aquatic habitats and with adequate depths and screen intervals (other design features based on site-specific geology, etc.) to avoid dewatering of wetland habitat.

Timing/Implementation: Note shall be placed on parcel map prior to recordation of the parcel map and consideration of the note shall be considered at the time a permit to install an individual well is submitted to the County Environmental Health Division.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Up to issuance of well permits for parcels 1, 2 and 3.

Mitigation Measure Hydrology and Water Quality 2

Prior to recordation of the parcel map, the applicant shall provide verification to the County Planning Division from the California Department of Fish and Wildlife that any proposed or existing water diversion located on the subject property either has been permitted through the California Department of Fish and Wildlife or does not require a permit from the California Department of Fish and Wildlife.

Timing/Implementation: Prior to recordation of the parcel map.
Enforcement: County Community Development Department and California Department of Fish and Wildlife
Monitoring: Up to recordation of the parcel map.

This is not an official map and is intended for assessment purposes only.

POR. SEC. 24, T 17 N, R 1 W, H.B.&M.

Tax Area
051-063
051-065

105-13

1" = 300'

BOOK 122

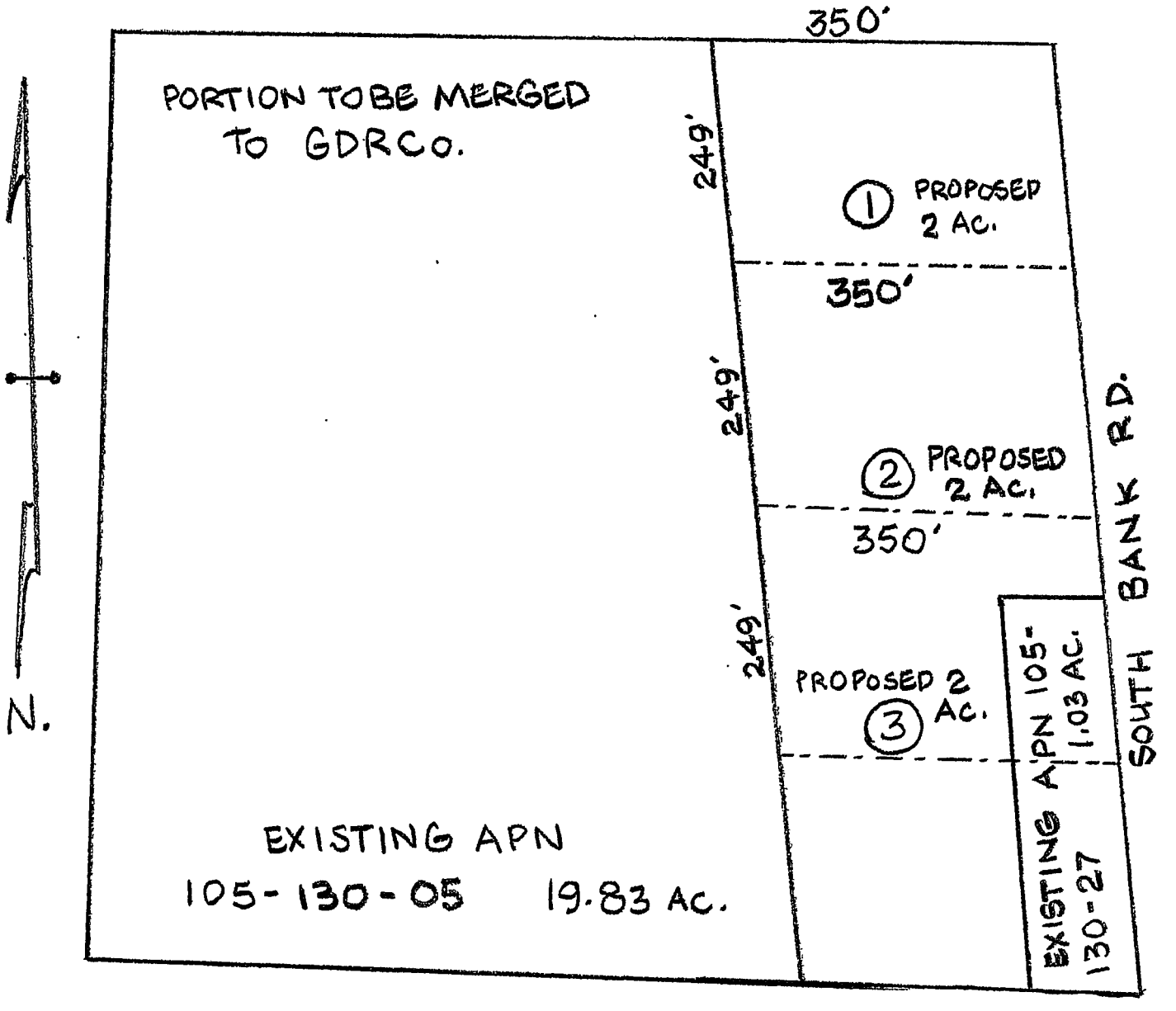
0945
0856
1234
0345
0745
08/03/2018

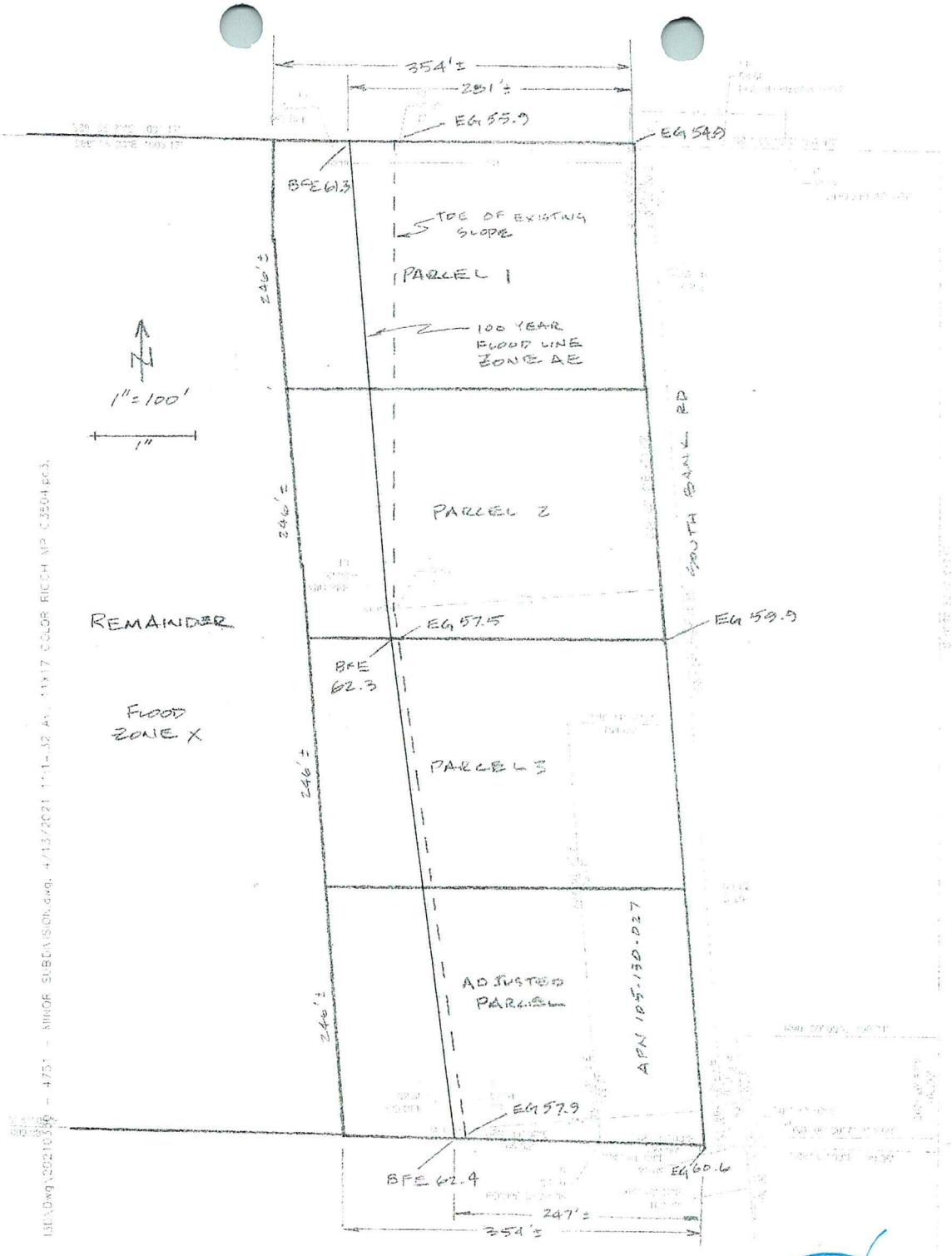
105-130-36 & 105-170-22 ARE ONE LEGAL PARCEL BUT SEPARATED FOR TAX ASSESSMENT PURPOSES DUE TO DIFFERENT TAX RATE AREAS.

JENNIFER PERRY
DEL NORTE COUNTY ASSESSOR
Certified by: Kelly Hamm
Date: 05/20/2021

Assessor's Map Bk. 105 - Pg. 13

MEYERS MINOR SUBDIVISION APPLICATION





MEYERS SUBDIVISION FLOOD LOCATION MAP
APN 105-130-005-000 & 105-130-027-000

BFE - BASE FLOOD ELEVATION
EG - EXISTING GROUND ELEVATION
ELEVATION DATUM - NAVD88

REGISTERED PROFESSIONAL ENGINEER
WARD LEONARD STOVER
No. 44207
Expires 6-30-21
CIVIL
STATE OF CALIFORNIA

GROUND ELEVATIONS ARE BASED ON FIELD SURVEY BY STOVER ENGINEERING ON 3/31/2021.
LOCATION OF FLOOD LINE IS APPROXIMATE BASED ON ASSUMED PROPERTY LINE LOCATION.

BASE FLOOD ELEVATIONS WERE DETERMINED BY INTERPOLATION FROM FEMA FLOOD INSURANCE RATE MAP PANEL 06015C0226F EFFECTIVE 11/26/2010.

STOVER ENGINEERING 4/13/2021 JN 4751

National Flood Hazard Layer FIRMette

FEMA

124°7'46"W 41°51'28"N

124°7'9"W 41°51'1"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/11/2021 at 8:26 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

JN 4751 SHEET 6 OF 23

STOVER ENGINEERING
Civil Engineers and Consultants

PO Box 783 711 H Street
Crescent City CA 95531
Tel: 707.465.6742
Fax: 707.465.5927
info@stoverenq.com

JOSEPH MEYERS, MD
45 ORA WAY #302
SAN FRANCISCO, CA 94131

Job Number: 4751

23 May 2021

RE: On-site Wastewater Treatment System Evaluation – APN 105-130-005-000 and APN 105-130-027-000

Dear Dr. Meyers,

At your request, Stover Engineering has performed on-site wastewater treatment system (OWTS) evaluation for a proposed minor re-subdivision at and near 6012 South Bank Road in Del Norte County, CA. The minor subdivision proposed for APN 105-130-005 has a total area of 7 acres after a pending boundary adjustment with Green Diamond Resource Co., and with APN 105-130-027 which has a total area of one acre (currently developed). This proposal results in (4) two-acre parcels designated as proposed parcels 1, 2, and 3, and the reconfigured developed parcel as indicated on the attached site sketch. Based on our investigation, it is our opinion that a conventional leachfield and reserve disposal area can be located on each proposed parcel in the minor subdivision, and a reserve disposal area can be located for the existing residence. This report conforms to the Del Norte County Sewage Disposal Ordinance (design standards).

APN -027 is developed with a residence and a conventional leachfield. APN -005 is wooded and undeveloped with the exception of a collapsing shed in the northern half of the property, and a spring or well (type of water source was not confirmed) with a storage tank situated on the hillside approximately 180 feet west of APN -027. The water tank provides water for the existing residence on APN -027 as well as neighbor residences located on APNs 105-130-071 and 105-130-013 on the east side of South Bank Road. Plastic water pipes with minimal soil cover convey water from the well to the neighbor parcels.

Our staff performed field observations during wet weather percolation testing season on 2, 6, and 9 April 2021 to determine suitability for OWTS systems in the minor subdivision and for a reserve area at the existing residence. Branden Hendrix and Houawa Moua of the Del Norte County Environmental Health Division were notified of the observations but declined to attend. The observations were conducted between 60 and 100 feet away from the western edge of South Bank Road. The existing ground on the site slopes downward to the toe of slope of the hillside (westerly) at approximately 1 percent.

A total of ten test pits were excavated to a depth of 8 feet below ground surface (bgs) with a backhoe, as indicated on the attached site plan and test pit logs. The soil test pit locations are designated TP-1 through TP-10 as shown on the attached site sketch. TP-1 was excavated on the Adjusted Parcel to establish a reserve disposal area for the existing residence. TP-2 through TP-10 were excavated to establish primary and reserve areas for the minor subdivision. All soils

were found to have increased moisture near the bottom of the test pits, but no groundwater or mottling was observed. Soils observed in the test pits are summarized on Table 1.

Table 1 – Soils Observation Results

Test Pit	Type/Depth		Type/Depth		Type/Depth		Groundwater
TP-1	Topsoil	0' – 0.5'	Sandy loam	0.5' – 7.5'	Sandy clay loam	7.5' – 8'	None observed
TP-2	Topsoil	0' – 0.5'	Sandy clay	0.5' – 7'	Clay	7' – 8'	None observed
TP-3	Topsoil	0' – 0.5'	Silty clay	0.5' – 7'	Clay	7' – 8'	None observed
TP-4	Gravel	0' – 1.5'	Sandy loam	1.5' – 7'	Sandy clay	7' – 8'	None observed
TP-5	Gravel	0' – 1.5'	Sandy clay loam	1.5' – 7'	Sandy clay	7' – 8'	None observed
TP-6	Topsoil	0' – 1'	Sandy loam	1' – 7'	Sandy clay	7' – 8'	None observed
TP-7	Topsoil	0' – 1'	Clay loam	1' – 6'	Clay	6' – 8'	None observed
TP-8	Topsoil	0' – 1'	Sandy loam	1' – 2.5'	Clay loam	2.5' – 8'	None observed
TP-9	Topsoil	0' – 1'	Sandy clay loam	1' – 3'	Clay loam	3' – 8'	None observed
TP-10	Topsoil	0' – 1'	Sandy loam	1' – 3.5'	Clay loam	3.5' – 8'	None observed

Our staff performed wet weather percolation testing on 2 April 2021 for soils adjacent to TP-1, TP-2, and TP-3. Our staff returned to the site on 9 April 2021 and performed wet weather percolation testing for soils adjacent to test pits TP-4 through TP-10. Percolation testing was not performed for TP-7. Percolation rates for all test pits with the exception of TP-3 were within the acceptable range for onsite wastewater disposal in accordance with the design standards. Test depths and results of the percolation tests are shown on Table 2.

Table 2 – Percolation Testing Results

Test Pit	Test Depth (feet bgs)	Percolation Rate (minutes/inch)
TP-1	3	7.5
TP-2	3	20
TP-3	3	>60
TP-4	2.5	15
TP-5	2.5	30
TP-6	2.5	8.6
TP-8	2.5	30
TP-9	2.5	45
TP-10	3	7.5

The minimum required separation distance to groundwater from the bottom of conventional leachfields is five feet in accordance with the Regional Water Quality Control North Coast Basin Plan. Based on the percolation test results and our calculations, there is sufficient area to construct a conventional leachfield and reserve disposal area for each of the proposed parcels, and a reserve area can be established for the existing residence, as shown on the attached site sketch. All proposed disposal areas are within the 100-year flood zone established by FEMA FIRM panel 06015C0226F, effective date 11/26/2010. Based on our site investigation there are no suitable areas outside of the 100-year flood zone to construct disposal areas on any of the parcels. Construction of an OWTS inside the 100-year flood zone is permissible provided that all other setbacks and requirements are observed. A 100-foot setback from perennial streams is required for disposal areas by the design standards. A perennial stream is defined by the Basin

Plan as the area inside the 10-year flood zone. The elevation of the 10-year flood zone is established along the Smith River by the 2018 FEMA Flood Insurance Study. South Bank Road and existing ground to the east of said road are both above the 10-year flood zone in the areas adjacent to the proposed disposal areas. All proposed disposal areas are more than 100 feet away from the 10-year flood zone. Copies of the site evaluation summaries, site sketch, FEMA FIRMette, soils exploration logs, percolation test logs, and conventional leachfield design are attached to this letter.

Please be informed that grading activities which disturb the reserve or primary areas indicated on the attached site plan will alter the suitability of the existing soils and subsequently invalidate the findings of our report. In addition, the placement of both on-site and off-site future improvements, including but not limited to wells and water lines, must adhere to the setbacks indicated on the Site Evaluation Summary sheets (pages 4-7).

The recommendations contained in this letter are based on data obtained during the stated site observations only. Soil conditions may vary throughout the site of the proposed disposal areas. Stover Engineering assumes no liability for conditions that differ from those observed by our staff at the time of the site visit.

We trust that this provides the information you require. Please feel free to contact us if you have any questions.

Very truly yours,

STOVER ENGINEERING

Grant Goddard, EIT
Assistant Civil Engineer

Ward L. Stover, PE
Principal

Attachment (28 pages)

STOVER ENGINEERING

SITE EVALUATION SUMMARY

Owner: JOSEPH MEYERS, MD

Date: 4/2/21

Address: 45 Ora Way #302
San Francisco CA 94131

Job No.: 4751

APN: 105-130-005

Location: PROPOSED PARCEL #1

Lot Size: 2 AC

Water System: PROPOSED WELL

Ground Slope: <2% DOWN TO WEST

Setbacks: (Delnorte County Minimum)	Septic tank	Leach Field
Property Line	✓ (10')	✓ (10')
Well	✓ (100')	✓ (100')
Water Line	✓ (10')	✓ (10')
Stream	✓ (100')	✓ (100')
Drainage Channel	~ (50')	~ (50')
Ocean, Lake, etc.	NA (50')	NA (100')
Bluff or Cutback	✓ (25')	✓ (25')

Primary Area Site(s): } TP-6 & TP-10

Replacement Site(s): }

Other excavations TP-7 (NO PERC TEST)

Depth to Hardpan, Bedrock, Etc.: NOT FOUND

Depth To Groundwater: NOT FOUND

Depth to Mottling: NOT OBSERVED

Other Factors: DRAINAGE ON WEST SIDE / BOGGY
WATER LINE ~110' FROM ROAD

Soil analysis zone:

Percolation Rate: 8.6 and 7.5 MPI

Depth of Soils under leachfield Required: 5 ft

Actual Depth Available: >5ft

Replacement Area Available: YES

Adequate? YES

Other Comments:

STOVER ENGINEERING

SITE EVALUATION SUMMARY

Owner: JOSEPH MEYERS, M.D

Date: 4/2/21

Address: 45 Ora Way #302
San Francisco
CA 94131

Job No.: 4751

APN: 105-130-005

Location: PROPOSED PARCEL #2

Lot Size: 2 AC

Water System: PROPOSED WELL

Ground Slope: <2% DOWN TO WEST

Setbacks: (Delnorte County Minimum)	Septic tank	Leach Field
Property Line	√ (10')	√ (10')
Well	√ (100')	√ (100')
Water Line	√ (10')	√ (10')
Stream	√ (100')	√ (100')
Drainage Channel	~ (50')	~ (50')
Ocean, Lake, etc.	NA (50')	NA (100')
Bluff or Cutback	√ (25')	√ (25')

Primary Area Site(s): } TP 4 & TP 5
Replacement Site(s): }

Other excavations NONE

Depth to Hardpan, Bedrock, Etc.: NOT FOUND

Depth To Groundwater: NOT FOUND

Depth to Mottling: NOT OBSERVED

Other Factors: DRAINAGE ON WEST SIDE / BOGGY
WATER LINE ~110' FROM ROAD

Soil analysis zone: UNKNOWN Percolation Rate: 15 and 30 MPI

Depth of Soils under leachfield Required: 5 ft

Actual Depth Available: >5 ft

Replacement Area Available: YES

Adequate? YES

Other Comments: APPROX 1' DEEP GRAVEL LAYER AT TOP OF SOIL PROFILE AT TP-4 AND TP-5, SITE OF RV PARKING PAD - ABANDONED/NOT MAINTAINED. PERC TESTS IN SOILS UNDER THE GRAVEL LAYER.

STOVER ENGINEERING

SITE EVALUATION SUMMARY

Owner: JOSEPH MEYERS, MD

Address: 45 Ora Way #302
San Francisco
CA 94131

Location: PROPOSED PARCEL #3

Lot Size: 2 AC

Ground Slope: <2% DOWN TO WEST

Date: 4/2/21

Job No.: 4751

APN: 105-130-005

Water System: PROPOSED WELL

Setbacks: (Delnorte County Minimum)	Septic tank	Leach Field
Property Line	✓ (10')	✓ (10')
Well	✓ (100')	✓ (100')
Water Line	✓ (10')	✓ (10')
Stream	✓ (100')	✓ (100')
Drainage Channel	~ (50')	~ (50')
Ocean, Lake, etc.	NA (50')	NA (100')
Bluff or Cutback	✓ (25')	✓ (25')

Primary Area Site(s): } TP-8 & TP-9

Replacement Site(s): }

Other excavations TP-2 & TP-3

Depth to Hardpan, Bedrock, Etc.: NOT FOUND

Depth To Groundwater: NOT FOUND

Depth to Mottling: NOT OBSERVED

Other Factors: WATER LINES CROSSING PARCEL

Soil analysis zone: UNKNOWN Percolation Rate: 30 and 45 MPI

Depth of Soils under leachfield Required: 5 ft

Actual Depth Available: >5 ft

Replacement Area Available: YES

Adequate? YES

Other Comments: ENCUMBERED BY WATER LINES SERVING NEIGHBORS, CLAY/SILT SOILS AND THICK TREE COVER. MARSH/SWAMPY TERRAIN AT ~140' FROM SOUTH BANK ROAD.

STOVER ENGINEERING

SITE EVALUATION SUMMARY

Owner: JOSEPH MEYERS, MD

Date: 4/2/21

Address: 45 Ora Way #302
San Francisco CA 94131

Job No.: 4751

APN: 105-130-027

Location: 6012 SOUTH BANK RD (EXISTING RESIDENCE)

Lot Size: 1 AC (2 AC W/ LLA)

Water System: HILLSIDE SPRING & TANK

Ground Slope: <2% DOWN TO EAST

Setbacks: (Delnorte County Minimum)	Septic tank	Leach Field
Property Line	✓ (10')	✓ (10')
Well	✓ (100')	✓ (100')
Water Line	? (10')	? (10')
Stream	✓ (100')	✓ (100')
Drainage Channel	~ (50')	~ (50')
Ocean, Lake, etc.	NA (50')	NA (100')
Bluff or Cutback	✓ (25')	✓ (25')

Primary Area Site(s): EXISTING LEACHFIELD

Replacement Site(s): TP-1

Other excavations NONE

Depth to Hardpan, Bedrock, Etc.: NOT FOUND

Depth To Groundwater: NOT FOUND

Depth to Mottling: NOT OBSERVED

Other Factors: EXISTING HOME W/ SEPTIC TANK & LEACHFIELD

Soil analysis zone:

Percolation Rate: 7.5 MPI

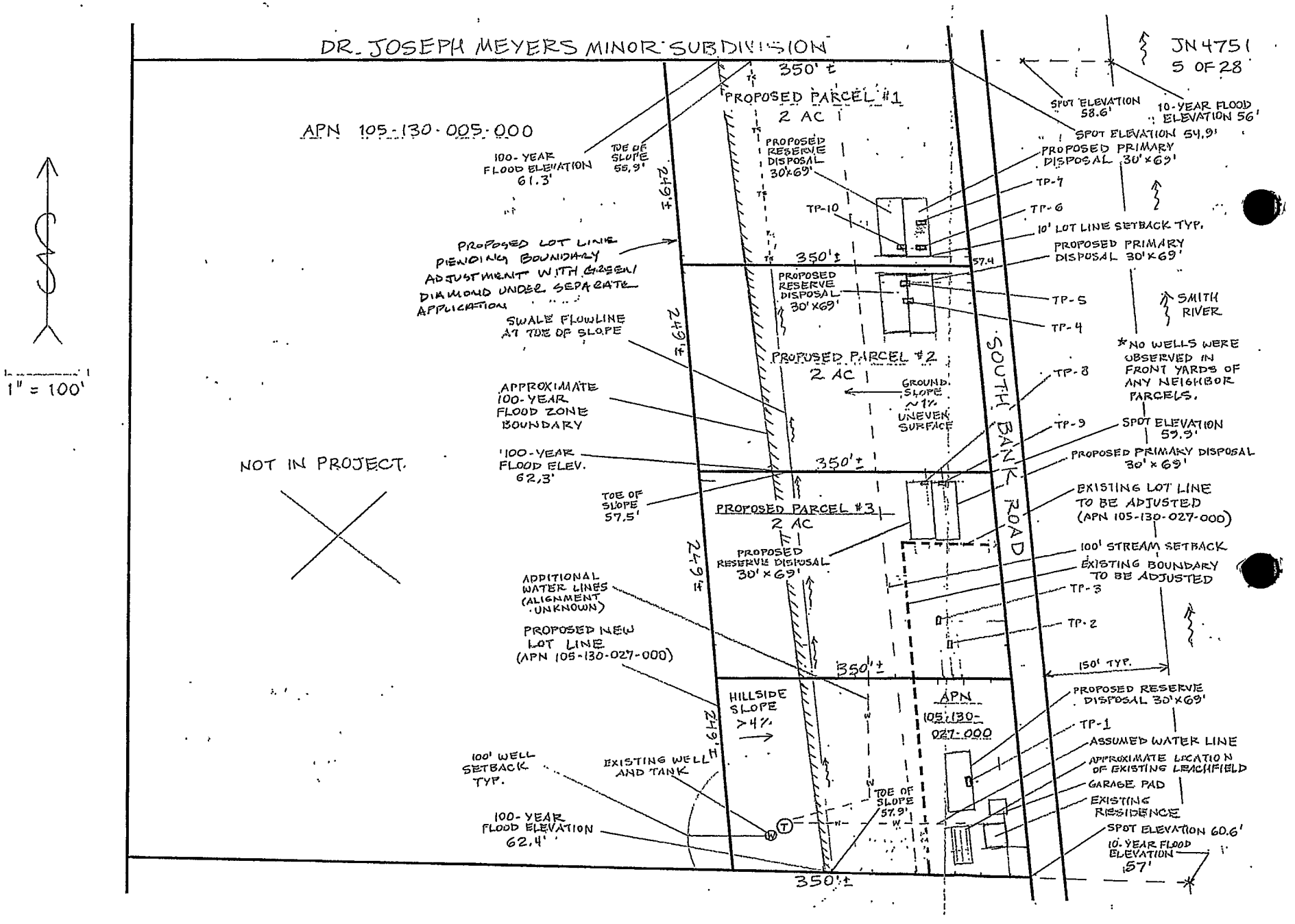
Depth of Soils under leachfield Required: 5 ft

Actual Depth Available: >5 ft

Replacement Area Available: YES

Adequate? YES

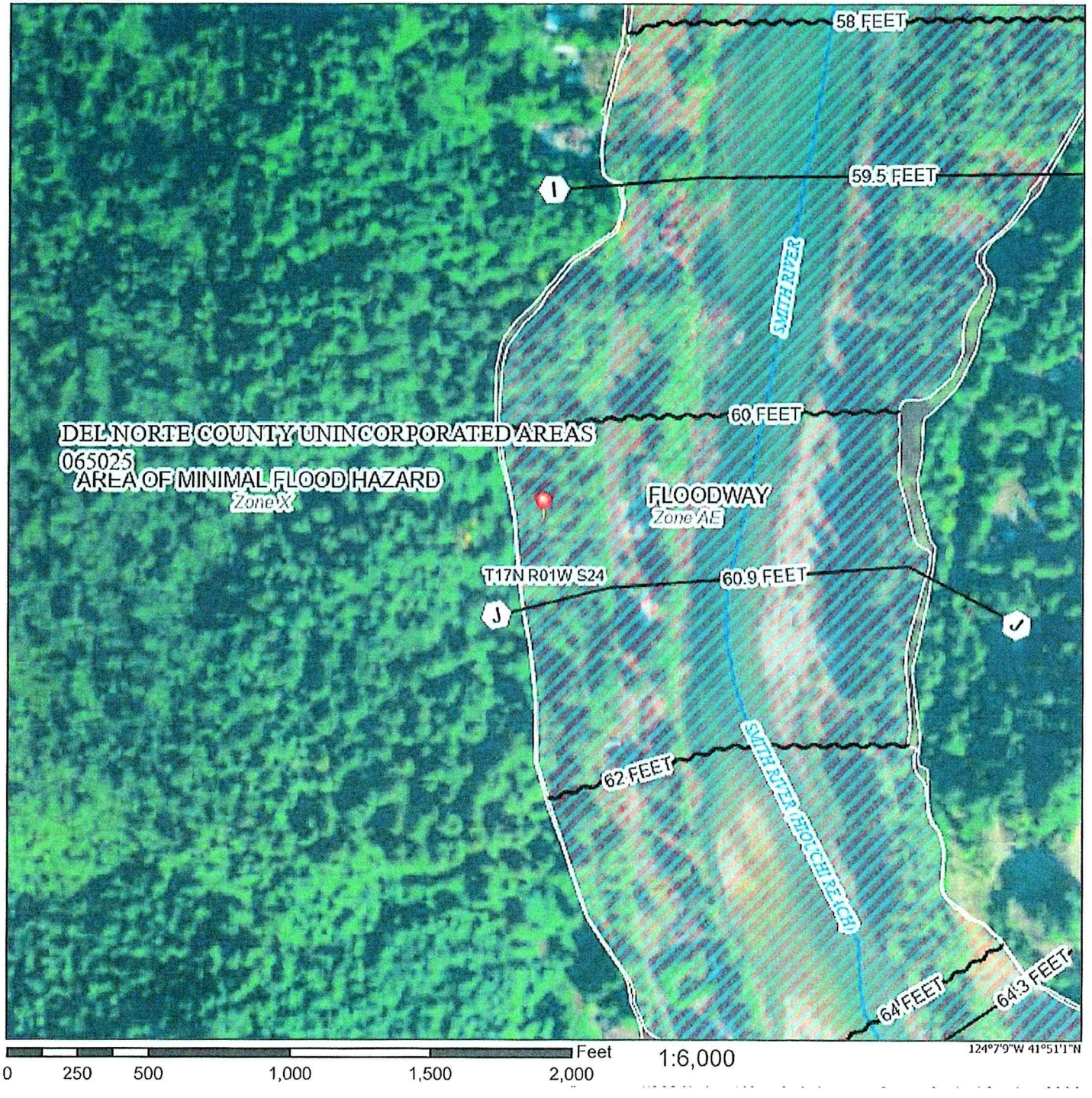
Other Comments: RESERVE AREA NEEDED FOR BOUNDARY ADJUSTMENT
EXISTING LEACHFIELD APPEARS TO BE FUNCTIONING NORMALLY


DR. JOSEPH MEYERS MINOR SUBDIVISION
JN 4751
5 OF 28
APN 105-130-005-000
1" = 100'
350' ±
PROPOSED PARCEL #1
2 AC
PROPOSED PARCEL #2
2 AC
PROPOSED PARCEL #3
2 AC
249' ±
100-YEAR FLOOD ELEVATION 61.3'
TOE OF SLOPE 55.9'
PROPOSED RESERVE DISPOSAL 30'x69'
PROPOSED PRIMARY DISPOSAL 30'x69'
TP-10
TP-7
TP-6
TP-5
TP-4
TP-3
TP-2
TP-1
10' LOT LINE SETBACK TYP.
PROPOSED LOT LINE PENDING BOUNDARY ADJUSTMENT WITH GISELI DIAMOND UNDER SEPARATE APPLICATION
SWALE FLOWLINE AT TOE OF SLOPE
APPROXIMATE 100-YEAR FLOOD ZONE BOUNDARY
100-YEAR FLOOD ELEV. 62.3'
NOT IN PROJECT.
GROUND SLOPE ~1% UNEVEN SURFACE
TOE OF SLOPE 57.5'
ADDITIONAL WATER LINES (ALIGNMENT UNKNOWN)
PROPOSED NEW LOT LINE (APN 105-130-027-000)
HILLSIDE SLOPE >4%
100' WELL SETBACK TYP.
EXISTING WELL AND TANK
100-YEAR FLOOD ELEVATION 62.4'
TOE OF SLOPE 57.9'
APN 105-130-027-000
SOUTH BANK ROAD
SPOT ELEVATION 58.6'
10-YEAR FLOOD ELEVATION 56'
SPOT ELEVATION 54.9'
SMITH RIVER
*NO WELLS WERE OBSERVED IN FRONT YARDS OF ANY NEIGHBOR PARCELS.
SPOT ELEVATION 59.9'
EXISTING LOT LINE TO BE ADJUSTED (APN 105-130-027-000)
100' STREAM SETBACK
EXISTING BOUNDARY TO BE ADJUSTED
150' TYP.
ASSUMED WATER LINE
APPROXIMATE LOCATION OF EXISTING LEACHFIELD
GARAGE PAD
EXISTING RESIDENCE
SPOT ELEVATION 60.6'
10-YEAR FLOOD ELEVATION 57'

National Flood Hazard Layer FIRMette

FEMA

124°7'46"W 41°51'28"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

124°7'9"W 41°51'1"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/11/2021 at 8:26 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

JN 1751 SHEET 6 OF 29

EXPLORATION TEST LOG

by GBG

Project Name MEYERS SUBD. Job Number 4751 Date 4/2/21

Hole Number # 1 Hole Type BACKHOE APN 105-130-027

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
		BROWN	TOPSOIL	LOOSE	DRY
	1	GRAY BROWN	SANDY LOAM	GRANULAR	DRY TO MOIST +/-
	2				
PERC	3				
	4				
	5				
	6				
	7				
	8	BROWN SANDY CLAY/CLAY LOAM BLOCKY WET			
		NO WATER			
	9	BOTTOM OF HOLE			
	10				
	11				
	12				

EXPLORATION TEST LOG

by GBG

Project Name MEYERS SUBD. Job Number 4751 Date 4/2/21

Hole Number #2 Hole Type BACKHOE APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
		BROWN	TOPSOIL	GRANULAR	DRY +/-
	1	GRAY BROWN	SANDY CLAY	GRANULAR/ BLOCKY	MOIST
	2				
PERC	3				
	4				
	5				
	6				
	7				
	8	BROWN	CLAY	BLOCKY	WET
	9	////// NO WATER ////////// BOTTOM OF HOLE			
	10				
	11				
	12				

EXPLORATION TEST LOG

by GBG

Project Name MEYERS SUBD. Job Number 4751 Date 4/2/21

Hole Number #3 Hole Type BACKHOE APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
		BROWN	TOPSOIL	GRANULAR	DRY +/-
	1	GRAY BROWN	SILTY CLAY	BLOCKY	MOIST
	2				
PERC	3				
	4				
	5				
	6				
	7				
	8	BROWN	CLAY	BLOCKY	WET
	9	BOTTOM OF HOLE- NO WATER			
	10				
	11				
	12				

EXPLORATION TEST LOG

by GBG

Project Name MEYERS SUBD. Job Number 4751 Date 4/2/21

Hole Number # 4 Hole Type BACKHOE APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
	1	GRAY	GRAVEL	GRANULAR	DRY
	2	BROWN	SANDY LOAM	GRANULAR	MOIST
PERC	3				
	4				
	5				
	6				
	7				
	8	BROWN	SANDY CLAY	BLOCKY	WET
	9	BOTTOM OF HOLE NO WATER			
	10				
	11				
	12				

EXPLORATION TEST LOG

by GBG

Project Name MEYERS SUBD | Job Number 4751 | Date 4/2/21

Hole Number #5 | Hole Type BACKHOE | APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
	1	GRAY	GRAVEL	GRANULAR	DRY
	2	BROWN	SANDY LOAM -OR- SANDY CLAY LOAM	GRANULAR	MOIST
PERC	3				
	4				
	5				
	6				
	7				
	8	BROWN	SANDY CLAY	BLOCKY	WET
	9	BOTTOM OF HOLE - NO WATER			
	10				
	11				
	12				

EXPLORATION TEST LOG

by GBG

Project Name MEYERS SUBD. Job Number 4751 Date 4/2/21

Hole Number #6 Hole Type BACKHOE APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
	1	BROWN	TOPSOIL W/ ROOTS		DRY +/-
PERC	2	BROWN	SANDY LOAM	GRANULAR	MOIST
	3				
	4				
	5				
	6				
	7				
	8	BROWN	SANDY CLAY	BLOCKY	WET
	9	BOTTOM OF HOLE NO WATER			
	10				
	11				
	12				

EXPLORATION TEST LOG

by GBG

Project Name MEYERS SUBD. Job Number 4751 Date 4/2/21

Hole Number #7 Hole Type BACKHOE APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
	1	BROWN	TOPSOIL W/ ROOTS		DRY +/-
NO PERC TEST	2	BROWN	CLAY LOAM	GRANULAR	MOIST
	3				
	4				
	5				
	6				
	7	BROWN	CLAY	BLOCKY	WET
	8				
	9	NO WATER BOTTOM OF HOLE			
	10				
	11				
	12				

EXPLORATION TEST LOG

by GBG

Project Name MEYERS | Job Number 4751 | Date 4/6/21

Hole Number 8 | Hole Type BACKHOE | APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
	1	DARK BROWN	TOPSOIL	LOOSE	DRY
	2	GRAY BROWN	SANDY LOAM	GRANULAR	MOIST
PERC	3	BROWN	CLAY LOAM	BLOCKY	MOIST
	4			ROOTS DOWN TO 4' BGS	
	5				
	6				
	7				
	8	BROWN	CLAY LOAM	BLOCKY	WET
	9	BOTTOM OF HOLE NO WATER			
	10				
	11				
	12				

EXPLORATION TEST LOG

by GBG

Project Name MEYERS Job Number 4751 Date 4/6/21

Hole Number 9 Hole Type BACKHOE APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
	1	DARK BROWN	TOPSOIL ROOTS	LOOSE GRANULAR	NEARLY DRY
	2	GRAY BROWN	SANDY CLAY LOAM	GRANULAR	MOIST
PERC	3				
	4	BROWN	SILT LOAM -OR- CLAY LOAM	ROOTS DOWN TO 4' BGS; BLOCKY	MOIST
	5				
	6				
	7				
	8	BROWN	CLAY LOAM	BLOCKY	WET
	9	BOTTOM OF HOLE NO WATER			
	10				
	11				
	12				

EXPLORATION TEST LOG

by SBS

Project Name MEIERS | Job Number 4751 | Date 4/6/21

Hole Number 10 | Hole Type BACKHOE | APN 105-130-005

Soil Sample	Depth (ft) 0'	Soil Description			
		Color	Type	Structure	Saturation
	1	BROWN	TOPSOIL W/ ROOTS	LOOSE	DRY
	2	BROWN	SANDY LOAM	GRANULAR	MOIST
PERC	3				
	4	BROWN	CLAY LOAM	BLOCKY	MOIST
	5				
	6				
	7	BROWN	CLAY LOAM	BLOCKY	WET
	8				
	9	BOTTOM OF HOLE NO WATER			
	10				
	11				
	12				

STOVER ENGINEERING

PERCOLATION TEST LOG

Project Name MEYERS SUBD. Job # 4751 Test Date 4/2/21 Logged By GBG

Hole Number # 1 Hole Type BACKHOE/HAND Hole Elevation Water Table 78" BGS

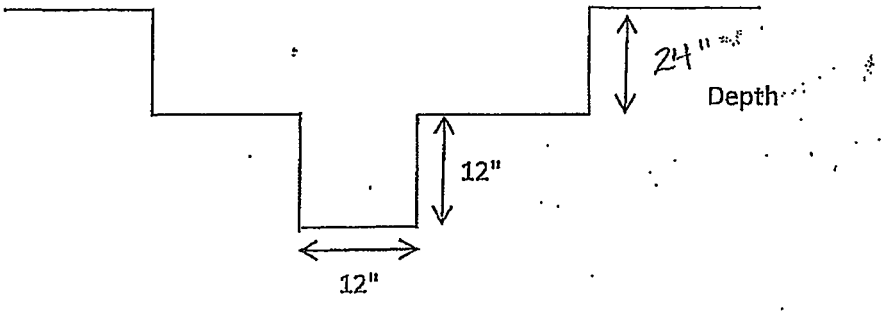
Soil Type SANDY LOAM Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
1:35	1:50	7	10.25	17	3.25	5.2
1:50	2:07	7.25	9.75	15	2.5	6.0
2:07	2:20	9.75	11.0	15	1.25	12.0
2:20	2:37	6.25	9	~~15~~ 17	2.75	6.2
~~2:35~~ 2:37	2:50	6.5	8.5	15	2	7.5
2:50	3:05	6.5	8.5	15	2	7.5
3:09	3:24	6.5	8.5	15	2	7.5
~~3:20~~ 3:24	3:39	6.5	8.5	15	2	7.5

Maximum Allowable Percolation Rate = 5 min/inch

Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = 7.5 MIN/INCH



STOVER ENGINEERING

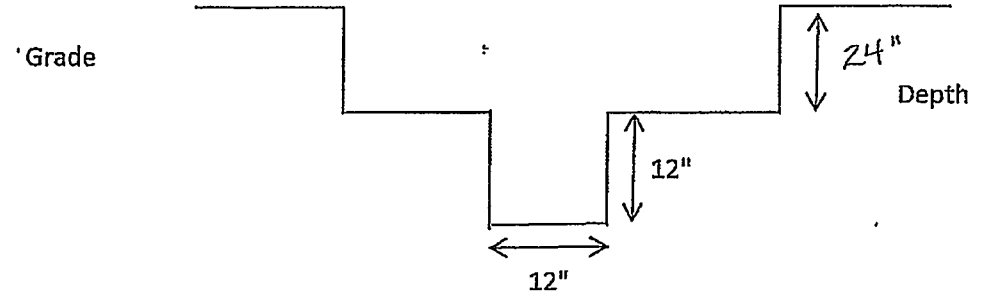
PERCOLATION TEST LOG

Project Name MEYERS SUBD. Job # 4751 Test Date 4/2/21 Logged By GBG
Hole Number #2 Hole Type BACKHOE/HAND Hole Elevation Water Table >8' BGS
Soil Type SANDY CLAY Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
1:39	1:54	7	7.75	15	0.75	20
1:54	2:09	7.75	8.5	15	0.75	20
2:09	2:24	6.25	7	15	0.75	20
2:24	2:39	7	7.75	15	0.75	20
2:39	2:54	7.75	8.25	15	0.5	30
2:54	3:12	6	6.75	~~15~~ 18	0.75	24
3:12	3:27	6.25	7	15	0.75	20
3:27	3:42	5.75	6.5	15	0.75	20

Maximum Allowable Percolation Rate = 5 min/inch
Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = 20 MIN/INCH



STOVER ENGINEERING

PERCOLATION TEST LOG

Project Name MEYERS SUBD Job # 4751 Test Date 4/2/21 Logged By GBG

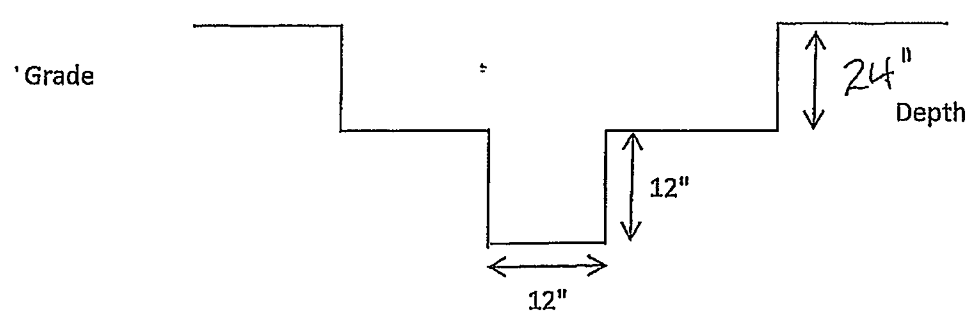
Hole Number #3 Hole Type BACKHOE/HAND Hole Elevation Water Table 78' BGS

Soil Type SILTY CLAY Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
1:41	1:56	7	7.5	15	0.5	30
1:56	2:11	7.5	7.5	15	Ø	∞ NOT PERCING
2:11	2:26	7.5	7.75	15	0.25	60
2:26	2:41	7.75	8	15	0.25	60
2:41	2:56	6.75	7	15	0.25	60
2:56	3:14	7	7.25	18	0.25	60
3:14	3:29	7.25	7.25	15	Ø	∞ NOT PERCING
3:29	3:44	7.25	7.25	15	Ø	NOT PERCING

Maximum Allowable Percolation Rate = 5 min/inch
Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = X MIN/INCH
DOES NOT PERC



STOVER ENGINEERING

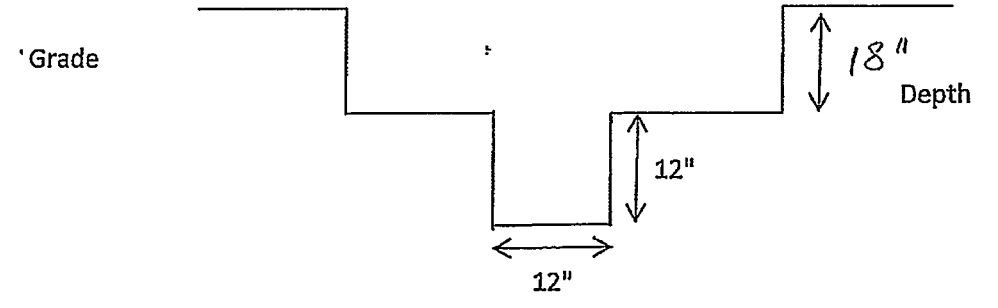
PERCOLATION TEST LOG

Project Name MEYERS SUBD Job # 4751 Test Date 4/9/21 Logged By SB6
Hole Number #4 Hole Type BACKHOE/HAND Hole Elevation Water Table >8' BGS
Soil Type SANDY LOAM OR S.C.L. Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
9:05	9:20	6.75	9	15	2.25	6.7
9:20	9:35	6.5	8	15	1.5	10
9:35	9:50	6	7.5	15	1.5	10
9:50	10:05	6.25	7.25	15	1.0	15
10:05	10:20	7.25	8.25	15	1.0	15
10:20	10:35	6.25	7.25	15	1.0	15
10:35	10:50	5.75	6.75	15	1.0	15
10:50	11:05	5.5	6.5	15	1.0	15

Maximum Allowable Percolation Rate = 5 min/inch
Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = 15 MIN/INCH



STOVER ENGINEERING

PERCOLATION TEST LOG

Project Name MEYERS SUBD. Job # 4751 Test Date 4/9/21 Logged By GBG

Hole Number #5 Hole Type BACKHOE/HAND Hole Elevation Water Table >8' BGS

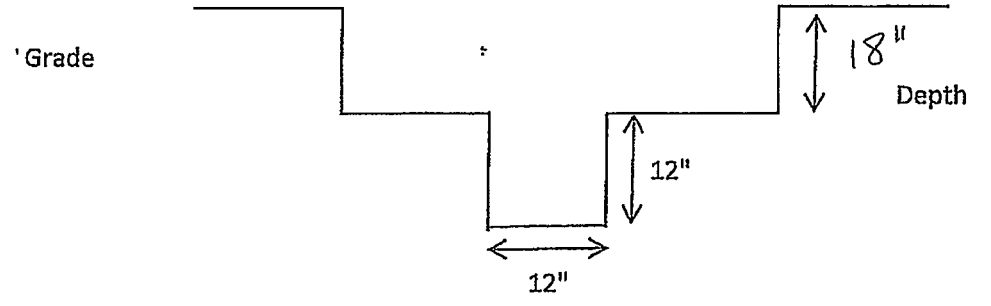
Soil Type SANDY CLAY LOAM Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
9:07	9:22	8.5	9.75	15	1.25	12
9:22	9:37	7.5	8.25	15	0.75	20
9:37	9:52	7	7.75	15	0.75	20
9:52	10:07	6.75	7.25	15	0.5	30
10:07	10:22	7.25	8.25	15	1.0	15
10:22	10:37	8.25	8.75	15	0.5	30
10:37	10:52	8.75	9.25	15	0.5	30
10:52	11:07	7.0	7.5	15	0.5	30

Maximum Allowable Percolation Rate = 5 min/inch

Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = 30 MIN/INCH



STOVER ENGINEERING

PERCOLATION TEST LOG

Project Name MEYERS SUBD. Job # 4751 Test Date 4/9/21 Logged By GBG

Hole Number #6 Hole Type BACKHOE/HAND Hole Elevation Water Table >8' BGS

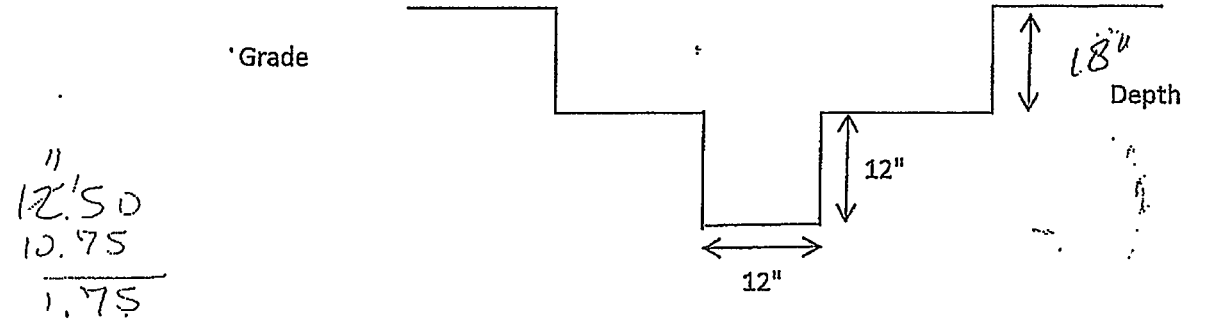
Soil Type SANDY LOAM Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
9:26	9:41	10.75	12.5	15	1.75	8.6
9:41	9:56	10.5	12.0	15	1.5	10
9:56	10:11	7.5	9.5	15	2.0	7.5
10:11	10:26	9.5	10.75	15	1.25	12
10:26	10:41	6.5	8.75	15	2.25	6.7
10:41	10:56	6.0	8.0	15	2.0	7.5
10:56	11:11	6.5	8.25	15	1.75	8.6
11:11	11:26	6.0	7.75	15	1.75	8.6

Maximum Allowable Percolation Rate = 5 min/inch

Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = 8.6 MIN/INCH



12.50
10.75
1.75

STOVER ENGINEERING

PERCOLATION TEST LOG

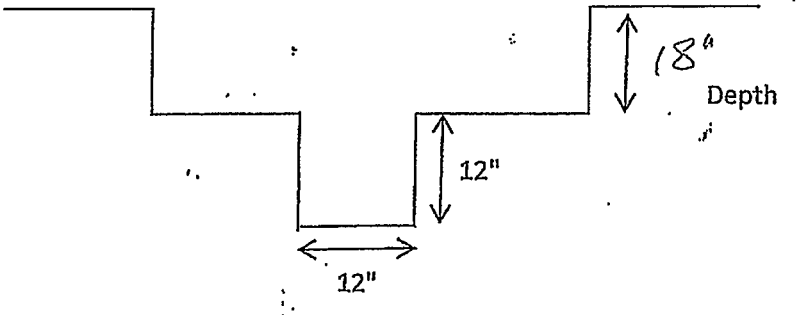
Project Name MEYERS SUBD. Job # 4751 Test Date 4/9/21 Logged By GBG
Hole Number 8 Hole Type BACKHOE/HAND Hole Elevation Water Table >8' BGS
Soil Type SANDY LOAM/CLAY LOAM Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
9:31	9:46	7.75	8.5	15	0.75	20
9:46	10:01	7.0	7.75	15	0.75	20
10:01	10:16	6.75	7.25	15	0.5	30
10:16	10:31	7.25	7.75	15	0.5	30
10:31	10:46	6.5	7.0	15	0.5	30
10:46	11:01	7.0	7.5	15	0.5	30
11:01	11:16	6.25	6.75	15	0.5	30
11:16	11:31	6.75	7.25	15	0.5	30

Maximum Allowable Percolation Rate = 5 min/inch
Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = 30 MIN/INCH

8.50
7.75
0.75



STOVER ENGINEERING

PERCOLATION TEST LOG

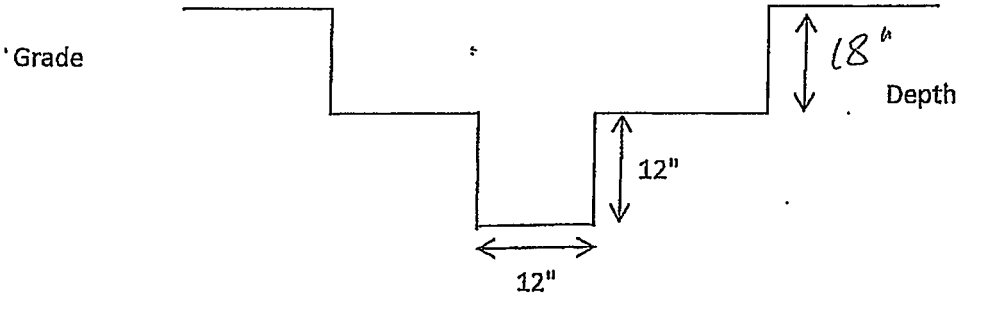
Project Name MEYERS SUBD. Job # 4751 Test Date 4/9/21 Logged By GBG
Hole Number 9 Hole Type BACKHOE/HAND Hole Elevation Water Table 78' BGS
Soil Type SANDY CLAY LOAM Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
9:32	9:47	7.25	7.75	15	0.5	30
9:47	10:02	6.5	7.0	15	0.5	30
10:02	10:17	6.25	6.75	15	0.5	30
10:17	10:32	6.75	7.0	15	0.25	60
10:32	10:47	5.25	5.75	15	0.5	30
10:47	11:02	5.75	6.0	15	0.25	60
11:02	11:17	6.0	6.5	15	0.5	30
11:17	11:32	6.5	6.75	15	0.25	60

45 MPI

Maximum Allowable Percolation Rate = 5 min/inch
Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = 45 MIN/INCH



STOVER ENGINEERING

PERCOLATION TEST LOG

Project Name MEYERS SUBD. Job # 4751 Test Date 4/9/21 Logged By GBG

Hole Number 10 Hole Type BACKHOE/HAND Hole Elevation Water Table 78' BGS

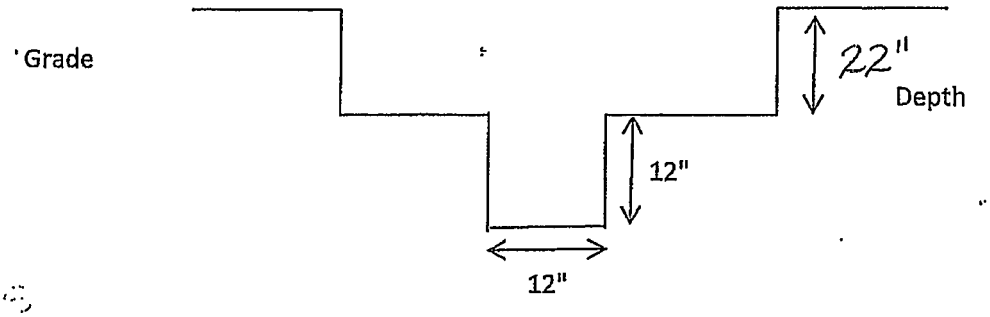
Soil Type SANDY LOAM Water Supply BUCKET APN 105-130-005

Begin Time	End Time	Begin Level (inch)	End Level (inch)	Elapsed Time (minutes)	Drop (inch)	Rate (min/inch)
9:09	9:24	6.25	9.0	15	2.75	5.5
9:24	9:39	6.5	8.25	15	1.75	8.6
9:39	9:54	6.75	8.50	15	1.75	8.6
9:54	10:09	7.75	9.0	15	1.25	12
10:09	10:24	9.0	10.25	15	1.25	12
10:24	10:39	6.75	8.5	15	1.75	8.6
10:39	10:54	6.0	8.0	15	2.0	7.5
10:54	11:09	5.75	7.75	15	2.0	7.5

Maximum Allowable Percolation Rate = 5 min/inch

Minimum Allowable Percolation Rate = 60 min/inch

STABILIZED RATE = 7.5 MIN/INCH

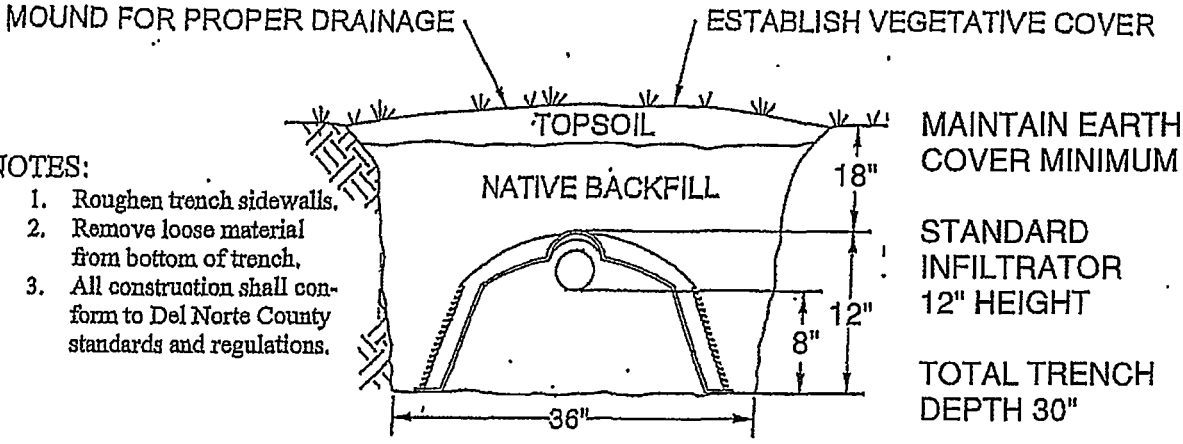


10

STOVER ENGINEERING
711 H Street
Crescent City, CA 95531
(707) 465-6742 Fax (707) 465-5922

JOB 4751
SHEET NO. 26 OF 28
CALCULATED BY GBS DATE 4/12/21
CHECKED BY MH DATE 4-13-21
SCALE N/A

TRENCH DETAIL



NOTES:
1. Roughen trench sidewalls.
2. Remove loose material from bottom of trench.
3. All construction shall conform to Del Norte County standards and regulations.

LEACHFIELD
Percolation Rate = 45 MPI Therefore, Application Rate = 0.45 GPD/SF

THIS IS THE WORST CASE PERCOLATION RATE

NORTH COAST BASIN PLAN

Table 4-2. RATES OF WASTEWATER APPLICATION FOR ABSORPTION AREAS

Soil Texture	Percolation Rate Minutes per Inch	Application Rate Gallons per Day per Square Foot
Gravel, coarse sand	<1	Not Suitable
Coarse to medium sand	1 - 5	1.2
Fine sand, loamy sand	6 - 15	1.1 - 0.8
Sandy loam, loam	16 - 30	0.7 - 0.6
Loam, porous silt loam	31 - 60	0.5 - 0.4
Silty clay loam, clay loam -a,b	61 - 120	0.4 - 0.2

Note: Application rates may be interpolated based on percolation rates, within the ranges listed above.

a. Soils without expandable clays.
b. These soils may be easily damaged during construction.

STOVER ENGINEERING

Job Number 4751
Calc By GBG
Checked By WCS

27 OF 28

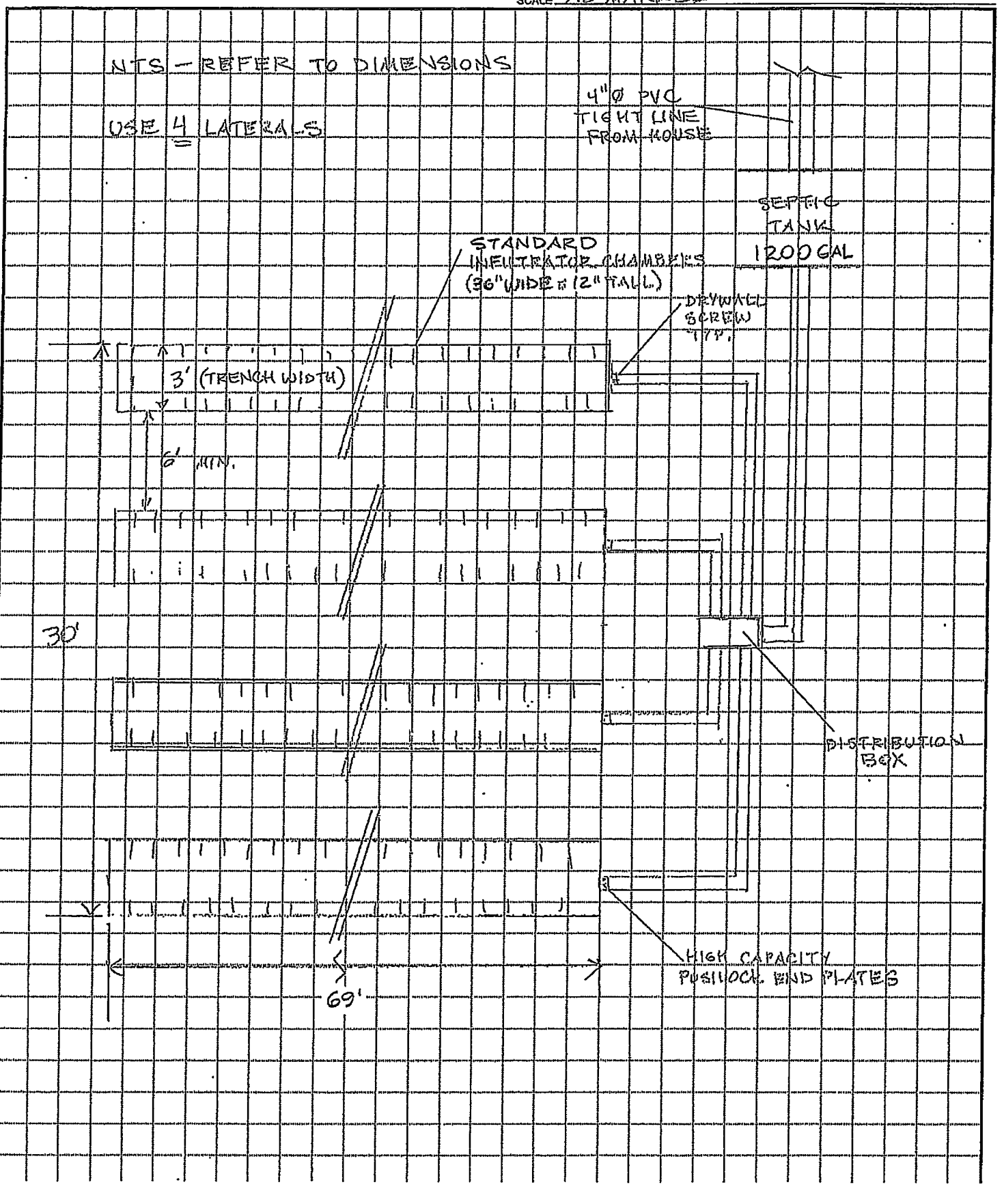
Dr. Meyers Minor Subdivision Disposal Field Design

01 - Determine Peak Flow	Peak Flow =	450	gpd	
	Based on Del Norte County Code 14.12.130 Table B			
02 - Determine Septic Tank Size	Septic Tank Size =	1200	gal	
	1000 gal minimum per UPC			
	1200 gal minimum per Del Norte County Code			
03 - Required Absorption Area	Soil Infiltration Rate, IR =	0.45	gpd/ft^2	
	Based on percolation testing and North Coast Regional Basin Plan 2018			
	AA =	1000	ft^2	(Flow/IR)
04 - Determine Trench Length	L_1 =	333	ft	(AA/W_1)
	W_1 =	3	ft	
	Depth =	2.5	ft	
	Reduction Factor, RF =	83	%	(Table 3, Manual of Septic Tank Practice)
05 - Determine Adjusted Length	L_2 =	278	ft	(L_1*RF)
	No. Laterals, No.L =	4		
	Lateral Spacing, S =	6	ft	
	Del Norte requires 6' minimum, Humboldt 10' minimum			
	Else use twice the depth, W_1			
	Lateral Length, L_3 =	69	ft	(L_2/No.L) OK
	L_3 <70' recommended, <100' required for conventional			
	Total Leachfield Width, W =	30	ft	(No.L*W_1 + S*(No.L -1)

Note: For pressure distribution network the maximum lateral length may be larger than 100 ft and is determined based on head loss.

STOVER ENGINEERING
711 H Street
Crescent City, CA 95531
(707) 465-6742 Fax (707) 465-5922

JOB 4751
SHEET NO. 28 OF 28
CALCULATED BY GBG DATE 4/14/21
CHECKED BY WLS DATE 5/23/21
SCALE AS MARKED



GALEA BIOLOGICAL CONSULTING

200 Raccoon Court Crescent City California 95531
Tel: 707-218-6039 E-mail: frankgalea@charter.net

BIOLOGICAL ASSESSMENT FOR MYERS PROPERTY, SOUTH BANK ROAD, DEL NORTE COUNTY. APN # 105-130-000

Submitted to: Roy Tedson
Investment Realty
1495 Parkway Drive
Crescent City, CA 95531

Prepared by: Frank Galea, Certified Wildlife Biologist
E-mail: frankgalea@charter.net

Galea Biological Consulting
200 Raccoon Court
Crescent City, CA 95531

Submitted: September, 2021

By:

TABLE OF CONTENTS

A biological assessment was prepared for the Joseph Myers (Applicant) property located on South Bank Road in Del Norte County (Figure 1). The Applicant proposes a minor subdivision on a 23.43 acre property. Galea Biological Consulting (GBC) Incorporated was contracted to provide a general biological assessment to determine the potential impacts of the project on sensitive wildlife species, including federally or state listed species, and species of special concern. Additionally, GBC conducted a review of habitats within and adjacent to the project area to determine the location of wetlands or watercourses which may be present and to ensure that such habitats were not impacted.

The property has a small drainage channel which runs through it, with associated wetlands. Wetlands were located, delineated along the east edge where development would occur, and mapped. A fifty-foot non-development buffer was recommended for wetlands immediately adjacent to the drainage channel, and a 25-foot non-development buffer for wetlands separate from the drainage channel.

With recommended non-development buffers for wetlands, this project should have no significant impacts upon any sensitive or rare species.

2.0 INTRODUCTION

2.1 Project Description

The Applicant plans to subdivide a 24.42-acre property into 4 parcels for single family homes with the balance of the property remaining in timber production. As one of the lots pre-exists but is not suitable in shape for the subdivision, a lot-line adjustment would be necessary to achieve similar lot sizes.

2.2 Environmental Setting

The property is located on the west side of South Bank Road, which is located along the south bank of the Smith River. South Bank Road runs directly east of the property. The undeveloped parcel has a hill of timberland to the west and rural residential parcels to the east, north and south.

2.3 Physical Environment

The climate of northern California is characterized as Mediterranean, with cool, wet winters and warm, dry summers with frequent fog. Along the coastline, proximity to the Pacific Ocean produces high levels of humidity and results in abundant fog and fog drip precipitation. The maritime influence diminishes with distance from the coast, resulting in lesser amounts of fog, drier summer conditions and more variable temperatures. Annual precipitation in the project watershed ranges from 60-150 inches occurring primarily as rain during the winter months. Air temperatures measured in the Crescent City area vary from 41°F to 67°F annually.

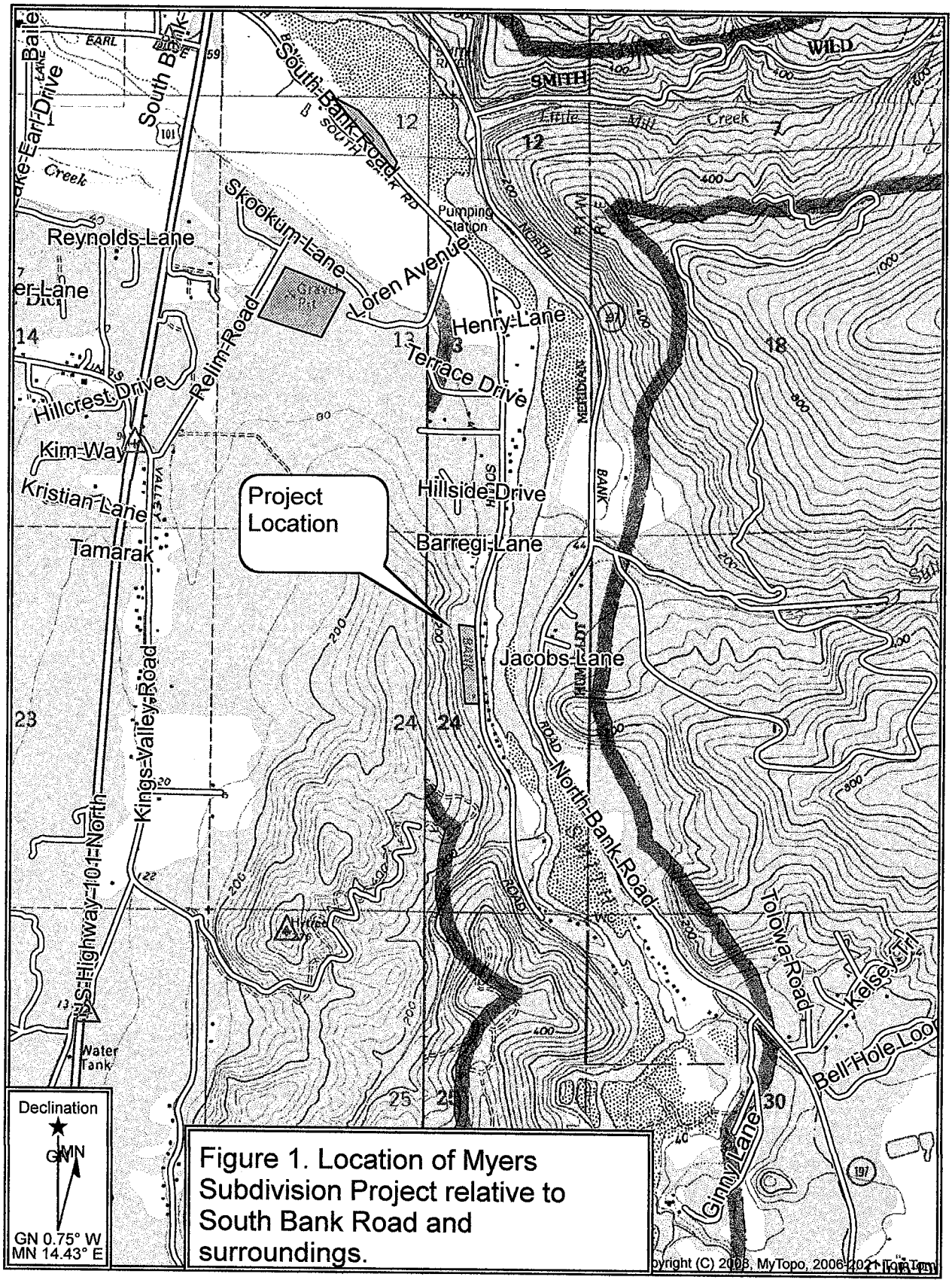


Figure 1. Location of Myers Subdivision Project relative to South Bank Road and surroundings.

2.4 Regulatory Context

The project is located within the geographic range of several special- status plant and wildlife species. Biological resources on the site may be subject to agency jurisdictions and regulations, as described below.

(a) U.S. Fish and Wildlife Service (USFWS). The USFWS has jurisdiction over species listed as threatened or endangered under the federal Endangered Species Act (ESA). The ESA protects listed species from "take," broadly defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." An activity is defined as a "take" even if unintentional or accidental. An endangered plant or wildlife species is one that is considered in danger of becoming extinct throughout all, or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future. In addition to endangered and threatened species, the USFWS has a list of candidate species, which are those for which the USFWS currently has enough information to support a proposal for listing. Section 9 of the ESA and its applicable regulations restrict certain activities with respect to endangered and threatened plants. However, these restrictions are less stringent than those applicable to fish and wildlife species. These provisions prohibit the removal of, malicious damage to, or destruction of any listed plant species "from areas under federal jurisdiction." Listed plants may not be cut, dug up, damaged or destroyed, or removed from any other area (including private lands) in knowing violation of a State law or regulation.

(b) Raptors & Migratory Bird Treaty Act (MBTA). The MBTA (16 United States Code [USC] 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union and authorized the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. The MBTA sets seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703, 50 CFR 21, 50 CFR 10).

(c) U.S. Army Corps of Engineers. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers is responsible for regulating the discharge of fill material into waters of the U.S. Waters of the U.S. and their lateral limits are defined in 33 CFR (Code of Federal Regulations) Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed "isolated wetlands" and may be subject to U.S. Army Corps of Engineers jurisdiction.

(d) California Department of Fish and Wildlife (CDF&W). The CDF&W has jurisdiction over threatened or endangered species that are formally listed by the State under the California Endangered Species Act (CESA). The CESA is similar to the federal Endangered Species Act both in process and substance; it is intended to provide additional protection to threatened and endangered species in California.

The CESA does not supersede the federal Endangered Species Act, but operates in conjunction with it. Species may be listed as threatened or endangered under both acts (in which case the provisions of both State and federal laws would apply) or under only one act. The California endangered species laws prohibit the taking of any plant listed as threatened, endangered, or rare. In California, an activity on private lands (such as development) will violate Section 9 of the Endangered Species Act if a plant species, listed under both State and federal endangered species laws, is intentionally

removed, damaged, or destroyed. Under the State Fish and Game Code, the CDF&W also has jurisdiction over species that are designated as "fully protected." These species are protected against direct impacts. The CDF&W maintains informal lists of species of special concern, which are broadly defined as plants and wildlife that are of concern to CDF&W because of population declines and restricted distributions, and/or they are associated with habitats that are declining in California. These species, as well as threatened and endangered species, are inventoried in the California Natural Diversity Database.

The CDF&W also exerts jurisdiction over the bed and banks of watercourses according to the provisions of Section 1600 to 1616 of the Fish and Game Code. The Department requires a Streambed Alteration Permit for the fill or removal of any material from any natural drainage. CDF&W's jurisdiction extends to the top of banks and may include the outer edge of riparian vegetation canopy cover.

(e) California Native Plant Society (CNPS). The CNPS has developed lists of plants of special concern in California. A CNPS List IA plant is a species, subspecies, or variety that is considered to be extinct. A List 1B plant is considered rare, threatened, or endangered in California and elsewhere. A List 2 plant is considered rare, threatened, or endangered in California, but is more common elsewhere. A List 3 plant is a species for which CNPS lacks necessary information to determine if it should be assigned to a list or not. A List 4 plant has a limited distribution in California. All List 1 and List 2 plant species meet the requirements of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the CDF&G Code, and are eligible for State listing. Therefore, List 1 and 2 species should be considered under CEQA. Very few List 3 and List 4 plants are eligible for listing, but may be locally important, and their listing status could be elevated if conditions change.

(f) CEQA Guidelines, Section 15380. Although threatened and endangered species are protected by specific federal and State statutes, the CEQA Guidelines in Section 15380(b) provide that a species not included on the federal or State lists of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the federal Endangered Species Act and the CDFG Code. This section was included in the CEQA Guidelines primarily to deal with situations in which a public lead agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW. Thus, CEQA provides a lead agency with the ability to protect a species from a project's potential impacts until government agencies have an opportunity to designate the species as protected, if warranted.

(g) Regional Water Quality Control Board. Pursuant to Section 401 of the Clean Water Act, projects that apply for a U.S. Army Corps of Engineers permit for discharge of dredge or fill material, and projects that qualify for a Nationwide Permit, must obtain water quality certification from the Regional Water Quality Control Board (RWQCB) that the project will uphold State water quality standards. Alternatively, the RWQCB may elect to notify an applicant that the State may issue Waste Discharge Requirements in lieu of a Section 401 certification.

(h) California Coastal Commission. The California Coastal Commission (CCC) is a state regulatory agency whose primary role is the protection of coastal resources. This project is not located within the coastal zone, therefore CCC protection measures would not apply.

3.0 METHODS

3.1 Records Search

A records search of the California Department of Fish and Wildlife's (CDF&W) Natural Diversity Data Base (September, 2021) was conducted to determine if special-status plant or animal species had been previously reported near the project area. Listed and sensitive wildlife species potentially occurring within two miles of the project area are presented in Table 1.

Special-Status Species and Significant Natural Communities.

The following special-status species and sensitive community types were considered in this evaluation:

- Species that are listed, or designated as candidates for listing, as threatened or endangered under the federal Endangered Species Act;
- Species that are listed, or designated as candidates for listing as rare (plants), threatened, or endangered under the California Endangered Species Act;
- Wildlife species listed by the CDF&W as species of special concern or fully protected species;
- Communities designated by the CDFW to be "significant" natural communities;
- Plant species on List 1A, List 1B, and List 2, in the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California;
- Species that meet the definition of rare or endangered under the California Environmental Quality Act (under Section 15380 of CEQA, a species not included on any formal list "shall nevertheless be considered rare or endangered if the species can be shown to meet the criteria" for listing); and
- Taxa of special concern by local agencies.

3.2 Wetland Delineation

Wetlands in the access corridor were delineated pursuant to the 1987 Corps of Engineers *Wetlands Delineation Manual* (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual Western Mountains, Valleys, and Coast Region (Version 2.0) (ACOE 2010). Twenty-one sample plots were used to conduct the wetland delineation. GPS was used to locate each point, and these were mapped to provide a mapped delineation of the wetlands.

Hydrophytic Vegetation: The wetland indicator status of each plant species in the sample plots was determined using the ACOE 2014 National Wetland Plant List. The indicator status of plants is based on the estimated probability of the species occurring in wetlands. The indicator status categories are:

Obligate Wetland Plants (OBL) Almost always occur in wetlands >99% frequency
Facultative Wetland Plants (FACW) Usually occur in wetlands 67%-99%
Facultative Plants (FAC) Equally occur in wetlands and non-wetlands 33%-67%
Facultative Upland Plants (FACU) Sometimes occur in wetlands 1%-33%
Obligate Upland Plants (UPL) Rarely occur in wetlands <1%

If more than 50% of the dominant plants are OBL, FACW, or FAC, the vegetation is considered to be hydrophytic. Dominance of plants within the plots was determined using the "50/20" rule.

Hydric Soil

Indicators of hydric soil include, but are not limited to, a strong hydrogen sulfide (rotten egg) odor, redox concentrations, depleted matrix, and high organic matter content. Soil colors were determined by using a standard Munsell soil color chart.

Wetland Hydrology

Indicators of wetland hydrology include, but are not limited to, standing surface water, high water table, soil saturation, sediment deposits, soil cracks, and oxidized root channels along living roots.

3.3 Field Investigation

A field investigation of the project area was conducted in August of 2021. The northwest corner of the property was used as a base for measurements using a 300-foot-long tape and a field grade GPS was used to determine locations of wetland plots.

All potential wildlife habitats within the project area and within 1.3 mile around the project area were assessed for their potential for listed wildlife species. Certified Wildlife Biologist Frank Galea conducted the field review. The entire property was searched for potential wetlands. Trees were searched with high-power binoculars for nests. A botanical survey was also conducted during review.

4.0 RESULTS AND POTENTIAL IMPACTS

4.1 Records Search

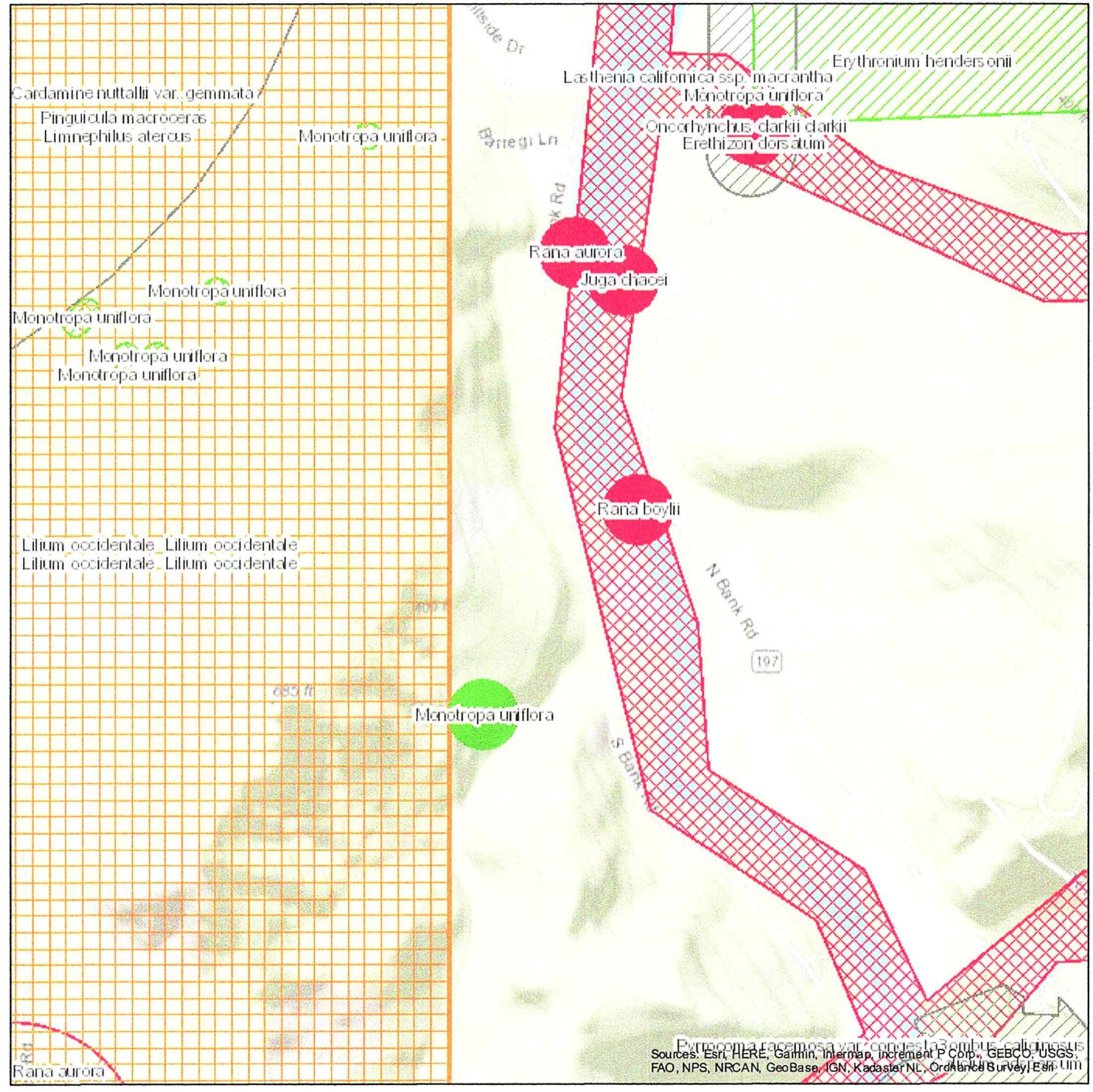
The CDF&W Natural Diversity Data Base (CNDDB, 2021) provided a summary of those federal and state-listed and sensitive wildlife species and their mapped locations (Figure 2), reported to have occurred at least once within two miles of the project site.

A list of those sensitive or listed animal species potentially occurring in the vicinity of the project area is presented in Table 1, including the common and scientific names for each. The listing status of each species and if potential habitat (as determined by GBC, based upon a review of habitat available within the project area) was located within or near the project area is also indicated in Table 1.

Map of Project Area

California Natural Diversity Database (CNDDB) Commercial [ds85]

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)



1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

N

September 10, 2021

Author: frankgalea@charter.net

Table 1. Sensitive Species Occurring or with Potential to Occur Within the Region of the Project Area
(From CNDDB 2021 Quad search, USFWS Del Norte County list, and GBC sources)

Common Name	Latin Name	Federal Status	State Status	Breeding Habitat in Project Area?	Forage Habitat in Project Area?
BIRDS					
Northern spotted owl	*Strix occidentalis caurina*	FT	CSC	No	No
AMPHIBIANS					
Northern red-legged frog	*Rana aurora aurora*	None	CSC	Yes	Yes
Foothill yellow-legged frog	*Rana boylii*	NL	CSC	Yes	Yes

Codes:

Federal Status
- FE Federally endangered
- FT Federally threatened
- FC Federal candidate for listing
- FSC Federal species of concern

State Status
- CE California endangered
- CT California threatened
- CCE California candidate for endangered listing
- CSC California species of concern (CDFW)

4.2 Field Investigation

The undeveloped property primarily contained low-density, mid-seral redwood (*Sequoia sempervirons*) and bigleaf maple (*Acer macrophyllum*) as an overstory and dense patches of Himalayan blackberry (*Rubus armeniacus*) as the primary ground cover.

The east side of the property was found to have been used as a dumping ground over the years. Piles of gravels, old cement waste, and piles of brush were located throughout. Additionally, evidence of bears raiding garbage bins was everywhere.

Historic logging had created low areas in some places where surface water could collect. These locations were found to inundated with slough sedge (*Carex obnupta*), a potential wetland indicator species.

4.3 Habitat Analysis and Impact Assessment for Fish and Wildlife

4.3a Sensitive Species: The following is an analysis of sensitive species potentially present and an assessment of their potential to be impacted by this project.

Table 1 lists the northern spotted owl as potentially occurring in the assessment area. No activity center for the northern spotted owl was recorded in the California Natural Diversity Database, however, it was included here due to potential habitat in the form of mid seral conifer stands in the general area, and because the project site is within the general range of the spotted owl.

GBC conducted three seasons of northern spotted owl surveys for this property in 2019, 2020 and 2021. No spotted owls were detected during surveys.

Table 1 also shows two amphibian species with records of occurrence in the immediate area. Table 1 lists the northern red-legged frog (*Rana aurora*) as potentially occurring in the area, and in fact two red-legged frogs were located together on the property during surveys.

The northern red legged frog was relatively common in wetlands, riparian areas and ponds in northern California. Loss of habitat and predation by non-native frogs has reduced or eliminated populations of a close relative, the California red-legged frog (*Rana draytonii*), in southern and central California.

In Del Norte County the northern red-legged frog this is a very common species in a wide range of habitats. This species breeds in moist areas, requiring standing water. It feeds on a variety of invertebrates, and can forage in wet fields, backyards, and in woodlots. It is designated as a Species of Special Concern by the California Department of Fish and Wildlife. Although this species is not a protected species in Del Norte County and is locally relatively abundant, population levels are not doing well in the remainder of its range.

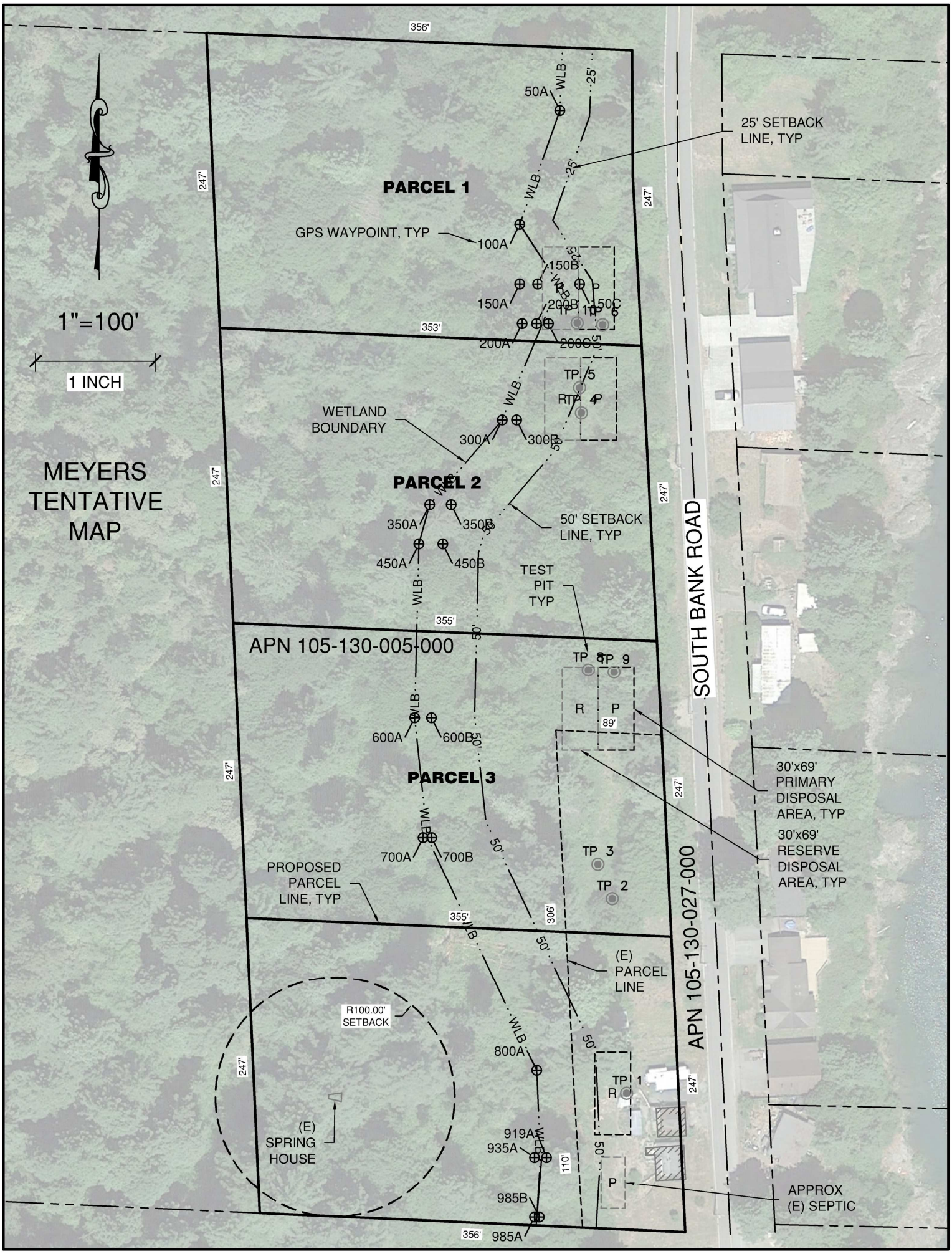
Northern red-legged frogs can utilize a variety of habitats for foraging and are never found far from standing water. As red-legged frogs were located on site, it is recommended that a qualified biologist survey for this species immediately before any logging or construction to move any amphibians which might be in harm's way.

Foothill yellow-legged frog - The foothill yellow-legged frog is a California Species of Special Concern. The Smith River along its edges provides suitable habitat for this species, however habitat for this species along the river is at least 160 feet away, across a road and developed properties. There is no preferred habitat for this species on this property.

4.3b Non-sensitive Wildlife

Black-tailed deer (*Odicoileus hemionus*), black bear (*Ursus americanus*) and other local species are known in the area. Roosevelt elk are known in the area, as the population has greatly increased in the past 20 years. These elk are not migratory as elk from inland areas are, but tend to remain within one area, as they do not have to move from deep snow in winter.

No heron or egret rookeries are known of nearby and none were observed during field surveys.


MEYERS
TENTATIVE
MAP
1"=100'
1 INCH
PARCEL 1
PARCEL 2
PARCEL 3
APN 105-130-005-000
APN 105-130-027-000
SOUTH BANK ROAD
25' SETBACK
LINE, TYP
GPS WAYPOINT, TYP
WETLAND
BOUNDARY
50' SETBACK
LINE, TYP
TEST
PIT
TYP
PROPOSED
PARCEL
LINE, TYP
(E)
PARCEL
LINE
R100.00'
SETBACK
(E)
SPRING
HOUSE
30'x69'
PRIMARY
DISPOSAL
AREA, TYP
30'x69'
RESERVE
DISPOSAL
AREA, TYP
APPROX
(E) SEPTIC
50A
100A
150A
150B
150C
200A
200B
200C
300A
300B
350A
350B
450A
450B
600A
600B
700A
700B
800A
919A
935A
985A
985B
TP 1
TP 2
TP 3
TP 4
TP 5
TP 6
TP 8
TP 9
WLB
25'
50'
247'
353'
355'
356'
306'
110'
89'

4.6 Potential Impacts from Project

The Applicant proposes to subdivide the property to create 4 new residential properties, one of which is already developed with a single-family home. Due to recommended wetland protection buffers, any new homes would have to be built relatively close to South Bank Road. Future development would likely entail the removal of several mid-seral redwood trees, however the entire hillside to the west is all redwood forest. With the recommended non-development buffers for wetland habitats, there would likely be no significant impacts to sensitive species, as sufficient habitat in the form of a wide wetland area would remain west of the new home parcels.

5.0 RECOMMENDATIONS

1. Non-development Buffers to wetlands should be 50 feet from the south end of the property up to point 200A, after which a buffer width of 25 feet from wetlands should be sufficient.

2. Best management practices (BMP's) should always be considered and used when operating near the drainage channel or associated wetlands. Sediment fences or other barriers to sediment movement should be employed during any construction activity within 50 feet of the drainage channel, or more if possible.

3. Due to the presence of red-legged frogs, it is recommended that a qualified biologist survey for this species immediately before any logging or construction to move any amphibians which might be in harm's way.

6.0 STAFF QUALIFICATIONS

Habitat assessment and report writing for this project was conducted by Principal Biologist, Frank Galea. Frank is the primary Biological Consultant and owner of Galea Biological Consulting, established in 1989. Frank is certified as a Wildlife Biologist through the Wildlife Society. Frank's qualifications include a Master of Science Degree in Wildlife Management from Humboldt State University and a Bachelor of Science in Zoology from San Diego State University. Frank has been assessing habitat and conducting field surveys for Threatened and Endangered species in Del Norte County for over 30 years. Frank has taken an accredited class on wetland delineation through the Wetland Training Institute, and has successfully completed a Watershed Assessment and Erosion Treatment course through the Salmonid Restoration Federation.

APPENDIX A

PLANT LIST FROM BOTANICAL SURVEY

SPECIES	LATIN NAME	WETLAND AFFINITY
Lady fern	*Athyrium filix-femina*	FAC
Wild cucumber	*Marah oreganus*	NL
Stinging nettle	*Urdica dioica*	FAC
Prickly sow-thistle	*Sonchus asper*	FACU
Trailing blackberry	*Rubus ursinus*	FACU
Youth on age	*Tolmiea menziesii*	FAC
Red elderberry	*Sambucus racemosa*	FACU
Bull thistle	*Cirsium vulgare*	FACU
Western red cedar	*Thuja plicata*	FAC
Himalayan blackberry	*Rubus armeniacus*	FACU
Orange honeysuckle	*Lonicera ciliosa*	NL
Creeping buttercup	*Ranunculus repens*	FAC
Sheep's sorrel	*Rumex acetosella*	FACU
Climbing nightshade	*Solanum dulcamara*	FAC
Slough sedge	*Carex abrupta*	"OBL"
Red alder	*Alnus rubra*	FAC
Thimbleberry	*Rubus parviflorus*	FACU
Salmonberry	*Rubus specatbilis*	FAC
Giant horsetail	*Equisetum telmateia*	FACW
Sword fern	*Polystichum munitum*	FACU
Cascara	*Rhamnus purshiana*	NL
Skunk cabbage	*Symplocarpus foetidus*	OBL

APPENDIX B

WETLAND DELINEATION FORMS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road **Applicant / Owner:** Myers **Investigator:** F. Galea	**Date:** 8/25/21 **County:** Del Norte **State:** CA
Do normal circumstances exist on the site? Yes X No ____ **Is the site significantly disturbed (Atypical situation)?** Yes ____ No X **Is the area a potential problem area?** Yes ____ No X **(explain on reverse if needed)**	**Community ID:** ____ **Transect ID:** ____ **Plot ID:** A 985

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Symplocarpus foetidus	H	OBL
2. Carex obnupta	H	OBL
3. Salix. sp	T	FACW
4.		
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100

Remarks:

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- X Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:
East Edge of wetland, ~ 57 feet across.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road **Applicant / Owner:** Myers **Investigator:** F. Galea	**Date:** 8/25/21 **County:** Del Norte **State:** CA
Do normal circumstances exist on the site? Yes X No ____ **Is the site significantly disturbed (Atypical situation)?** Yes ____ No X **Is the area a potential problem area?** Yes ____ No X **(explain on reverse if needed)**	**Community ID:** ____ **Transect ID:** ____ **Plot ID:** B 985

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Acer macrophyllum	T	FACU
2. Rubus armeniacus	H	FACU
3. Equisetum telmateia	H	FACW
4. Urdica dioica	H	FAC
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 50%

Remarks:

minimal plant cover was FACW or FAC.

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

none

SOILS – Myers, S. Bank

985 ~~NE~~ B

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
6-12	A		4/6 7.5YR	dry	crumbly soil
12	B	1/	2/5 Y	begin indication of hydric soil.	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

4 feet E of wetland edge, minimal indication as hydric.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	**Yes** ___	**No** X	**Is the Sampling Point**	
Wetland Hydrology Present?	**Yes** ___	**No** X	**Within a Wetland?**	**Yes** ~~X~~ **No** X
Hydric Soils Present?	**Yes** ___	**No** X		

Remarks:

NE B is 4 feet E. of NE A
(NE = corner of lot)

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 935A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Rhamnus purshiana	T	NL
2. Alnus rubra	T	FAC
3. Carex obnupta	H	OBL
4. Symplocarpus foetidus	H	OBL
5. Athyrium filix-femina	H	FAC
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 80%

Remarks:

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: 1 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

Standing water at wetland edge, wetland is ≈ 60' across

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 935 13

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Equisetum telmateia	H	FACW
2. Rubus armeniacus	H	FACU
3. orchard grass	H	NL
4. lawn grass	H	NL
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 25 %

Remarks:

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

none.

SOILS – Myers, S. Bank

935 B

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12	A	4/2 10YR		dry, crumbled soil	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X
Hydric Soils Present? Yes ___ No X

Is the Sampling Point Within a Wetland? Yes___ No X

Remarks:

935 B is 16 feet east of 935 A.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road **Applicant / Owner:** Myers **Investigator:** F. Galea	**Date:** 8/25/21 **County:** Del Norte **State:** CA
Do normal circumstances exist on the site? Yes X No ____ **Is the site significantly disturbed (Atypical situation)?** Yes ____ No X **Is the area a potential problem area?** Yes ____ No X **(explain on reverse if needed)**	**Community ID:** ____ **Transect ID:** ____ **Plot ID:** 800A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix sp.	T	FACW	9.		
2. Rubus spectabilis	H	FAC	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 100

Remarks:

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: 1 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

ill-defined channel. wetlands ≤ 25' feet wide.
- full of wood debris

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 800 (3

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Rubus spectabilis	B	FAC
2. Rubus parviflon's	B	FACU
3. Carex obnupta	H	OBL
4. Rubus ursinus	H	FACU
5. Hedera helix	H	FACU
6. Euphorbia lathyris	H	NL
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 30 %

Remarks:

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

None

SOILS – Myers, S. Bank

800B

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12	A	4/3 10YR		dry, crumbly soil	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X
Hydric Soils Present? Yes ___ No X

Is the Sampling Point Within a Wetland? Yes___ No X

Remarks:
800B is 1 foot higher elevation than 800A

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 600A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Symplocarpus foetidus	H	OBL
2. Athyrium filix-femina	H	FAC
3. Alnus rubra	T	FAC
4. Carex obnupta	H	OBL
5. Sambucus racemosa	S	FACU
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 80%

Remarks:

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: 2 (in.)

Depth to Free Water in Pit: ____ (in.)

Depth to Saturated Soil: ____ (in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

ill-defined channel. Wetlands are ~30' across here.
Standing water.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 600 B

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Alnus rubra	T	FAC
2. Rubus ursinus	H	FACU
3. Athyrium filix-femina	H	FAC
4. Tolmiea menziesii	H	FAC
5. Polystichum munitum	H	
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). ____

Remarks:

HYDROLOGY

___ **Recorded Data (Describe In Remarks):**
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: ____(in.)

Depth to Free Water in Pit: ____(in.)

Depth to Saturated Soil: ____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12"
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators:
- ___ Oxidized Roots Channels in Upper 12"
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

none

SOILS – Myers, S. Bank

600B

Map Unit Name (Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12	A		4/3	10 YR	dry, crumbly

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed On Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

600B is located 14 feet E. of 600A

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No ___
Wetland Hydrology Present? Yes ___ No ___
Hydric Soils Present? Yes ___ No ___

Is the Sampling Point Within a Wetland? Yes___ No___

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 450A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Symplocarpus foetidus	H	OBL
2. Carex obnupta	H	OBL
3. Rubus ursinus	H	FACU
4. Athyrium filix-femina	H	FAC
5. Rubus spectabilis	B	FAC
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 80 %

Remarks:
2 red-legged frogs found here.

HYDROLOGY

___ **Recorded Data (Describe In Remarks):**
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: 2 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators

Primary Indicators:
- λ Inundated
- ___ Saturated in Upper 12"
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators:
- ___ Oxidized Roots Channels in Upper 12"
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:
Channel 2 feet wide

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 450 B

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Polystichum munitum	H	FACU
2. Urtica dioica	H	FAC
3. Sambucus racemosa	S	FACU
4. Rubus ursinus	H	FACU
5. Rubus parviflorus	S	FACU
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). ≥ 0

Remarks:

not wetland

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

none

SOILS – Myers, S. Bank

450B

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
15	A	4/3 7.5 YR		loose, dry,	crumbly soil

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

non-hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X
Hydric Soils Present? Yes ___ No X

Is the Sampling Point Within a Wetland? Yes___ No X

Remarks:

450 B is 26' E of 450 A

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 350A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Symphocarpus foetidus	H	OBL
2. Athyrium felix-fem	H	FAC
3. Sambucus racemosa	S	FACU
4. Carex obnupta	H	OBL
5. Tolmiea menziesii	H	FAC
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 80%

Remarks: Spruce overstory. At edge of channel. Wetlands ≈ 30' wide, to west. Channel is 30" wide.

HYDROLOGY

___ **Recorded Data (Describe In Remarks):**
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ___ Inundated
- X Saturated in Upper 12"
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators:
- ___ Oxidized Roots Channels in Upper 12"
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Plot next to channel.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 350B

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Polystichum munitum	H	FACU
2. Athyrium filix-femina	H	FAC
3. Rubus parviflorus	B	FACU
4. Carex obnupta	H	OBL
5. Sequoia semp.	T	NL
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 40%

Remarks:
Vegetation not hydric

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:
none

SOILS – Myers, S. Bank

350A

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12	A	5/3 7.5YR		dry, crumbles	

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed On Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:
not hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X
Hydric Soils Present? Yes ___ No X

Is the Sampling Point Within a Wetland? Yes___ No X

Remarks:
1 foot higher elevation than 350A. 18' E. of 350A

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 200A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Athyrium filix-femina	H	FAC
2. Marah oreganus	H	NL
3. Urdica dioica	H	FAC
4. Alnus rubra	T	FAC
5. Rhamnos purshiana	T	NL
6. Equisetum telmateia	H	FACW
7. Rubus ursinus	H	FACU
8. Tolmiea menziesii	H	FAC

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 60%

Remarks:
Hydric vegetation

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- X Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- Y Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:
cracked, open ground, open drainage channel 12 feet to west.

Wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road **Applicant / Owner:** Myers **Investigator:** F. Galea	**Date:** 8/25/21 **County:** Del Norte **State:** CA
Do normal circumstances exist on the site? Yes X No ____ **Is the site significantly disturbed (Atypical situation)?** Yes ____ No X **Is the area a potential problem area?** Yes ____ No X **(explain on reverse if needed)**	**Community ID:** ____ **Transect ID:** ____ **Plot ID:** 200C

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Athyrium filix-femina	H	FAC
2. Rubus ursinus	H	FACU
3. Urtica dioica	H	FAC
4. Cirsium vulgare	H	FACU
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 50 %

Remarks:

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

none

SOILS – Myers, S. Bank

200 C

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12	A		4/2 7.5 YR		dry, crumbly soil

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

non-hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X
Hydric Soils Present? Yes ___ No X

Is the Sampling Point Within a Wetland? Yes___ No X

Remarks:

200 C is 22 feet east of 200 A.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 50A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Alnus rubra	T	FAC
2. Sambucus racemosa	B	FACU
3. Carex obnupta	H	OBL
4. Urtica dioica	H	FAC
5. Rubus parviflorus	B	FACU
6. Rubus ursinus	H	FACU
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 50 %

Remarks:
30' circular patch of slough sedge, low spot

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:
none visible, very brushy

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 100A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Athyrium filix-femina	H	FAC
2. Rubus ursinus	H	FACU
3. Ranunculus repens	H	FAC
4. Urdica dioica	H	FAC
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 75%

Remarks:
Plants indicate wetlands

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 150 A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Rhamnus purshiana	T	NL
2. Sequoia sempervirens	T	NL
3. Alnus rubra	T	FAC
4. Athyrium filix-femina	H	FAC
5. Rubus armeniacus	H	FACU
6. Lonicera ciliosa	H	NL
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 30 %

Remarks:

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- X Drift Lines
- ____ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

Open, moist, cracked ground. Seasonal flooding

SOILS – Myers, S. Bank

150 A

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12		1/4 5GY		Gley	soils to west

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
_X_ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes X No ~~X~~
Hydric Soils Present? Yes X No ~~X~~

Is the Sampling Point Within a Wetland? Yes X No___

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 150 C

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Athyrium filix-femina	H	FAC
2. Marah oreganus	H	NL
3. Sonchus asper	H	FACU
4. Urdica dioica	H	FAC
5. Rubus armeniacus	H	FACU
6. Ranunculus repens	H	FAC
7. Rumex acetosella	H	FACU
8. Solanum dulcamara	H	FAC
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 30 %

Remarks:

Vegetation not indicative.

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

none

SOILS – Myers, S. Bank

150C

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes** ___ **No** ___

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12		4/3 10YR		barely moist,	crumbles,

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed On Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	**Yes** ___	**No** X	**Is the Sampling Point**	
Wetland Hydrology Present?	**Yes** ___	**No** X	**Within a Wetland?**	**Yes** X **No** X
Hydric Soils Present?	**Yes** ___	**No** X		

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 300 13

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Alnus rubra	T	FAC
2. Athyrium filix-femina	H	FAC
3. Urtica dioica	H	FAC
4. Rubus ursinus	H	FACU
5. Marah oreganus	H	NL
6. Tolmiea menziesii	H	FAC
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 66%

Remarks:
12 feet east of defined channel.

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:
none

SOILS – Myers, S. Bank

300B

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12		5/4 7.5YR		dry, crumbly	soil

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

soil not indicative of wetlands

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X
Hydric Soils Present? Yes ___ No X

Is the Sampling Point Within a Wetland? Yes ~~X~~ No X

Remarks:

Although vegetation somewhat indicative, no hydrology and soils not indicative

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 200A

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Athyrium filix-femina	H	FAC
2. Urtica dioica	H	FAC
3. Marah oreganus	H	NL
4. Rhamnus purshiana	T	NL
5. Alnus rubra	T	FAC
6. Equisetum telmateia	H	FACW
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 66 %

Remarks:
Next to wet channel

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: 1 (in.)

Depth to Free Water in Pit: ____ (in.)

Depth to Saturated Soil: ____ (in.)

Wetland Hydrology Indicators

Primary Indicators:
- X Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:
Water in channel

SOILS – Myers, S. Bank

200 A

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes___ No___

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12		2.5/1 7.5YR			

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: Soil not indicative

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X
Hydric Soils Present? Yes ___ No X

Is the Sampling Point Within a Wetland? Yes X No___

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 2001 3

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Rhamnus purshiana	T	NL
2. Athyrium filix-fem	H	FAC
3. Urdica dioica	H	FAC
4. Morah oreganus	H	NL
5. Sambucus racemosa	B	FACU
6. Rubus ursinus	H	FACU
7. Equisetum telmateia	H	FACW
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 40%

Remarks:
Plot right onedge of wetland

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- X Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

SOILS – Myers, S. Bank

200B

Map Unit Name
(Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes** ___ **No** ___

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12		6/3 7.5YR		crumbly, loose soil, dry	

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed On Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

soil not hydric, on edge

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	**Yes** ___	**No** X	**Is the Sampling Point**	
Wetland Hydrology Present?	**Yes** ___	**No** X	**Within a Wetland?**	**Yes** X **No** X
Hydric Soils Present?	**Yes** ___	**No** X		

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: Myers, S. Bank Road
Applicant / Owner: Myers
Investigator: F. Galea

Date: 8/25/21
County: Del Norte
State: CA

Do normal circumstances exist on the site? Yes X No ____
Is the site significantly disturbed (Atypical situation)? Yes ____ No X
Is the area a potential problem area? Yes ____ No X
(explain on reverse if needed)

Community ID: ____
Transect ID: ____
Plot ID: 200C

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Athyrium felix-femina	H	FAC
2. Rubus ursinus	H	FACU
3. Sonchus asper	H	FACW
4. Equisetum telmateia	H	FACW
5. Urtica dioica	H	FAC
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 40

Remarks:
Overstory w. red cedar

HYDROLOGY

____ **Recorded Data (Describe In Remarks):**
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

____ **No Recorded Data Available**

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12"
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators:
- ____ Oxidized Roots Channels in Upper 12"
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:
none

SOILS – Myers, S. Bank

200C

Map Unit Name (Series and Phase): _____ **Drainage Class:** _____

Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes___ No___**

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
12		4/2 7.5YR		dry, crumbly	

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed On Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No X
Wetland Hydrology Present? Yes ___ No X
Hydric Soils Present? Yes ___ No X

Is the Sampling Point Within a Wetland? Yes ~~X~~ No X

Remarks:

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

August 19, 2021

Heidi Kunstal, Director
Del Norte County Community Development Department
981 H Street, Suite 110
Crescent City, CA. 95531
hkunstal@co.del-norte.ca.us

SUBJECT: Dr. Joseph Meyers Minor Subdivision - MS2103 (SCH# 2021070426)

Dear Heidi Kunstal:

On July 22, 2021, the California Department of Fish and Wildlife (CDFW) received Del Norte County's (Lead Agency) Negative Declaration (ND) for the Meyers Minor Subdivision (Project) via the State Clearing House. CDFW understands the Lead Agency will accept comments on the Project through August 23, 2021.

As the Trustee for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and the habitat necessary to sustain their populations. As a Responsible Agency, CDFW administers the California Endangered Species Act and other provisions of the Fish and Game Code (FGC) that conserve the State's fish and wildlife public trust resources. CDFW offers the following comments and recommendations in our role as Trustee and Responsible Agency pursuant to the California Environmental Quality Act (CEQA; California Public Resource Code §21000 et seq.). CDFW participates in the regulatory process in its roles as Trustee and Responsible Agency to minimize Project impacts and avoid potential significant environmental impacts by recommending avoidance and minimization measures. These comments are intended to reduce the Projects impacts on public trust resources.

Project Description

The Project is located at 6012 South Bank Road, Crescent City, CA, on Assessor Parcel Numbers (APN) 105-130-005 and 105-130-027. As described in the ND, the Project proposes a minor subdivision of APN 105-130-005 into three parcels, approximately 2-acres each in size, and an additional parcel boundary adjustment for APN 105-130-027. Previously, the applicant received Lead Agency approval to adjust the eastern 12 acres of APN 105-130-005 to the adjoining timberland property owner. Future development of the three new parcels will be served by on-site wastewater treatment systems and individual wells.

CDFW Consultation History

After receiving the Project referral via the State Clearinghouse, CDFW contacted the Lead Agency on August 02, 2021, requesting a site visit. On August 05, 2021, CDFW Environmental Scientist Greg O'Connell visited the Project site.

CDFW Comments on the ND:

Revise and Recirculate CEQA Document

The ND circulated by the County for this Project does not contain an evaluation of all of the potentially significant environmental impacts from the Project. One of the main purposes of CEQA is to disclose to the public and resource agencies the potential significant environmental effects of a Project. CDFW, the Planning Commission, other decision makers, and the public, cannot assess the adequacy of biological surveys or potentially significant environmental impacts if a CEQA document does not contain necessary biological surveys completed prior to public circulation or if the results are not included in the public document. Additionally, the feasibility and adequacy of proposed mitigations cannot be sufficiently evaluated in a CEQA document unless all potentially significant environmental impacts have been assessed.

Consequently, a new CEQA document, such as a Mitigated Negative Declaration, should be recirculated after revisions to analyze all potentially significant environmental impacts within the entire Project area (CEQA Guidelines §15073.5) (**Recommendation 1**). The results of complete wetland delineations, botanical surveys, and assessments of sensitive wildlife habitats should be included in the revised CEQA document. These complete surveys should then be used as the basis for creating avoidance (i.e., setbacks or buffers) and feasible mitigation measures for potentially significant impacts.

Wetlands

Approximately 90 percent of California's historical wetlands have been filled or converted to other uses, with a consequent reduction in the functions and values wetlands provide (CDFW 2014). As such, Federal and State wetland no-net-loss-policies were established in 1988 and 1993, respectively.

The ND states no wetlands were observed within 100-ft of the project site and a search of the U.S Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) did not result in wetlands located on the subject parcel. However, on August 05, 2021, CDFW staff observed a mosaic of Palustrine Forested Wetlands and Palustrine Scrub-Shrub Wetlands (Federal Geographic Data Committee [FGDC] 2013) with perennial and seasonally intermittent wetland hydrology in the western portions of the proposed parcels. These locations contained varying degrees of coast redwood (*Sequoia sempervirens*) overstory; a shrub layer containing salmonberry (*Rubus spectabilis*),

California blackberry (Rubus ursinus); and an herbaceous layer including obligate wetland plant species, such as slough sedge (*Carex obnupta*), water parsley (*Oenanthe sarmentosa*), American brooklime (*Veronica americana*), and skunk cabbage (*Lysichiton americanus*), in addition to saturated soils and areas of standing water.

Although NWI may be useful for broad, landscape-scale characterization of some aquatic habitats, NWI wetland maps do not attempt to define the jurisdictional limits of any Federal, State, or local government, or to establish the geographical scope of the regulatory programs of government agencies (USFWS 2021). NWI maps are based on vegetation, visible hydrology, and geography from analysis of high-altitude aerial imagery. Given the wide margin of error inherent in NWI's use of aerial imagery to map aquatic habitat at fine scales, NWI maps are not sufficient for the purpose of project planning, permitting, or regulatory requirements.

A formal wetland delineation should have been conducted in the planning phase of this project and incorporated into the CEQA document, and protective buffers should have been prescribed in order to conserve wetland resources and their habitat value. To identify the locations of development setbacks from wetlands, the Project should provide a wetland delineation, prepared by a qualified wetland scientist, that satisfies the requirements of the 1987 Army Corps of Engineers Wetland Delineation Manual (ACOE 1987) and the associated Western Mountains, Valleys, and Coast Regional Supplement (ACOE 2012) (**Recommendation 2**). CDFW recommends 100-ft development setbacks from perennial wetlands and 50-ft setbacks from seasonal wetlands (**Recommendation 3**).

Botanical Survey

The ND relies on biological reports from the project vicinity but does not contain results of botanical surveys for the project parcels. It is unknown if special status plant species or Sensitive Natural Communities (SNCs) occur in the project area. CDFW has established *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018). Potential suitable habitat exists within the project area for Henderson's fawn lily (*Erythronium hendersonii*, California Rare Plant Rank [CRPR] 2B.3), ghost-pipe (*Monotropa uniflora*, CRPR 2B.2), western white bog violet (*Viola primulifolia* ssp. *occidentalis*; CRPR 1B.2), Howell's sandwort (*Sabulina howellii*, CRPR 1B.3), and other special status plant species. SNC's such as red alder forest, slough sedge swards, coastal brambles, salmonberry-wax myrtle scrub, and others may also be present within wetlands or uplands and should receive consideration in the CEQA document, see Appendix G Biological Resources (IV) subsection b.

CDFW recommends a botanical survey occur in accordance with the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and*

Sensitive Natural Communities (**Recommendation 4**). Potentially significant impacts should be avoided and minimized to the greatest extent feasible. Please consult with CDFW staff regarding mitigation plans if impacts cannot be avoided.

Water Sources

The ND states the three new parcels will be served by individual wells. During the site visit, CDFW staff observed an existing surface water diversion from a perennial spring with wetland habitat, located at approximately 41.8524, -124.1246. Pursuant to Fish and Game Code (FGC) §1602, any existing or proposed surface water diversion(s) shall submit a Lake and Streambed Alteration Notification to CDFW (**Recommendation 5**). More information and instruction for submitting a Notification can be found at https://wildlife.ca.gov/Conservation/Environmental-Review/LSA. Additionally, the Lead Agency should ensure that proposed wells are sited at sufficient distance from aquatic habitats and with adequate depths and screening intervals (or other design features based on site-specific geology, etc.) to avoid dewatering of wetland habitat (**Recommendation 6**).

Nesting Birds

Take of birds and their nests is prohibited by FGC §§2000, 3503, 3503.5. CDFW recommends that vegetation removal associated with Project development occur outside the bird nesting season (generally March 15 – August 15 for most species) (**Recommendation 7**). If vegetation removal or other project-related activities that could impact nesting birds are scheduled during the nesting season, a qualified biologist should survey for active bird nests within seven days prior to the beginning of project-related activities. Surveys should begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. A report of the surveys should be submitted to CDFW by email within three business days of completion. The report should include a description of the area surveyed, time and date of surveys, ambient conditions, species observed, active nests observed, evidence of breeding behaviors (e.g., courtship, carrying nesting material or food, etc.), and a description of any outstanding conditions that may have impacted survey results (e.g., weather conditions, excess noise, predators present, etc.). If an active nest is found, Permittee should implement avoidance measures in consultation with CDFW. If a lapse in project-related work of seven days or longer occurs, the qualified biologist should repeat surveys before project work can resume.

Retention of Large Trees

The parcels proposed for development contain several large trees such as California bay (*Umbellularia californica*) and coast redwood. Larger trees often provide complex habitat structure that is utilized by wildlife species such as fisher (*Pekania pennanti*; a

Species of Special Concern [SSC]), Townsend's big-eared bat (*Corynorhinus townsendii*; SSC), and other species. CDFW recommends retention of trees (particularly ones with hollows or cavities) greater than 36-inches in diameter (**Recommendation 8**).

Wildlife Conflict Avoidance

California is home to the most natural diversity of any state and our human population here is expected to grow to 50 million by 2050. Most human-wildlife interactions do not escalate to conflict, but measures can be taken to avoid the potential for conflict. On August 05, 2021, CDFW staff observed several locations where it appears black bears (*Ursus americanus*) or other animals have dragged trash bags into the forest from an existing residence on the Project parcels. Bears acclimated to human contact and food can become "problem bears," which can become dangerous to humans and are often destroyed.

CDFW recommends a condition of approval that household trash and other potential wildlife attractants are adequately contained and disposed of (**Recommendation 9**). More information and suggestions on this topic can be found at CDFW's Human-Wildlife Conflicts Program (https://wildlife.ca.gov/Conservation/Laboratories/Wildlife-Health/HWC-Program) and Keep Me Wild (https://wildlife.ca.gov/Keep-Me-Wild) websites.

Summary of Recommendations

1. A new CEQA document should be recirculated after revisions are included based on site specific data and findings that analyze all potentially significant environmental impacts based on the whole of the Project.
2. The CEQA document should provide a wetland delineation prepared by a qualified wetland scientist that satisfies the requirements of the 1987 Army Corps of Engineers Wetland Delineation Manual and the associated Western Mountains, Valleys, and Coast Regional Supplement.
3. Perennial wetlands should receive 100-ft development setbacks and seasonal wetlands 50-ft setbacks.
4. The CEQA document should provide botanical survey results in accordance with the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*. The project should consult with CDFW prior to recirculation of the CEQA document if impacts cannot be avoided.
5. Existing or proposed surface water diversion(s) shall submit a Lake and Streambed Alteration Notification to CDFW.
6. The Lead Agency should ensure proposed wells are sited and constructed to avoid dewatering of wetland habitat.
7. Vegetation removal associated with Project development should occur outside the bird nesting season (generally March 15 – August 15 for most species).

8. The project should retain trees greater than 36-inches in diameter, particularly trees with hollows or cavities.
9. Household trash other potential wildlife attractants should be adequately contained and disposed of.

We appreciate the opportunity to comment on this ND. If you have any questions or concerns, please contact Environmental Scientist Greg O'Connell by email at gregory.oconnell@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Joe Croteau
E7BB5E1AD9C54C3...

Tina Bartlett
Regional Manager, Northern Region
California Department of Fish and Wildlife

ec:

State Clearinghouse, Office of Planning and Research
state.clearinghouse@opr.ca.gov

L. Kasey Sirkin
U.S. Army Corps of Engineers
l.k.sirkin@usace.army.mil

Brandon Stevens
North Coast Regional Water Board
brandon.stevens@waterboards.ca.gov

Rebecca Garwood, Michael van Hattem, Dana Mason, Greg O'Connell.
California Department of Fish and Wildlife
rebecca.garwood@wildlife.ca.gov; michael.vanhattem@wildlife.ca.gov; dana.mason@wildlife.ca.gov; gregory.oconnell@wildlife.ca.gov; CEQAcommentletters@wildlife.ca.gov

Citations

ACOE. (1987). Corps of Engineers Wetlands Delineation Manual. Environmental Laboratory. Vicksburg, MS. Accessed August 13, 2021, at https://www.lrh.usace.army.mil/Portals/38/docs/USACE%2087%20Wetland%20Delineation%20Manual.pdf.

ACOE. (2012). Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). Engineer Research and Development Center. Vicksburg, MS. Accessed August 13, 2021, at https://usace.contentdm.oclc.org/utils/getfile/collection/p266001coll1/id/7646.

CDFW. (2014). Development, land use, and climate change impacts on wetland and riparian habitats—A summary of scientifically supported conservation strategies, mitigation measures, and best management practices. Technical Memorandum. California Department of Fish and Wildlife, Northern Region. Redding, CA. Accessed August 13, 2021, at http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=163508.

CDFW. (2018). Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. California Department of Fish and Wildlife, Habitat Conservation Branch. Sacramento, CA. Accessed August 13, 2021, at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959.

FGDC. (2013). Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC. Accessed August 13, 2021, at https://www.fws.gov/wetlands/documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States-2013.pdf.

USFWS. (2021). National Wetland Inventory, Data Limitations. Bailey's Crossroads, VA. Accessed August 13, 2021, at https://www.fws.gov/wetlands/index.html.