August 24, 2020

Department of Transportation
Environmental Health - Ukiah
Building Inspection - Ukiah
Assessor
Air Quality Management
California Native Plant Society
Caltrans
CalFire – Prevention
CalFire – Resource Management
California Highway Patrol
Department of Fish and Wildlife
Division of Mines & Geology
RWQCB
US Fish & Wildlife Service
Army Corps of Engineers
NOAA Fisheries
US Natural Resources Conservation
Cloverdale Rancheria
Redwood Valley Rancheria
Sherwood Valley Band of Pomo Indians

CASE#: U_2020-0007/REC_2020-0001
DATE FILED: 6/2/2020
OWNER: 51110 COVELO LLC
APPLICANT: WOODY HECKEROOTH
AGENT: COMPASS LAND GROUP
REQUEST: Major Use Permit and Reclamation Plan for seasonal gravel extraction and reclamation activities on an instream gravel bar, known as the Stewart Bar, located on the Middle Fork of the Eel River. The project will involve the excavation of sand and gravel with a total annual extraction limit of 20,000 cubic yards. The project activities will occur during the summer low-flow season between June 1 and October 30 with an anticipated total of 45 days per year of operation.
LOCATION: 1.57± miles southeast of Dos Rios community center, lying on the south side of Hwy. 162 (SH 162, AKA Covel Rd.), 1.1± miles east of its intersection with Laytonville-Dos Rios Rd. (CR 322), located 1.4± miles east of the confluence of the Middle Fork and the Mainstem of the Eel River, at 51111, 51110, and 50751 Covel Road, Dos Rios (APNs 035-030-17, -49, -65) AKA Stewart Bar
ENVIRONMENTAL DETERMINATION: Negative Declaration
SUPERVISORIAL DISTRICT: 3
STAFF PLANNER: DIRK LARSON
RESPONSE DUE DATE: September 7, 2020

PROJECT INFORMATION CAN BE FOUND AT: https://www.mendocinocounty.org/government/planning-building-services/public-agency-referrals

Mendocino County Planning & Building Services is soliciting your input, which will be used in staff analysis and forwarded to the appropriate public hearing. You are invited to comment on any aspect of the proposed project(s). Please convey any requirements or conditions your agency requires for project compliance to the project coordinator at the above address, or submit your comments by email to pbs@mendocinocounty.org. Please note the case number and name of the project coordinator with all correspondence to this department.

We have reviewed the above application and recommend the following (please check one):

☐ No comment at this time.
☐ Recommend conditional approval (attached).
☐ Applicant to submit additional information (attach items needed, or contact the applicant directly, copying Planning and Building Services in any correspondence you may have with the applicant)
☐ Recommend denial (Attach reasons for recommending denial).
☐ Recommend preparation of an Environmental Impact Report (attach reasons why an EIR should be required).
☐ Other comments (attach as necessary).

__________________________
REVIEWED BY:

Signature __________________ Department __________________ Date ____________
CASE: U_2020-0007/REC_2020-0001

OWNER: 51110 COVELO LLC

APPLICANT: WOODY HECKEROTH

AGENT: COMPASS LAND GROUP (Jordan Main)

REQUEST: Major Use Permit and Reclamation Plan for seasonal gravel extraction and reclamation activities on an instream gravel bar, known as the Stewart Bar, located on the Middle Fork of the Eel River. The project will involve the excavation of sand and gravel with a total annual extraction limit of 20,000 cubic yards. The project activities will occur during the summer low-flow season between June 1 and October 30 with an anticipated total of 45 days per year of operation.

LOCATION: 1.57± miles southeast of Dos Rios community center, lying on the south side of Hwy. 162 (SH 162, AKA Covelo Rd.), 1.1± miles east of its intersection with Laytonville-Dos Rios Rd. (CR 322), located 1.4± miles east of the confluence of the Middle Fork and the Mainstem of the Eel River, at 51111, 51110, and 50751 Covelo Road, Dos Rios (APNs 035-030-17, -49, -65) AKA Stewart Bar

GPS Coordinates: Lat. 39°42’21″N Long. -123°19’34″W

APN/S: 035-030-17, -49, & -65

PARCEL SIZE: 26.84± acres

GENERAL PLAN: Remote Residential (RMR:40)

ZONING: Upland Residential (UR:40); Flood Plain Combining District – Zone A (FP)

EXISTING USES: Residential, Mining

DISTRICT: 3rd Supervisorial District (Haschak)

RELATED CASES:
- Use Permit # 38-88: implementation of an instream gravel mining operation of up to 30,000 cubic yards per year for a period of ten (10) years.
- Use Permit # 38-88/94: Renewal of reclamation plan for the extraction of up to 30,000 cubic yards for a period of ten (10) years from the Eel River gravel bar.
- Use Permit # 16-84: Approved by the Planning Commission on June 7, 1984 allowing for the extraction of up to 25,000 cubic yards of gravel per year for two years.
- Use Permit # 12-92: In vicinity of project site and located approximately one-half mile west (downstream) of Stewart Bar, approved by Board of Supervisors on December 14, 1992 for the removal of 30,000 cubic yards of gravel per year for five years.
- Use Permit # 23-92: In vicinity of project site and located approximately 1½ miles downstream, at the confluence of the Middle Fork Eel River and the main stem of the Eel River, allowing for the removal of 50,000 cubic yards of gravel per year and expired on August 14, 1994.
- Use Permit #71-77/89: In vicinity of project site and located at the confluence of the Main Eel River and Middle Fork Eel River, allowing for the removal of 50,000 cubic yards of gravel per year and expires August 14, 1994.

ADJACENT GENERAL PLAN

<table>
<thead>
<tr>
<th>NORTH</th>
<th>EAST</th>
<th>SOUTH</th>
<th>WEST</th>
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<tbody>
<tr>
<td>RMR40</td>
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ADJACENT ZONING

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<th>NORTH</th>
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ADJACENT LOT SIZES

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<tr>
<td>36.65±A/93±A</td>
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ADJACENT USES

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<tr>
<td>Residential/Rangeland</td>
<td>Residential/Rangeland</td>
<td>Residential/Rangeland</td>
<td>Residential/Rangeland</td>
</tr>
</tbody>
</table>

REFERENCE AGENCIES

LOCAL
- Air Quality Management District
- Assessor’s Office
- Building Division-Ukiah
- Department of Transportation (DOT)
- Environmental Health (Land Use)

STATE
- CALFIRE (Land Use)
- CALFIRE (Resource Management)
- California Div. of Mine Reclamation
- California Dept. of Fish & Wildlife
- California Native Plant Society
- California Highway Patrol
- CALTRANS
- Regional Water Quality Control Board
- US Army Corp of Engineers
- US Natural Resources Conservation

TRIBAL
- Cloverdale Rancheria
- Redwood Valley Rancheria
- Sherwood Valley Band of Pomo Indians

ADDITIONAL INFORMATION:

STAFF PLANNER: DIRK LARSON
DATE: 8/24/2020
<table>
<thead>
<tr>
<th>ENVIRONMENTAL DATA</th>
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<tbody>
<tr>
<td><strong>1. MAC:</strong></td>
</tr>
<tr>
<td>GIS</td>
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<tr>
<td>NO</td>
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<tr>
<td><strong>2. FIRE HAZARD SEVERITY ZONE:</strong></td>
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<tr>
<td>CALFIRE FRAP maps/GIS</td>
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<tr>
<td>High</td>
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<td><strong>3. FIRE RESPONSIBILITY AREA:</strong></td>
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<td>CALFIRE FRAP maps/GIS</td>
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<tr>
<td>State</td>
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<td><strong>4. FARMLAND CLASSIFICATION:</strong></td>
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<tr>
<td>GIS</td>
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<tr>
<td>Grazing, Non-Ag &amp; Natural Vegetation Land</td>
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<td><strong>5. FLOOD ZONE CLASSIFICATION:</strong></td>
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<tr>
<td>FEMA Flood Insurance Rate Maps (FIRM)</td>
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<tr>
<td>YES(A)</td>
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<td><strong>6. COASTAL GROUNDWATER RESOURCE AREA:</strong></td>
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<tr>
<td>Coastal Groundwater Study/GIS</td>
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<td><strong>7. SOIL CLASSIFICATION:</strong></td>
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<tr>
<td>Mendocino County Soils Study, Eastern/Western Part</td>
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<td>218, 226, 230, 235 with Naturally Occurring Asbestos</td>
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<tr>
<td>NO</td>
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<tr>
<td><strong>8. PYGMY VEGETATION OR PYGMY CAPABLE SOIL:</strong></td>
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<td>GIS, LCP, Pygmy Soils Maps, GIS</td>
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<td><strong>9. WILLIAMSON ACT CONTRACT:</strong></td>
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<td>GIS</td>
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<td><strong>10. TIMBER PRODUCTION ZONE:</strong></td>
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<td>GIS</td>
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<td><strong>11. WETLANDS CLASSIFICATION:</strong></td>
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<td>GIS, Riverrine</td>
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<td><strong>12. EARTHQUAKE FAULT ZONE: NO</strong></td>
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<td>Earthquake Fault Zone Maps, GIS</td>
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<td><strong>13. AIRPORT LAND USE PLANNING AREA:</strong></td>
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<td>Airport Land Use Plan, GIS</td>
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<td><strong>14. SUPERFUND/BROWNFIELD/HAZMAT SITE:</strong></td>
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<td>GIS</td>
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<td><strong>15. NATURAL DIVERSITY DATABASE:</strong></td>
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<td>CA Dept. of Fish &amp; Wildlife Rarefind Database/GIS</td>
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<td><strong>16. STATE FOREST/PARK/RECREATION AREA ADJACENT:</strong></td>
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<td><strong>17. LANDSLIDE HAZARD:</strong></td>
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<tr>
<td>Hazards &amp; Landslides Map, Sec. Policy RM-61, General Plan 4-44</td>
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<td><strong>18. WATER EFFICIENT LANDSCAPE REQUIRED:</strong></td>
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<td>Policy RM-7, General Plan 4-44</td>
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<td>TBD after referral process</td>
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<td><strong>19. WILD AND SCENIC RIVER:</strong></td>
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<td>Eel River</td>
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<td><strong>20. SPECIFIC PLAN/SPECIAL PLAN AREA:</strong></td>
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<td>Various Adopted Specific Plan Areas, GIS</td>
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<td><strong>21. STATE CLEARINGHOUSE REQUIRED:</strong></td>
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<tr>
<td>Policy</td>
</tr>
<tr>
<td>NO</td>
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<tr>
<td><strong>22. OAK WOODLAND AREA:</strong></td>
</tr>
<tr>
<td>USDA</td>
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<tr>
<td><strong>23. HARBOR DISTRICT:</strong></td>
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<tr>
<td>Sec. 20.512</td>
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</table>
CASE: REC 2020-0001
OWNER: 51110 Cvelo, LLC
APN: 035-030-49
APLCT: Wylatti Resource Management
AGENT: Jordan Main
ADDRESS: 51110 Cvelo Road, Dos Rios

SUBJECT PARCEL/S

Major Towns & Places
Major Roads
Major Rivers
Highways

LOCATION MAP
APPLICATION FORM

APPLICANT
Name: Wylatti Resource Management Phone: (707) 983-8135

Mailing Address: 23601 Cemetery Ln
City: Covelo State/Zip: CA / 95428 email: wylatti@willitsonline.com

PROPERTY OWNER Woody Heckeroth
Name: _____________________ Phone: _____________________

Mailing Address: 51110 Covelo Road
City: Dos Rios State/Zip: CA / 95429

AGENT Compass Land Group (Jordan Main)
Name: _____________________ Phone: 408-210-5929

Mailing Address: 3140 Peacekeeper Way, Suite 102
City: McClellan State/Zip: CA / 95652 email: jmain@compassland.net

Parcel Size: See below (Sq. feet/Acres) Address of Property: Middle Fork Eel River - Southeast of Dos Rios

Assessor Parcel Number(s): 035-030-49 (12.5 ac.), 035-030-65 (12.46 ac.), 035-030-17 (1.88 ac.)

TYPE OF APPLICATION:
- [ ] Administrative Permit
- [ ] Agricultural Preserve
- [ ] Airport Land Use
- [ ] CDP- Admin
- [ ] CDP- Standard
- [ ] Certificate of Compliance
- [ ] Development Review
- [ ] Exception
- [ ] Flood Hazard
- [ ] General Plan Amendment
- [ ] Land Division- Minor
- [ ] Land Division- Major
- [ ] Land Division-Parcel
- [ ] Land Division-Resubdivision
- [ ] Modification of Conditions
- [ ] Reversion to Acreage
- [ ] Rezoning
- [ ] Use Permit-Cottage
- [ ] Use Permit-Minor
- [ ] Use Permit-Major
- [ ] Variance
- [ ] Other
- [ ] Reclamation Plan

I certify that the information submitted with this application is true and accurate.

Signature of Applicant/Agent Date
Signature of Owner Date
APPLICATION FORM

APPLICANT
Name: Wylatti Resource Management Phone: (707) 983-8135
Mailing Address: 23601 Cemetery Ln
City: Covelo State/Zip: CA / 95428 email: wylatti@willisontne.com

PROPERTY OWNER
Name: Nira Stewart Phone:
Mailing Address: 51111 Covelo Road
City: Dos Rios State/Zip: CA / 95429

AGENT
Name: Compass Land Group (Jordan Main) Phone: 408-210-5929
Mailing Address: 3140 Peacekeeper Way, Suite 102
City: McClellan State/Zip: CA / 95652 email: jmain@compassland.net

Parcel Size: See below (Sq. feet/Acres) Address of Property: Middle Fork Eel River - Southeast of Dos Rios
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- [ ] Rezoning
- [ ] Use Permit-Cottage
- [ ] Use Permit-Minor
- [ ] Use Permit-Major
- [ ] Variance
- [ ] Other

Reclamation Plan

I certify that the information submitted with this application is true and accurate.

Signature of Applicant/Agent Date: 11-14-2022
Signature of Owner Date: 11-10-2020
The purpose of this questionnaire is to relate information concerning your application to the Department of Planning and Building Services and other agencies who will be reviewing your project proposal. Please remember that the clearer picture that you give us of your project and the site, the easier it will be to promptly process your application. Please answer all questions. Those questions which do not pertain to your project please indicate “Not applicable” or “N/A”.

THE PROJECT

1. Describe your project. Include secondary improvements such as wells, septic systems, grading, vegetation removal, roads, etc.

Seasonal gravel extraction and reclamation activities on an instream gravel bar known as the Stewart Bar located on the Middle Fork Eel River in Mendocino County, California. The Stewart Bar is located approximately 7 miles southwest of Covelo and approximately one mile southeast of the unincorporated community of Dos Rios. The Stewart Bar falls within Section 5, Township 21N, Range 13W; latitude 39.705345, longitude -123.328395.

Project activities will involve the excavation of sand and gravel using conventional construction equipment (e.g., dozer, excavator, water truck) and loading of the material into haul trucks for transport to an existing processing facility located off Hwy. 162 near Longvale. Only extraction, loading, and haul out to occur at the Stewart Bar, with no processing onsite. A total annual extraction limit of 20,000 cubic yards of sand and gravel is proposed. Project activities will be timed during the summer low-flow season (June 1 through October 30), with an anticipated total of 45 operating days per year. Hours of operation will be 7:00 a.m. to 5:00 p.m., Monday through Friday during the seasonal extraction period.

Annual gravel extraction activities (including extraction design) are subject to review and oversight by the U.S. Army Corps of Engineers, National Marine Fisheries Service, California Department of Fish & Wildlife, and Mendocino County Planning Department.

See Reclamation Plan for additional detail.

2. Structures/Lot Coverage

<table>
<thead>
<tr>
<th>Number of Units</th>
<th>Square Footage</th>
</tr>
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<tbody>
<tr>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>Single Family</td>
<td></td>
</tr>
<tr>
<td>Mobile Home</td>
<td></td>
</tr>
<tr>
<td>Duplex</td>
<td></td>
</tr>
<tr>
<td>Multifamily</td>
<td></td>
</tr>
<tr>
<td>Other: Area to be reclaimed</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

Total Structures Paved
Area Landscaped Area
Unimproved Area

GRAND TOTAL (Equal to gross area of Parcel) +/- 3.4 acres (reclamation boundary)
3. If the project is commercial, industrial or institutional, complete the following:

   Estimated employees per shift: 3
   Estimated shifts per day: 1
   Type of loading facilities proposed: Excavator loading haul trucks

4. Will the proposed project be phased?  Yes  No  If yes, explain your plans for phasing:

   The project is subject to recruitment of sand and gravel during high winter flows. Seasonal extraction of sand and gravel will occur during the summer low-flow season (June 1 through October 30). Following extraction, reclamation of the gravel bar will occur on an annual basis, and will include recontouring and final grooming of the bar in accordance with regulatory agency requirements.

5. Will vegetation be removed on areas other than the building sites and roads?  Yes  No  Explain:

   An existing access road off of Hwy. 162 leads to the gravel bar which will be utilized for access. Vegetation within the approved extraction area on the gravel bar itself will be removed as a component of the sand and gravel extraction process. No removal of vegetation will occur outside of the extraction area.

6. Will the project involve the use or disposal of potentially hazardous materials such as toxic substances, flammables, or explosives?  Yes  No  If yes, explain:

   Common fuels and lubricants are contained within the construction equipment. No fueling or maintenance of the equipment will occur within the channel.

7. How much off-street parking will be provided?

   Number of covered spaces  N/A
   Number of uncovered spaces  ____________________________
   Number of standard spaces  ____________________________
   Number of handicapped spaces  ____________________________

   Existing Number of Spaces  ____________________________
   Proposed Additional Spaces  ____________________________
   Total  ____________________________

8. Is any road construction or grading planned?  Yes  No  If yes, grading and drainage plans may be required. Also, describe the terrain to be traversed (e.g., steep, moderate slope, flat, etc.).

   Other than minor maintenance of the existing access road to ensure safe access, no road construction is anticipated. Extraction of sand and gravel from the exposed gravel bar will be performed using conventional construction equipment in accordance with annual extraction plans prepared by a licensed professional and approved by the oversight agencies (USACE, NMFS, CDFW, NCRWQCB, Mendocino County).

9. For grading or road construction, complete the following:

   A. Amount of cut 20,000 (maximum)  cubic yards
   B. Amount of fill N/A  cubic yards
   C. Maximum height of fill slope N/A  feet
   D. Maximum height of cut slope N/A  feet
   E. Amount of import or export 20,000 (export)  cubic yards
   F. Location of borrow or disposal site  Processing to occur at existing Longvale site.
10. Does the project involve sand removal, mining or gravel extraction? □ Yes  □ No
If yes, detailed extraction, reclamation and monitoring plans may be required?

11. Will the proposed development convert land currently or previously used for agriculture to another use? □ Yes  □ No
If yes, how many acres will be converted? ______ acres. An agricultural economic feasibility study may be required.

12. Will the development provide public or private recreational opportunities? □ Yes  □ No
If yes, explain below:

13. Is the proposed development visible from State Highway 1 or other scenic route? □ Yes  □ No
14. Is the proposed development visible from a park, beach or other recreational area? □ Yes  □ No

15. Does the development involve diking, filling, dredging or placing structures in open coastal water, wetlands, estuaries or lakes?
   Diking : □ Yes  □ No
   Filling: □ Yes  □ No
   Dredging: □ Yes  □ No
   Placement of structures in:
   - open coastal waters
   - wetlands
   - estuaries
   - lakes

   If so, amount of material to be dredged or filled? ______ cubic yards.
   Location of dredged material disposal site? Processing to occur at existing Longvale site

   Has a U.S. Army Corps of Engineers permit been applied for? □ Yes  □ No
   Application will be made upon issuance of CUP

16. Will there be any exterior lighting? □ Yes  □ No
   If yes, describe below and identify the location of all exterior lighting on the plot plan and building plans.

17. Utilities will be supplied to the site as follows:
   A. Electricity:
      - Utility Company (service exists to the parcel)
      - Utility Company (requires extension of service to site: ______ feet ______ miles)
      - On Site Generation - Specify: N/A
   B. Gas:
      - Utility Company/Tank
      - On Site Generation - Specify: N/A
      - None
   C. Telephone: □ Yes  □ No

18. What will be the method of sewage disposal?
   □ Community sewage system - Specify supplier _______________________________
   □ Septic Tank
   □ Other - Specify: Portable toilet located outside of river channel

19. What will be the domestic water source:
   □ Community water system - Specify supplier _______________________________
   □ Well
   □ Spring
   □ Other - Specify: Bottled water for employees
20. Are there any associated projects and/or adjacent properties under your ownership?  
☐ Yes  ☐ No  
If yes, explain (e.g., Assessor’s Parcel Number, address, etc.):  

 Processing will occur at an existing permitted processing facility (Longvale - APN 036-190-26; 37342 Covelo Road, Willits) owned by the applicant.

21. List and describe any other related permits and other public approval required for this project, including those required by other County departments, city, regional, state and federal agencies:  

 Army Corps of Engineers 404 permit, CA Department of Fish & Wildlife Streambed Alteration Agreement, and Regional Water Quality Control Board Section 401 Certification

22. Describe the location of the site in terms of readily identifiable landmarks (e.g., mailboxes, mile posts, street intersections, etc.):  

 In-stream gravel bar located in Middle Fork Eel River ~7 miles southwest of Covelo and ~1 mile southeast of the unincorporated community Dos Rios.  

 The gravel bar falls within Section 5, Township 21N, Range 13W; latitude 39.705345, longitude -123.328395.

23. Are there existing structures on the property?  
☐ Yes  ☐ No  
If yes, describe below, and identify the use of each structure on the plot plan or tentative map if the proposal is for a subdivision.  

 There is a residential home and several associated outbuildings located at a higher elevation just north of the gravel bar. These structures will be unaffected by the project.

24. Will any existing structures be demolished or removed?  
☐ Yes  ☐ No  
If yes, describe the type of development to be demolished or removed, including the relocation site, if applicable.

25. Project Height. Maximum height of existing structures N/A feet. Maximum height of proposed structures N/A feet.

26. Gross floor area of existing structures N/A square feet (including covered parking and accessory buildings). Gross floor area of proposed structures N/A square feet (including covered parking and accessory buildings).

27. Lot area (within property lines):  
☐ square feet  ☐ acres.

28. Briefly describe the project site as it exists before the project, including information on existing structures and their uses, slopes, soil stability, plants and animals, and any cultural, historical or scenic aspects. Attach any photographs of the site that you feel would be helpful.  

 The gravel bar is located within the Middle Fork Eel River and has an existing access road leading from Hwy. 162.  

 There is a residential home and several associated outbuildings located at a higher elevation just north of the gravel bar.  

 See Biological Resource Assessment (Gallaway Enterprises, June 2019)

29. Briefly describe the surrounding properties, including information on plants, animals and any cultural, historic or scenic aspects. Indicate the type of land use (use chart below) and its general intensity. Attach any photographs of the vicinity that you feel would be helpful.  

 Immediately south of the gravel bar is the Middle Fork Eel River, and beyond that is the Mendocino National Forest.  

 See Biological Resource Assessment (Gallaway Enterprises, June 2019)

30. Indicate the surrounding land uses:  

<table>
<thead>
<tr>
<th>North</th>
<th>East</th>
<th>South</th>
<th>West</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacant</td>
<td>East, South, West - Middle Fork Eel River, Mendocino National Forest, Vacant</td>
<td></td>
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</tr>
<tr>
<td>Residential Agricultural</td>
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<tr>
<td>Commercial Industrial</td>
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<tr>
<td>Institutional Timberland</td>
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<td>Other</td>
<td>North - Hwy. 162, Scattered rural residential</td>
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CERTIFICATION AND SITE VIEW AUTHORIZATION- SUBMIT ONLY ONE COPY

1. I hereby certify that I have read this completed application and that, to the best of my knowledge, the information in this application, and all attached appendices and exhibits, is complete and correct. I understand that the failure to provide any requested information or any misstatements submitted in support of the application shall be grounds for either refusing to accept this application, for denying the permit, for suspending or revoking a permit issued on the basis of such misrepresentations, or for seeking of such further relief as may seem proper to the County.

2. I hereby grant permission for County Planning and Building Services staff and hearing bodies to enter upon and site view the premises for which this application is made in order to obtain information necessary for the preparation of required reports and render its decision.

__________________________________________________________________________
Owner/Authorized Agent

NOTE: IF SIGNED BY AGENT, OWNER MUST SIGN BELOW.

AUTHORIZATION OF AGENT

I hereby authorize __________________________________________ to act as my representative and to bind me in all matters concerning this application.

__________________________________________
Owner

Date

MAIL DIRECTION

To facilitate proper handling of this application, please indicate the names and mailing addresses of individuals to whom you wish correspondence and/or staff reports mailed if different from those identified on Page 1 of the application form.

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INDEMNIFICATION AND HOLD HARMLESS

ORDINANCE NO. 3780, adopted by the Board of Supervisors on June 4, 1991, requires applicants for discretionary land use approvals, to sign the following Indemnification Agreement. Failure to sign this agreement will result in the application being considered incomplete and withheld from further processing.

INDEMNIFICATION AGREEMENT

As part of this application, applicant agrees to defend, indemnify, release and hold harmless the County of Mendocino, its agents, officers, attorneys, employees, boards and commissions, as more particularly set forth in Mendocino County Code Section 1.04.120, from any claim, action or proceeding brought against any of the foregoing individuals or entities, the purpose of which is to attack, set aside, void or annul the approval of this application or adoption of the environmental document which accompanies it. The indemnification shall include, but not be limited to, damages, costs, expenses, attorney fees or expert witness fees that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, whether or not there is concurrent, passive or active negligence on the part of the County, its agents, officers, attorneys, employees, boards and commissions.

Applicant: ____________________________

Date: 4/8/20
CERTIFICATION AND SITE VIEW AUTHORIZATION- SUBMIT ONLY ONE COPY

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Owner/Authorized Agent ___________________________ Date 4-12-2003

NOTE: IF SIGNED BY AGENT, OWNER MUST SIGN BELOW.

AUTHORIZED OF AGENT

I hereby authorize ___________________________ to act as my representative and to bind me in all matters concerning this application.

_________________________ Owner ___________________________ Date

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Applicant: ___________________________ Date: 4-14-2003
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Appendix B Owner’s Acknowledgement and Authorization
Appendix C Caltrans Consultation E-Mail
Appendix D Geotechnical Memorandum
Appendix E GHG Analysis
Appendix F Noise Assessment
Appendix G Biological Resources Assessment
Appendix H Statement of Reclamation Responsibility
Appendix I Financial Assurance Cost Estimate
Appendix J Conditions of Approval
# RECLAMATION PLAN SUMMARY

**Mine Name:** Stewart Gravel Bar  
**California Mine ID Number:** TBD  
**Mine Operator:** Wylatti Resource Management, Inc.  
**Mine Location:** Middle Fork Eel River  
Mendocino County, CA  
Latitude 39.705° and Longitude -123.328°

**Site Contact:** Mel Goodwin, Plant Supervisor  
**Contact Phone:** 707.489.6966

**Property Owner(s):**  
APN 035-030-17, 65: Nira Stewart  
APN 035-030-49: Woody Heckeroth

**Address:**  
Stewart: 51111 Covelo Rd, Dos Rios, CA 95429  
Heckeroth: 51110 Covelo Rd, Dos Rios, CA 95429

**Assessor Parcel(s):** 035-030-49 (12.5 ac.), 035-030-17 (1.9 ac.), 035-030-65 (12.5 ac.)

**Total Parcel Size(s):** 26.9± acres

**Area to be Reclaimed:** 3.4± acres

**Type of Material to be Mined:** Sand and gravel

**Quantity of Material to be Mined:** 20,000 cubic yards/year (replenishment based); 400,000 cubic yards total based on a 20-year permit

**Maximum Anticipated Depth:** 20 feet

**Proposed Initiation Date:** August 2020

**Proposed Termination Date:** October 2040 based on a 20-year permit request

**Potential End Use(s):** Riverine (gravel bar)
### CHART OF SMARA CONTENTS [PRC §2770.5]

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<th>SMARA Section</th>
<th>Location in Plan (e.g., Page #s)</th>
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<td>2772(b) Chart of contents</td>
<td>v (this chart)</td>
<td>☐ YES ☐ NO ☐ N/A</td>
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<td>2772(c)(1) Operator and agent contact info</td>
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<td>☐ YES ☐ NO ☐ N/A</td>
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<td>2772(c)(3) Initiation and termination dates</td>
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<td>2772(c)(4) Maximum anticipated depth</td>
<td>4, Sheets</td>
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<td>2772(c)(9) Effect on future mining in area</td>
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<td>2773(a) Site specific reclamation plan</td>
<td>26, plus entirety of Plan</td>
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<td>2773.3 Requirements for metallic mines</td>
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| SMARA Regulations, Article 1, Surface Mining and Reclamation Practice (Title 14, California CCR §3500 et seq.) |  | ☐ YES ☐ NO ☐ N/A |
| 3502(a) Reclamation objectives | 2 | ☐ YES ☐ NO ☐ N/A |
| 3502(b)(1) Environmental setting | 8-13, Appendices for detail | ☐ YES ☐ NO ☐ N/A |
| 3502(b)(2) Public health and safety | 7 | ☐ YES ☐ NO ☐ N/A |
| 3502(b)(3) Final slopes | 14 | ☐ YES ☐ NO ☐ N/A |
| 3502(b)(4) Borrow and settlement of fills | 14-15 | ☐ YES ☐ NO ☐ N/A |
| 3502(b)(5) Disposition of old equipment | 22 | ☐ YES ☐ NO ☐ N/A |
| 3502(b)(6) Stream and watershed diversions | 17-18 | ☐ YES ☐ NO ☐ N/A |
| 3503(a) Soil erosion control | 15-17 | ☐ YES ☐ NO ☐ N/A |
| 3503(b) Water quality / watershed control | 15-17 | ☐ YES ☐ NO ☐ N/A |
| 3503(c) Protection of fish / wildlife habitat | 19 | ☐ YES ☐ NO ☐ N/A |
| 3503(d) Disposal of waste / overburden | 16-17 | ☐ YES ☐ NO ☐ N/A |
| 3503(e) Erosion and drainage | 16 | ☐ YES ☐ NO ☐ N/A |
| 3503(f) Resoilng | 19-20 | ☐ YES ☐ NO ☐ N/A |
| 3503(g) Revegetation | 20-21 | ☐ YES ☐ NO ☐ N/A |

| SMARA Regulations, Article 9, Reclamation Standards (Title 14, California CCR §3700 et seq.) |  | ☐ YES ☐ NO ☐ N/A |
| 3703 Wildlife and habitat protection | 19 | ☐ YES ☐ NO ☐ N/A |
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| 3704.1 ...for metallic mines | N/A | ☐ YES ☐ NO ☐ N/A |
| 3705 Revegetation | 20-21 | ☐ YES ☐ NO ☐ N/A |
| 3706 Water quality, drainage, runoff | 15-17 | ☐ YES ☐ NO ☐ N/A |
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| 3712 Mine waste disposal | 16-17 | ☐ YES ☐ NO ☐ N/A |
| 3713 Drill holes and water wells | 22 | ☐ YES ☐ NO ☐ N/A |
1.0 INTRODUCTION

This Reclamation Plan ("Plan") has been prepared in support of seasonal gravel extraction and
and reclamation activities on an instream gravel bar known as the Stewart Gravel Bar in
Mendocino County, California. The Stewart Gravel Bar is located within the Middle Fork Eel River,
approximately 7 miles southwest of Covelo and approximately one mile southeast of the
unincorporated community of Dos Rios (see Figure 1, Vicinity Map). Project activities will involve
the excavation of sand and gravel using conventional construction equipment (e.g., dozer,
excavator, water truck) and loading of the material into haul trucks for transport to an existing
processing facility located off Hwy. 162 near Longvale. Only extraction, loading, and haul-out will
occur at the Stewart Gravel Bar, with no processing onsite. Total annual extraction volumes will
be replenishment based, with a maximum proposed annual extraction quantity of 20,000 cubic
yards. Project activities will occur during the summer low-flow season (June 15 through October
15) to avoid potential impacts to anadromous fish. Post-extraction reclamation activities will
include removal of any remaining temporary gravel stockpiles, finished grading of the gravel bar
to fill in low areas and depressions, recontouring of the gravel bar to meet agency-approved post-
extraction slopes and gravel bar configuration, removal of temporary culverts (if necessary),
installation of storm water control measures, and removal of all work materials and debris. The
seasonal gravel extraction and reclamation activities are subject to review and oversight by the
U.S. Army Corps of Engineers ("USACE"), National Marine Fisheries Service ("NMFS"), California
Department of Fish & Wildlife ("CDFW"), North Coast Regional Water Quality Control Board
("NCRWQCB"), and Mendocino County Planning Department.

1.1 Plan Organization

Section 2.0 of this Plan provides an overview of reclamation activities and is generally organized
around SMARA requirements, beginning with SMARA’s key statutory requirements. Section 3.0
of this Plan addresses specific Mendocino County (lead agency) requirements, where those
requirements supplement or amplify the requirements covered in Section 2.0.

This Plan has been prepared pursuant to the following requirements associated with the
reclamation of mined lands:

- California Surface Mining and Reclamation Act of 1975, as amended (Public Resource
  Code §2710 et seq.);
- State Mining and Geology Board SMARA implementing regulations (California Code of
  Regulations, Title 14, §3500 et seq.); and
- Mendocino County Code, Chapter 22.16, Surface Mining and Reclamation ("MCSMO").

Many statutory and regulatory sections of SMARA are either presented verbatim or paraphrased
throughout to facilitate a better understanding of Plan contents and requirements. Requirements found in Article 1 (14 CCR §3500 et seq.) and Article 9 (14 CCR §3700 et seq.) of
SMARA’s implementing regulations are addressed under combined resource headings where
possible, to minimize duplication of Plan contents. SMARA citations and standards that follow section headings in italics have been abbreviated.

1.2 Purpose for Reclamation Plan [CCR §3502(a)]

Consistent with the Surface Mining and Reclamation Act ("SMARA") Public Resources Code ("PRC") §2712, this Plan has been developed to assure that:

(a) Adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition which is readily adaptable for alternative land uses.

(b) The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment.

(c) Residual hazards to the public health and safety are eliminated.

While the purpose of this Plan is to describe reclamation activities, surface mining activities are also described and referenced throughout for contextual purposes.

This Plan addresses reclamation pursuant to SMARA and its implementing regulations. Consistent with PRC §2773(a), this Plan is specific to the property and based upon the character of the site and surrounding areas. Site-specific performance standards are included for evaluating compliance with this Plan.

This Plan has specifically been developed to accomplish the following objectives:

1. **Responsibly extract available sand and gravel resources** to supply a much-needed local source of construction materials, while giving consideration to values relating to recreation, watershed, and wildlife protection. This is consistent with the State Legislature’s finding that the production and development of local mineral resources is vital (PRC §2711(d)).

2. **Allow for an additional source of in-stream sand and gravel on the Middle Fork Eel River** to promote reach-wide planning and coordination between approved extraction sites.

3. **Seasonally reclaim** extraction areas to leave the gravel bar in a condition that promotes replenishment and minimizes impacts to fish and wildlife resources.
2.0 SURFACE MINING AND RECLAMATION ACT REQUIREMENTS

2.1 Description of Mining Operations

2.1.1 Name and Address of Operator and Agent [PRC §2772(c)(1)]

Operator (and Lessee):

Wylatti Resource Management
23601 Cemetery Ln.
Covelo, CA 95428

Contact: Mel Goodwin, Plant Supervisor
Telephone: 707.489.6966
Email: melgoodwin@comcast.net

Designated Agent:

Compass Land Group
3140 Peacekeeper Way, Suite 102
McClellan, CA 95652

Contact: Jordan Main, Managing Partner
Telephone: 408.210.5929
Email: jmain@compassland.net

2.1.2 Quantity and Type of Mineral to be Mined [PRC §2772(c)(2)]

The quantity of sand and gravel extracted will be replenishment based. A maximum annual extraction quantity of 20,000 cubic yards is proposed. Although the project is proposed on an ongoing, continuous basis, consistent with prior County practice, a 20-year permit term is being requested. Assuming maximum extraction quantities are achieved in each year, a total of 400,000 cubic yards of sand and gravel will be mined over the permit life.

2.1.3 Initiation and Termination Dates [PRC §2772(c)(3)]

Mining activities will commence upon approval of County entitlements and associated regulatory authorizations (e.g., ACOE 404 permit, CDFW 1600 Agreement, RWQCB 401 Certification). It is estimated that these approvals will be obtained in-time to allow mining to initiate in August 2020. Although the project is proposed on an ongoing, continuous basis, consistent with prior County practice, a 20-year permit term is being requested. Assuming a 20-year permit is obtained, the estimated termination date for the surface mining operation is October 2040.
2.1.4 Maximum Anticipated Depth of Mining [PRC §2772(c)(4)]

The annual extraction design (including mining depth) will be dictated by replenishment of the gravel bar during high winter flows. It is anticipated that the maximum mining depth will be approximately 20 feet, depending on seasonal gravel accumulation on the bar.

2.1.5 Reclamation Plan Map Requirements [PRC §2772(c)(5)]

Size, Legal Description, and Owners of Surface and Mineral Interests [PRC §2772(c)(5)(A)]

The Plan boundary encompasses ±3.4 acres, comprised of portions of three Assessor’s Parcel Numbers (APNs) (035-030-17, 035-030-65, and 035-030-49) with two different landowners. Surface and mineral interests for APNs 035-030-17 and 035-030-65 are owned by Nira Stewart (51111 Covelo Road, Dos Rios, CA 95429), while surface and mineral interests for APN 035-030-49 are owned by Woody Heckeroth (51110 Covelo Road, Dos Rios, CA 95429). Ownership information and the overall Plan footprint acreage is shown on Sheet C-1, Reclamation Plan. Additional information relating to the legal descriptions for the Plan boundary are found in Appendix A, Site Legal Description.

Property Lines, Setbacks, and Reclamation Plan Boundary [PRC §2772(c)(5)(B)]

Property lines, applicable setbacks and the Plan boundary are shown on Sheets C-1, Reclamation Plan and C-2, Reclamation Profile and Sections.

Existing and Final Topography [PRC §2772(c)(5)(C)]

Annual extraction operations at the Stewart Gravel Bar will be replenishment/recruitment based. As such, the existing and final topography for seasonal extraction activities will be determined on an annual basis based on survey results and consultation with the regulatory agencies. A general description of the annual extraction design process is described below:

Each spring after elevated winter flows have subsided, monitoring cross-sections of the low-flow channel and gravel bar would be surveyed to evaluate the aggregate extraction potential of the bar, based on deposition of transported sediments. The previously established cross-sections are monumented by permanent, paired benchmarks at their endpoints on both sides of the Middle Fork Eel River's channel. The channel geometry within the wetted channel, including the thalweg, would also be surveyed within each monitoring cross-section. For each monitoring cross-section, the spring profiles will be superimposed with the previous year's post-extraction (fall) profiles. This comparison determines the locations and quantities of gravel recruitment as a result of the previous winter's high-flow sediment transport events, as well as any changes to the bar's morphology and channel configuration. The cross-section profile comparison provides the basis for estimating the amount of gravel available for extraction and the delineation of proposed extraction configuration. Cross-sections will be spaced closely enough to accurately determine the amount of gravel recruitment, as well as to monitor the thalweg elevation of the low-flow channel. Cross-sections will be plotted on an accurate plan of the site with the cross-section
reference points and locations of the ground-based photographs clearly identified. These data (the superimposed cross-sections on the plan, with photos locations and cross-section reference points) are submitted to ACOE, NMFS, CDFW, NCRWQCB, and Mendocino County Planning Department for agency approval prior to commencing with the planned gravel extraction for the season.

For contextual and informative purposes, existing topography of the gravel bar and a conceptual extraction plan (with finished topography) are shown on Sheets C-1 and C-2.

Geologic Description [PRC §2772(c)(5)(D)]

See Figure 5, Site Geology Map.

Railroads, Utilities, Access, and Roads [PRC §2772(c)(5)(E)]

The Stewart Gravel Bar will be accessed by an existing unpaved road approximately 0.2 miles in length that connects via an existing encroachment to Highway 162 located north of the site (see Sheet C-1, Reclamation Plan and Figure 2, Existing Conditions Site Map). No known utility facilities or railroads are located in the vicinity of the project site.

Preparation by Licensed Professionals as Required [PRC §2772(c)(5)(F)]

Plan Sheets C-1 and C-2 have been prepared by Pope Engineering, a California-licensed civil engineering and land surveying firm.

2.1.6 Mining Description and Time Schedule [PRC §2772(c)(6)]

Mining Description

The operator employs an iterative, adaptive management approach to extraction of the gravel bars, working in close coordination with NMFS and CDFW.

Mining will occur only on the dry gravel bar surface during the summer low-flow season (June 15 to October 15), and will not take place within the wetted channel. A maximum of 20,000 cubic yards of material will be removed annually, with actual quantities determined on an annual basis based on channel morphology and gravel replenishment, and subject to review and approval by CDFW and NMFS.

Gravel extraction at the site will be consistent with the NMFS/CDFW approved skimming methodology which involves removal of gravel from selected areas of the bar in a sloped configuration which avoids creating holes or channels, and is done by using excavators, loaders, and haul trucks. Extraction will be limited to the aggraded portion of the bars, utilizing horizontal and vertical offsets for buffers from the low-flow channel.

The extraction area maintains an undisturbed head of bar buffer that begins at the upstream end of the bar and extends downstream for a distance equaling approximately 30-35 percent of the
total length of the exposed bar to protect bar stability. A lateral buffer is maintained between
the outer edge of the bar and the low-flow channel providing a vertical offset from the water’s
edge and a horizontal offset of at least 10 feet in width from the water’s edge for equipment
wheels or tracks (CDFW does provide allowances for the Operator to extend equipment buckets
into the buffer to flatten berms and fill in holes, providing a smooth transition to the river which
will not trap fish).. The remaining interior portion of the bar is skimmed down to a longitudinal
slope approximating the gradient of the adjacent low-flow channel from the downstream end of
the bar ascending to the head buffer. This approach to mining of the bar is used to avoid any
potential adverse impacts to rare, threatened or endangered aquatic species, including salmonid
species known to occur at various times of year in the Eel River system. See Sheets C-1 – C-2 for
a conceptual extraction plan (with finished topography and cross-sections).

Mining of sand and gravel will be performed using conventional construction equipment (e.g.,
dozer, excavator, water truck). No processing of materials will occur on site. Extracted materials
will be hauled using conventional haul trucks to an established aggregate processing plant on SR
162, where storage and processing will be conducted. No overburden occurs on the active gravel
bar and none accumulates with this method of extraction. Mining activities are seasonally limited
between June 15 and October 15 each year, and are dependent on sufficient accumulation of
materials moving through the river system during large annual flow events.

**Seasonal Mining and Reclamation Schedule**

A summary of typical dates associated with seasonal gravel extraction and reclamation activities
is provided below:

**March thru May:** Annual pre-extraction cross-sectional surveys and spring aerial
photographs are taken. Timing of aerial photographs is dependent upon long-range
weather forecast and river stage.

**May 31 or soon thereafter:** A mutually agreeable field review of proposed extraction sites
is scheduled with NFMS, CDFW, and other gravel extraction review agencies. A draft Pre-
extraction Plan is submitted to the gravel review agencies for review and comment.
Subsequently, a final Pre-extraction Plan is submitted for review and written approval.

**June 15 thru October 15:** Annual gravel extraction period unless a time extension is
approved in writing by CDFW.

**June 30:** Approved temporary wet stream channel crossings (if necessary) may be
constructed. **Note:** based on current bar configuration, it is not anticipated that a
seasonal crossing will be necessary to access the proposed extraction area; however, in
the event that the channel morphology changes in future years, a temporary crossing may
be necessary. The location and design of such a crossing will be subject to review and
approval by the gravel extraction review agencies.
August thru October: Annual post-extraction aerial photograph series tied to the fall low flow period taken. When practicable, fall photographs are taken to closely coincide with the completion of extraction activities.

October 15: All temporary wet stream channel crossings are removed unless a time extension is granted by CDFW.

October 1 thru 15: Seasonal reclamation activities commence. All temporarily stockpiled material is removed from bars daily and extraction sites are smoothed to reclaimed condition at the end of each work day.

October 15: All gravel extraction activities are completed and extraction areas reclaimed, unless extraction activities are continuing under an approved extension.

2.1.7 Public Health and Safety (Exposure) [CCR §3502(b)(2)]

Implementation of this Plan is not anticipated to jeopardize public health and safety during mining or reclamation activities. The seasonal extraction and reclamation activities will occur within a very limited work window each year (summer low flow season). The mining activities will occur only on the dry gravel bar surface, and will not take place within the wetted channel. Mining and reclamation activities will be performed in accordance with all applicable Mine Safety and Health Administration (MSHA) and Occupational Safety and Health Administration (OSHA) safety requirements.

2.2 End Land Use

2.2.1 Proposed or Potential End Uses [PRC §2772(c)(7)]

The proposed end use of the in-stream gravel bar is riverine (gravel bar) consistent with pre-mining conditions. In addition, the existing access road is proposed to remain following reclamation for future access to the river.

The owner’s acknowledgment of the proposed end use is evidenced by the execution of the Owner’s Acknowledgement and Authorization (see Appendix B, Owner’s Acknowledgement and Authorization).

2.2.2 Reclamation Measures Adequate for the End Use [PRC §2772(c)(8)]

Post-extraction reclamation activities will include:

1. Removal of any remaining temporary gravel stockpiles;
2. Finished grading of the gravel bar to fill in low areas and depressions;
3. Recontouring of the gravel bar to meet agency-approved post-extraction slopes and gravel bar configuration;
4. Removal of temporary culverts (if necessary);
5. Installation of storm water control measures; and
6. Removal of all work materials and debris.

Finished grading of the gravel bar following extraction is performed using a small dozer. The extraction surface is reclaimed to a smoothly graded condition such that no depressions or lumps greater than one-half foot higher or lower than the planned grading plane remain. This process generally takes less than a day, and will be conducted during the hours aggregate extraction would occur (7 a.m. to 5 p.m., Monday through Saturday).

If a temporary wet crossing (culvert) is utilized, an excavator and two laborers remove the temporary culvert to provide an unobstructed channel for winter flows. The culvert area is backfilled with clean sandy gravel from the gravel bar, so a clean channel is left after the culvert is removed. There will be no sediment which could enter the watercourse from this area.

Seasonal maintenance of the access road is performed following the extraction season to assure no adverse impacts to water quality. The access road is regraded and Best Management Practices (“BMPs”) including water-bars and straw-mulching are used to stabilize the road surface. Storm water runoff is diverted at each water-bar to sheet flow down the slope below the access road in a manner which does not create erosion or sediment transport.

Finally, all equipment and debris will be removed from the project area at the end of each extraction season.

2.2.3 Impact of Reclamation on Future Mining in the Area [PRC §2772(c)(9)]

Given that the Stewart Gravel Bar is naturally replenishing, implementation of this Plan will not preclude future mining in the area, subject to first obtaining necessary approvals to do so.

2.3 Environmental Setting [CCR §3502(b)(1)]

2.3.1 Site Location

The Stewart Gravel Bar is located within the Middle Fork Eel River, approximately 7 miles southwest of Covelo and approximately one mile southeast of the unincorporated community of Dos Rios (see Figure 1, Vicinity Map). The site is located within Section 5, Township 21N, Range 13W; latitude 39.705345, longitude -123.328395.

2.3.2 Assessor Parcels, and Zoning and Designations

The project site’s current assessor parcel numbers, acreage, ownership, zoning and General Plan land use designations are as follows (also, see Figure 3, Zoning and Land Use Map):
### Table 1
ASSESSOR PARCELS, ACREAGE, OWNERSHIP, AND ZONING DESIGNATIONS

<table>
<thead>
<tr>
<th>Current APN</th>
<th>Acreage</th>
<th>Ownership</th>
<th>Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>035-030-49</td>
<td>12.5 ac.</td>
<td>Woody Heckeroth</td>
<td>Upland Residential / Rangeland</td>
</tr>
<tr>
<td>035-030-17</td>
<td>1.88 ac.</td>
<td>Nira Stewart</td>
<td>Upland Residential / Rangeland</td>
</tr>
<tr>
<td>035-030-65</td>
<td>12.46 ac.</td>
<td>Nira Stewart</td>
<td>Upland Residential / Rangeland</td>
</tr>
</tbody>
</table>

Per sections 20.056 and 20.060 of Mendocino County Code, mining is an allowed use in the Upland Residential and Rangeland zoning districts subject to issuance of a Major Use Permit.

#### 2.3.3 Access and Utilities

The Stewart Gravel Bar will be accessed by an existing dirt road approximately 0.2 miles in length that connects via an existing encroachment to Highway 162 located north of the site (see Sheet C-1, Reclamation Plan and Figure 2, Existing Conditions Site Map). The access road will remain post-reclamation to facilitate the landowner’s access to the River. Wylatti has consulted with the California Department of Transportation (“Caltrans”) on the proposed Project, which included a site visit with the Caltrans South Region Permit Inspector. Per Caltrans’ direction, prior to annual extraction activities Wylatti will obtain a traffic control Encroachment Permit to place appropriate warning devices (e.g., construction signs, message boards) at or near the driveway on SR 162 during Project activities (see Appendix C, Caltrans Consultation E-Mail).

No known utility facilities are located in the vicinity of the project site. Given the remote nature of the site, and seasonal nature of the extraction activities, bottled water and portable toilets will be provided for the on-site employees. The portable toilet will be located on flat ground outside of the stream channel, will be properly maintained and cleaned, and will be removed at the end of each extraction season. In addition, the portable toilet will be placed in containment such as an impermeable plastic liner to contain any potential spills.

#### 2.3.4 Geology

The geology of the site consists of a riverine environment with gravel beds surrounded by steep terrain. According to a geotechnical memorandum prepared in support of gravel extraction from the nearby McKenzie Gravel Bar, the river at this location is known to have adequate bedloads to support the requested gravel extraction and allow more than 50% of the bedload to transfer further downstream, as recommended by NMFS (Crawford & Associates, 2015). See Figure 5, Geology Map and Appendix D, Geotechnical Memorandum.
2.3.5 Soils

According to the Natural Resources Conservation Service (“NRCS”), soils within the project area consist of Xerofluvents-Riverwash complex, 0 to 2 percent slopes; gravelly, sandy loams with a deep restrictive layer of more than 80 inches in depth. See Figure 6, NRCS Soils Map.

2.3.6 Seismicity

The Stewart Gravel Bar is not located on any known active earthquake fault trace. The site is also not contained within an Alquist-Priolo Earthquake Fault Zone. Therefore, the potential for ground rupture due to onsite active faulting is considered low.

2.3.7 Air Quality

Wylatti commissioned Illingworth & Rodkin, Inc. to perform greenhouse gas (“GHG”) emissions modeling of proposed Project activities (see Appendix E, GHG Analysis). The analysis reveals that the Project’s emissions are well below the MCAQMD’s significance thresholds.

2.3.8 Noise

Wylatti commissioned Illingworth & Rodkin, Inc. to perform a noise and vibration assessment of proposed Project activities (see Appendix F, Noise Assessment). The analysis reveals that noise levels and groundborne vibration resulting from Project activities (e.g., road repair, gravel extraction, transport, and reclamation operations) will comply with the County’s noise standards and be below respective significance thresholds.

2.3.9 Biological Resources and Communities

Wylatti commissioned Gallaway Enterprises (“Gallaway”) to assess the potential for sensitive biological communities, special-status plant and wildlife species, and sensitive biological resources at the site (see Appendix G, Biological Resources Assessment). The key findings of the Biological Resources Assessment are summarized below.

Habitat Types

Barren: Barren habitat is typified by non-vegetated soil, rock, and gravel. The majority of the project site contains barren habitat, as the general area for extraction activities is comprised entirely of an exposed gravel bar located within the Middle Fork Eel River. There is also a barren, unpaved access road that will be utilized by trucks for Project activities. Some canopy of the surrounding mixed oak-foothill pine habitat overhangs the access road and could be utilized by nesting birds. The barren habitat type typically provides low quality habitat to wildlife. Some ground-nesting birds, such as killdeer (*Charadrius vociferus*), will nest in gravelly, barren substrate. Killdeer were observed within the study area during the habitat assessment.

Riverine: Riverine habitat is characterized by intermittent or continually running water. The Middle Fork Eel River provides riverine habitat within the project area when water is present. The Middle Fork Eel River flows during winter and early spring months when water levels are
high. Later in the year, flows subside and the exposed gravel bar within the BSA does not contain aquatic features. The Middle Fork Eel River flows perennially adjacent to the project area. No shaded riverine aquatic habitat is present as there are no trees or riparian vegetation within the project area. Riverine habitat provides food for waterfowl, herons (Ardeidae sp.), and many species of insectivorous birds, hawks, and their prey. This portion of the Middle Fork Eel River hosts myriad aquatic species and is within designated critical habitat for anadromous fish species.

**Critical Habitat**

The project area is located on an exposed gravel bar adjacent to the Middle Fork Eel River. The Middle Fork Eel River is designated as critical habitat for Southern Oregon Northern California Coast (SONCC) Evolutionarily Significant Unit (ESU) Coho salmon (Oncorhynchus kisutch), California Coastal (CC) ESU Chinook salmon (Oncorhynchus tshawytscha), and Northern California (NC) Distinct Population Segment (DPS) steelhead (Oncorhynchus mykiss).

**Essential Fish Habitat (EFH)**

The Middle Fork Eel River supports populations of Chinook salmon which may spawn, breed, feed and grow within its stream channel and associated tributaries. Therefore, the Middle Fork Eel River is considered EFH under the Magnuson-Stevens Fishery Conservation and Management Act. The Middle Fork Eel River is also designated as EFH for coho salmon species; however, coho salmon do not occur in the Middle Fork Eel River and it is therefore not EFH for coho salmon.

**Sensitive Natural Communities**

No Sensitive Natural Communities occur within the project area.

**Special-Status Species**

The following special-status species have potential to occur within the BSA based on the presence of suitable habitat and/or known records of species occurrence within the vicinity of the BSA.

**Endangered, Threatened and Rare Plants:** There were no endangered, threatened, or rare plants observed within the project area during the protocol-level rare plant survey conducted on May 30, 2019.

**Endangered, Threatened and Special Status Wildlife:** A wildlife habitat assessment was conducted within the project area on May 30, 2019. Suitable habitat was identified for several avian species protected under the MBTA and for special-status aquatic species that may occur adjacent to the project area.

**Northern California Steelhead**

The lower 25 miles of the Middle Fork Eel River below the confluence of the Black Butte River has historically had elevated stream temperatures and limited presence of salmonids due to a Mediterranean climate that causes hot, dry summers in the area (Yoshiyama and Moyle 2010). Steelhead spawn in the upper reaches of the Middle Fork.
Eel River; however, due to high temperatures and lack of cover, woody debris, and riparian vegetation, steelhead are unlikely to hold or spawn in the river adjacent to where the project is located. Steelhead individuals may migrate past the project area during the proposed construction period, but will not occur within the project area as extraction will only occur when the project area is dry.

**California Coastal Chinook Salmon**

The lower 25 miles of the Middle Fork Eel River below the confluence of the Black Butte River has historically had elevated stream temperatures and limited presence of salmonids due to a Mediterranean climate that causes hot, dry summers in the area (Yoshiyama and Moyle 2010). California Coastal Chinook salmon spawn in the upper reaches of the Middle Fork Eel River; however, due to high temperatures and lack of cover, woody debris, and riparian vegetation, Chinook salmon are unlikely to hold or spawn in the river adjacent to where the project is located. Chinook salmon individuals may migrate past the project area during proposed the construction period, but will not occur within the project area as construction will only occur when the project area is dry.

**Foothill Yellow-Legged Frog**

Foothill yellow-legged frogs generally prefer low-gradient, partially shaded streams with 20 to 90 percent canopy cover. In larger channels like the Middle Fork Eel River, breeding sites are often at point bars or depositional environments near the tail-end of pools or near tributary confluences, as these sites have reduced chance of scour (Hayes *et al.* 2016). As gravel extraction activities are proposed to occur during the summer low-flow period when the project area is expected to be dry, there is no potential for FYLF to breed within the project area when water is not present. There is cobble and riffle habitat present adjacent to the project area; however, there is a total absence of riparian vegetation and shade that appears to be an important component of FYLF breeding habitat (Hayes and Jennings 1988, Hayes *et. al* 2016). Due to lack of canopy cover, lack of observations during the habitat assessment, and absence of water within the project area, there is no potential for FYLF to occur within the project area during the proposed construction period.

**Western Pond Turtle**

Western pond turtles are known to bask on banks and woody debris, such as logs, along the sides of perennial aquatic features like the Middle Fork Eel River. There is moderate potential for western pond turtle to occur within the project area.

**Migratory Birds and Raptors**

There is suitable nesting habitat for a ground-nesting avian species within and adjacent to the project area, and there is suitable nesting habitat for tree- and shrub-nesting avian species immediately adjacent to the project area.
Based on the results of the Biological Resources Assessment, the project has incorporated the minimization and mitigation measures recommended by Gallaway to reduce or eliminate project-specific impacts to special-status wildlife species.

2.3.10 Hydrology

The gravel bar is located within the Middle Fork Eel River, but is generally dry and exposed during the summer months. The Middle Fork Eel River flows through the project area during winter and early spring months when water levels are high. Later in the year, flows subside and the exposed gravel bar within the project area does not contain aquatic features. The Middle Fork Eel River flows perennially adjacent to the project area.

The USGS, in cooperation with the California Department of Water Resources conducted intense studies of the watershed above Dos Rios on the Middle Fork Eel when a large reservoir was being planned for the Round Valley area in the 1960's and early 1970's. The bedload and suspended load was sampled over a period between 1956 and 1968 to predict the amount of sediment which would become trapped in the reservoir over a 100 year period. It was found that, at Dos Rios, approximately 43% clay and 34% silt was suspended load because of the natural turbulence flume caused by the narrow canyon upstream of Dos Rios, while 23% of the total load moved along as bedload consisting of sand, gravel and cobbles. This explains why the deposited bed load is so clean and contains minimal amounts of silt and clay particles. Approximately half of the total sediment load arrives at the confluence of Black Butte Creek and the Middle Fork Eel River about 23 miles upstream and then travels on down to Dos Rios. This long transport distance accounts for the downstream reduction in particle size by attrition, disintegration by atmospheric weathering, and decomposition by chemical reaction, and provides an explanation for the durable sand and gravel materials found in the Middle Fork Eel River.

It was also found that a long-term average of 1,980,000 tons of suspended load plus bedload arrives at Dos Rios annually from the 745 square miles watershed area above it. See Appendix D, Geotechnical Memorandum.

2.4 Effect on Surrounding Land Uses [CCR §3502(b)(1)]

2.4.1 Surrounding Land Uses

The project area is comprised of a gravel bar on the Middle Fork Eel River and the existing access road. The surrounding area consists of the Mendocino National Forest. There is a residential home and several associated outbuildings located at a higher elevation just north of the project area. Immediately south of the project area is the Middle Fork Eel River, and beyond that is the Mendocino National Forest. The overall topography of the BSA where gravel extraction will take place is relatively flat; the access road from Highway 162 to the Middle Fork Eel River is located on hilly terrain with a steep drop in elevation to river access. The access road from Highway 162 is at approximately 1033 feet in elevation, and the project area within the Middle Fork Eel River where extraction will occur is located at approximately 909 feet in elevation. The access road is
surrounded by mixed oak-foothill pine woodlands, interspersed with annual grassland and manzanita. The gravel bar itself is barren, with little to no vegetation present.

2.4.2 Effect that Reclaimed Site Conditions May Have on Surrounding Land Uses

The reclaimed site condition will involve returning the gravel bar to a state that is consistent with existing conditions. Strict extraction and reclamation guidelines imposed by the USACE, NMFS, CDFW, NCRWQCB, and Mendocino County ensure that the bar is left in a condition that minimizes impacts to hydrology and fish and wildlife resources.

2.5 Slope Stability and Disposition of Fill Materials

2.5.1 Final Slopes; Slope Angles Flatter than Critical Gradient [CCR §3502(b)(3)]

CCR §3704(f). Final cut slopes have minimum factor of safety for end use and conform with surrounding topography and/or approved end use.

Extraction will consist of creating a shallow excavation that protects the upper one third of the bar from any disturbance, is irregular in shape, and conforms to the low-flow channel geometry of the adjacent Middle Fork of the Eel River. The extraction area maintains an undisturbed head of bar buffer that begins at the upstream end of the bar and extends downstream for a distance equaling approximately 30-35 percent of the total length of the exposed bar to protect bar stability. A lateral buffer is also maintained between the outer edge of the bar and the low-flow channel providing an offset from the water’s edge for equipment wheels or tracks (CDFW does provide allowances for the Operator to extend equipment buckets into the buffer to flatten berms and fill in holes, providing a smooth transition to the river which will not trap fish). The interior portion of the bar is skimmed down to an approximate longitudinal slope of 2% from the water’s edge ascending to the head of bar buffer (approximating the gradient of the adjacent low-flow channel). Cut slopes will not exceed 2:1.

2.5.2 Fill Slopes and Compaction Standards

CCR §3502(b)(4). The source and disposition of fill materials used for backfilling or grading shall be considered in the reclamation plan. Where end uses are sensitive to settlement, include compaction of the fill materials in conformance with good engineering practice.

CCR §3704(a). For urban use, fill compacted in accordance with UBC, local grading ordinance, or other methods approved by the lead agency.

CCR §3704(b). For resource conservation, compact to standard for that end use.

CCR §3704(d). Final reclamation fill slopes not exceed 2:1, except when allowed by site-specific engineering analysis, and can be revegetated.
No imported fill or specified compaction effort will be necessary. Following seasonal extraction activities, finished grading/grooming of the bar will occur to fill-in low areas and depressions, but will consist of only native material from the gravel bar itself. If a temporary wet crossing (culvert) is utilized, the temporary culvert is removed following extraction to provide an unobstructed channel for winter flows. The culvert area is backfilled with clean sandy gravel from the gravel bar, so a clean channel is left after the culvert is removed. The seasonal gravel extraction design conforms to the low-flow channel geometry of the adjacent Middle Fork of the Eel River.

2.6 Hydrology and Water Quality

2.6.1 Surface and Groundwater Quality Protected in Accordance with Porter-Cologne and Clean Water Acts [CCR §3710(a)]

- **CCR §3706(a).** Mining and reclamation to protect downstream beneficial uses.
- **CCR §3706(b).** Water quality, recharge, and groundwater storage that is accessed by others shall not be diminished, except as allowed by plan.
- **CCR §3503(b)(2).** Substantially prevent siltation of groundwater recharge areas.

Protection of surface waters, including sediment and erosion control, is a key objective of the seasonal gravel extraction process. Water quality protection measures include: 1) timing and location of seasonal extraction and reclamation activities, 2) protective features of the extraction and reclamation design, 4) implementation of Best Management Practices, and 5) an iterative adaptive management process that includes compliance with a number of regulatory permits and authorizations reviewed and issued on an annual basis.

**Timing and Location of Seasonal Extraction:** Mining will occur only on the dry gravel bar surface during the summer low-flow season (June 15 to October 15), and mining will not take place within the wetted channel. Seasonal extraction activities are subject to a prescriptive time schedule administered by CDFW, ACOE, NMFS, and the NCRWQCB (see Section 2.1.6 of this Plan).

**Extraction and Reclamation Design:** Extraction will be limited to the aggraded portion of the bar, utilizing horizontal and vertical offsets for buffers from the low-flow channel. No extraction would occur from the upper 30-35 percent of the primary bar in order to protect bar stability. If a temporary wet crossing (culvert) is utilized, the temporary culvert will be removed to provide an unobstructed channel for winter flows. The culvert area is backfilled with clean sandy gravel from the gravel bar, so a clean channel is left after the culvert is removed. There will be no sediment which could enter the watercourse from this area.

**Best Management Practices:** Seasonal maintenance of the access road is performed following the extraction season to assure no adverse impacts to water quality. The access road is regraded...
and Best Management Practices (“BMPs”) including water-bars and straw-mulching are used to stabilize the road surface. Storm water runoff is diverted at each water-bar to sheet flow down the slope below the access road in a manner which does not create erosion or sediment transport. In addition, all equipment and debris will be removed from the project area at the end of each extraction season.

**Adaptive Management/Regulatory Compliance:** The annual gravel extraction design is reviewed and approved by overseeing agencies, including CDFW, USACE, NMFS, NCRWQCB, and Mendocino County based on site-specific characteristics of the gravel bar resulting from replenishment during winter flows. Seasonal extraction and reclamation activities are subject to compliance with water quality protection measures in the 1600 Streambed Alteration Agreement, 404 Dredge/Fill Permit, and 401 Water Quality Certification.

### 2.6.2 Drainage, Sediment and Erosion Control [PRC §2773(a)]

- **CCR §3503(a)(3).** Erosion control facilities constructed and maintained where necessary.
- **CCR §3503(b)(1).** Settling ponds used where they will provide significant benefit to water quality.
- **CCR §3503(e).** Grading and revegetation to minimize erosion and convey surface runoff to natural drainage courses or interior basins. Spillway protection.
- **CCR §3706(c).** Erosion and sedimentation controlled during all phases of construction, operation, reclamation, and closure of surface mining operation to minimize siltation of lakes and water courses per RWQCB/SWRCB.
- **CCR §3706(d).** Surface runoff and drainage controlled to protect surrounding land and water resources. Erosion control methods designed for not less than 20 year/1 hour intensity storm event.
- **CCR §3706(e).** Altered drainages shall not cause increased erosion or sedimentation.

As described in the preceding response to Section 2.6.2, a number of sediment and erosion control protection measures are implemented as components of the seasonal extraction and reclamation process, including compliance with a Section 401 Certification from the NCRWQCB. Best Management Practices, including regrading of the access road, and installation of water bars and straw mulch to stabilize the road surface, will be implemented to control potential erosion. No other erosion control facilities or settling ponds are anticipated.

### 2.6.3 Contaminant Control and Mine Waste Disposal [PRC §2772(c)(8)(A)]

- **CCR §3503(a)(2).** Overburden stockpiles managed to minimize water and wind erosion.
- **CCR §3503(d).** Disposal of mine waste and overburden shall be stable and not restrict natural drainage without suitable provisions for diversion.
No overburden, tailings, or other types of mine waste will be generated by the seasonal gravel extraction activities. The gravel bar itself does not contain overburden, and all temporary stockpiles of sand and gravel are removed at the end of the extraction season.

2.6.4 In-stream Activities [CCR §3710(b)]

- PRC §2772(c)(8)(B). Rehabilitation of streambanks/beds to minimize erosion.
- CCR §3502(b)(6). Temporary stream and water diversions shown.
- CCR §3706(f)(1). Stream diversions constructed in accordance with Fish and Game Code.
- CCR §3706(g). All temporary stream diversions eventually removed.
- CCR §3710(c). In-stream channel elevations and bank erosion evaluated annually using extraction quantities, cross-sections, aerial photos.
- CCR §3710(d). In-stream mining not cause fish to be trapped in pools or off-channel pits, or restrict migratory or spawning activities.

The operator will employ an iterative, adaptive management approach to extraction of the gravel bar, working in close coordination with NMFS and CDFW.

Mining will occur only on the dry gravel bar surface during the summer low-flow season (June 15 to October 15), and will not take place within the wetted channel. A maximum of 20,000 cubic yards of material will be removed annually, with actual quantities determined on an annual basis based on channel morphology and gravel replenishment, and subject to review and approval by CDFW and NMFS.

Gravel extraction at the site will be consistent with the NMFS/CDFW approved skimming methodology which involves removal of gravel from selected areas of the bar in a sloped configuration which avoids creating holes or channels, and is done by using excavators, loaders, and haul trucks. Extraction will be limited to the aggraded portion of the bars, utilizing horizontal and vertical offsets for buffers from the low-flow channel.

The extraction area maintains an undisturbed head of bar buffer that begins at the upstream end of the bar and extends downstream for a distance equaling approximately 30-35 percent of the total length of the exposed bar to protect bar stability. A lateral buffer is maintained between the outer edge of the bar and the low-flow channel providing a vertical offset from the water’s edge and a horizontal offset of at least 10 feet in width from the water’s edge for equipment.
wheels or tracks (CDFW does provide allowances for the Operator to extend equipment buckets into the buffer to flatten berms and fill in holes, providing a smooth transition to the river which will not trap fish). The remaining interior portion of the bar is skimmed down to a longitudinal slope approximating the gradient of the adjacent low-flow channel from the downstream end of the bar ascending to the head buffer. This approach to mining of the bar is used to avoid any potential adverse impacts to rare, threatened or endangered aquatic species, including salmonid species known to occur at various times of year in the Eel River system. See Sheets C-1 – C-3 for a conceptual extraction plan (with finished topography and cross-sections).

Mining of sand and gravel will be performed using conventional construction equipment (e.g., dozer, excavator, water truck). No processing of materials will occur on site. Extracted materials will be hauled using conventional haul trucks to an established aggregate processing plant on SR 162, where storage and processing will be conducted. No overburden occurs on the active gravel bar and none accumulates with this method of extraction. Mining activities are seasonally limited between June 15 and October 15 each year, and are dependent on sufficient accumulation of materials moving through the river system during large annual flow events.

Following annual extraction activities, reclamation grading of the gravel bar is performed to fill in low areas and depressions. The extraction surface is reclaimed to a smoothly graded condition such that no depressions or lumps greater than one-half foot higher or lower than the planned grading plane remain. In addition, final contouring of the gravel bar is performed to meet agency-approved post-extraction slopes and gravel bar configuration to minimize erosion.

If a temporary wet crossing (culvert) is utilized, the temporary culvert will be removed to provide an unobstructed channel for winter flows. The culvert area is backfilled with clean sandy gravel from the gravel bar, so a clean channel is left after the culvert is removed. There will be no sediment which could enter the watercourse from this area.

In order to monitor channel condition and to inform the adaptive management process, annual surveys, including aerial photos and cross sections are performed. Each spring after elevated winter flows have subsided, monitoring cross-sections of the low-flow channel and gravel bar would be surveyed to evaluate the aggregate extraction potential of the bar, based on deposition of transported sediments. The previously established cross-sections are monumented by permanent, paired benchmarks at their endpoints on both sides of the Middle Fork Eel River's channel. The channel geometry within the wetted channel, including the thalweg, would also be surveyed within each monitoring cross-section. For each monitoring cross-section, the spring profiles will be superimposed with the previous year's post-extraction (fall) profiles. This comparison determines the locations and quantities of gravel recruitment as a result of the previous winter's high-flow sediment transport events, as well as any changes to the bar's morphology and channel configuration. The cross-section profile comparison provides the basis for estimating the amount of gravel available for extraction and the delineation of proposed extraction configuration. Cross-sections will be spaced closely enough to accurately determine the amount of gravel recruitment, as well as to monitor the thalweg elevation of the low-flow channel. Cross-sections will be plotted on an accurate plan of the site with the cross-section
reference points and locations of the ground-based photographs clearly identified. These data (the superimposed cross-sections on the plan, with photos locations and cross-section reference points) are submitted to ACOE, NMFS, CDFW, NCRWQCB, and Mendocino County Planning Department for agency approval prior to commencing with the planned gravel extraction for the season.

2.7 Protection of Fish and Wildlife Habitat [CCR §3503(c)]

*CCR §3703(a).* Sensitive species conserved or mitigated.

*CCR §3703(b).* Wildlife habitat at least as good as pre-project, if approved end use is habitat.

*CCR §3703(c).* Wetlands avoided or mitigated at 1:1 minimum.

*CCR §3704(g).* Piles or dumps not placed in wetlands without mitigation.

A Biological Resources Assessment was performed by a qualified biologist, and protection measures related to anadromous fish species, Foothill Yellow-Legged Frog, Western Pond Turtle, migratory birds and raptors, and Waters of the United States will be incorporated as conditions of approval (See Appendix D, Biological Resources Assessment).

The annual extraction process is highly regulated by fish and wildlife agencies, including CDFW and NMFS. The process incorporates multiple fish and wildlife habitat protection measures, and project activities will only occur during the summer low-flow season (June 15 through October 15) to avoid potential impacts to anadromous fish. Approval of seasonal extraction and reclamation activities involves an iterative adaptive management process that includes compliance with a number of regulatory permits and authorizations reviewed and issued on an annual basis (See responses to Section 2.6.1 and 2.6.4 for a detailed summary of the annual extraction and reclamation process). No fill of wetlands is proposed by the project.

2.8 Resoiling [CCR §3503(f)]

*CCR §3704(c).* Mine waste stockpiled to facilitate phased reclamation and separate from growth media.

*CCR §3503(a)(1).* Removal of vegetation and overburden preceding mining kept to a minimum.

*CCR §3711(a).* All salvageable topsoil removed. Topsoil and vegetation removal not precede mining by more than one year.

*CCR §3711(b).* Topsoil resources mapped prior to stripping, location of stockpiles on map. Topsoil and growth media in separate stockpiles.
The Plan covers seasonal extraction of river-run sand and gravel from an in-stream gravel bar. The gravel bar does not contain topsoil or overburden, so no soil salvage, stockpiling, or resoiling is proposed. Removal of vegetation on the gravel bar (if necessary), will be kept to a minimum and will only occur to facilitate mining within the approved extraction footprint. Any vegetation removal will be performed in accordance with annual extraction requirements of CDFW, USACE, NMFS, and the NCRWQCB.

2.9 Revegetation [CCR §3705]

2.9.1 Vegetative Cover and Planting Procedures

CCR §3503(g). Revegetation and plant survival (use available research).

CCR §3705(a). Vegetative cover, suitable to end use, self-sustaining. Baseline studies documenting cover, density and species richness.

CCR §3705(c). Decompaction of site.

CCR §3705(g). Use native plant species, unless exotic species meet end use.

CCR §3705(h). Plant during correct season.

CCR §3705(i). Use soil stabilizing practices and irrigation, when necessary to establish vegetation.

CCR §3707(d). Fertilizers and amendments not contaminate water.

The Plan covers seasonal extraction of river-run sand and gravel from an in-stream gravel bar, with reclamation back to riverine (gravel bar). The proposed extraction area is located outside of established riparian areas. Annually inundated portions of the gravel bar contain primarily annual vegetation. Natural processes of removal by flood and replacement by deposition
annually renews vegetation to these areas. As a result, other than natural re-occurrence, no revegetation is proposed.

2.9.2 Revegetation Test Plots [CCR §3705(b)]

No revegetation test plots will be conducted as revegetation of the gravel bar is not proposed.

2.9.3 Revegetation of Roads and Traffic Routes

CCR §3705(d). Roads stripped of roadbase materials, resoiled and revegetated, unless exempted.

CCR §3705(f). Temporary access not bladed. Barriers installed.

The existing access road will be left in place to facilitate access to the River. During operations, barriers such as berms and k-rails will be used for safety purposes and to meet MSHA/OSHA requirements along the access road. No new temporary access routes are anticipated to be needed for mining or reclamation.

2.9.4 Noxious Weed Management [CCR §3705(k)]

Noxious weed management within the reclamation area is not anticipated as no revegetation is proposed to facilitate the end use, and the project area consists solely of an in-stream gravel bar inundated annually by winter flows with an associated access road.

2.9.5 Plant Protection Measures, Fencing, Caging [CCR §3705(l)]

No plant protection measures (e.g., fencing, caging) are anticipated as no revegetation is proposed.

2.9.6 Revegetation Performance Standards and Monitoring [PRC 2773(a)]

CCR 3705(m). Success quantified by cover, density and species-richness. Standards proposed in plan. Sample method set forth in plan and sample size provide 80 percent confident level, as minimum.

CCR §3705(j). If irrigated, demonstrate self-sustaining without for two years minimum.

No revegetation is proposed.
2.9.7 Agricultural Fertility Performance Standards [CCR §3707 and CCR §3708]

CCR §3707(a). Return prime agriculture to fertility level specified in approved plan.

CCR §3707(c). Productivity rates equal pre-project or similar site for two consecutive years. Rates set forth in plan.

CCR §3708. Other ag capable of sustaining crops common to area.

The project involves in-stream extraction and is not located on agricultural lands. Therefore, performance standards set forth in CCR §3707 and §3708 (required for agriculture end uses on agricultural lands) do not apply.

2.10 Equipment Removal and Incidental Waste Disposal

CCR §3709(a). Equipment stored in designated area and waste disposed of according to ordinance.

CCR §3709(b). Structures and equipment dismantled and removed.

CCR §3502(b)(5). Disposition of old equipment.

When not in use, equipment used in mining and reclamation will be stored in a designated area outside of the stream channel. If a temporary wet crossing (culvert) is utilized, the temporary culvert will be removed each year to provide an unobstructed channel for winter flows. All temporary stockpiles, equipment, and debris will be removed from the project area at the end of each season.

2.11 Closure of Portals, Shafts and Openings

CCR §3713(a). Drill holes, water wells, monitoring wells completed or abandoned in accordance with laws.

CCR §3713(b). All portals, shafts, tunnels, or openings, gated or protected from public entry, but preserve access for wildlife.

No portals, shafts, tunnels, water wells, or other openings are proposed.

2.12 Administrative Requirements

2.12.1 Statement of Reclamation Responsibility [PRC §2772(c)(10)]

Please see Appendix H, Statement of Reclamation Responsibility.
2.12.2 Financial Assurances [PRC §2773.1]

Please see Appendix I, Financial Assurance Cost Estimate. Financial assurances will remain in effect for the duration of the mining operation and any additional period until reclamation is complete. The Financial Assurance Cost Estimate (“FACE”) will continue to be updated annually and submitted to the County for review. Financial assurances mechanisms (“FAM”), which provide financial security for reclamation requirements, may be adjusted (up or down as appropriate) based on the updated FACE.

2.12.3 Lead Agency Approvals and Annual Inspection [PRC §§2772.1 and 2774]

Upon Plan approval, and subsequent County and regulatory agency approvals, the conditions of approval and/or mitigation measures pertinent to reclamation of mined lands will be added to this Plan pursuant to PRC §2772.1(b)(7)(B). Appendix J is included as a placeholder for this purpose.

The Operator will submit a Mining Operation Annual Report to DMR and the County. This report will summarize the previous year’s production and reclamation activities. SMARA also requires the County to conduct an annual inspection of the site to ensure compliance with the approved Plan.

2.12.4 All Mining Operations Since 1/1/76 Included in Reclamation Plan [PRC §2776]

No pre-1976 mining disturbances are known to occur at the site. All areas planned to be disturbed in the future are included in this Plan.

2.12.5 Mining in Floodplain and Within One Mile of State Hwy Bridge [PRC §2770.5]

Whenever a new surface mining operation is proposed that involves mining within the 100-year floodplain and within one mile of a State Highway Bridge, the County (lead agency) is required to notify the State Department of Transportation (“DOT”) that the application has been received. The County shall not issue the permit until the DOT has submitted its comments or until 45 days from the date the application for the permit was submitted, whichever occurs first. The Stewart Bar is located approximately 1.05 miles east of the Hwy 162 bridge that crosses the Middle Fork Eel River. Although not technically required given that the bar is located greater than one mile from the nearest State highway bridge, the County may choose to notify Caltrans in accordance with PRC §2770.5.

3.0 LEAD AGENCY REQUIREMENTS [PRC §2772(C)(11)]

Section 3.0 of this Plan addresses specific lead agency reclamation requirements, where it is believed those requirements either supplement or amplify the requirements of SMARA as outlined in Section 2.0. This part is not intended to restate or address every SMARA code section or policy related to the reclamation of mined lands.
Surface mine reclamation is regulated by Mendocino County primarily through Mendocino County Code, Chapter 22.16, Surface Mining and Reclamation (“MCSMO”), which addresses County regulations and procedures governing the establishment, use and reclamation of mined lands in accordance with the County General Plan, including mining reclamation plans, financial assurances, reporting, inspections and violations.

### 3.1 Surface Mining and Reclamation Code [Chapter 22.16]

The MCSMO incorporates SMARA (including the SMGB’s implementing regulations) by reference, except when the provisions of the MCSMO are more restrictive than correlative state provisions. The following sections outline the MCSMO’s requirements related to the reclamation of mined lands, with references to where the required standards are addressed in this Plan.

#### 3.1.1 Permit and Reclamation Plan Required [MCSMO §22.16.060]

No surface mining activities will occur in connection with the project until an approved permit and Reclamation Plan are obtained from the County.

#### 3.1.2 Reclamation Plan Form and Content [MCSMO §22.16.080]

- A. Name and address of applicant: Section 2.1.1
- B. Name and address of property owner: Section 2.1.5, 2.3.2
- C. Name and address of owner of mineral rights: Section 2.1.5
- D. Name and address of lessee: Section 2.1.1
- E. Name and address of operator: Section 2.1.1
- F. Name and address of designated agent: Section 2.1.1
- G. Assessor’s parcel numbers: Section 2.3.2
- H. Legal description: Appendix A, Site Legal Description
- I. Site development plan: Sheets C-1 and C-2.
- J. Vicinity map; statement re: transportation method: Figure 1; Section 2.1.6
- K. Pre and post mining cross-sections: Sheet C-2.
- L. Quantity and type of materials; quantity of overburden and waste: Section 2.1.2; Section 2.6.3
- M. Proposed initiation and termination dates: Section 2.1.3
- N. Maximum anticipated depth: Section 2.1.4
- O. Reclamation phasing schedule: Section 2.1.6
- P. End use; notification to land owner: Section 2.2.1; Appendix B, Owner’s Acknowledgement and Authorization
Q. Description of reclamation measures: Section 2.1 through 2.11

R. Statement of responsibility: Appendix H, Statement of Reclamation Responsibility

S. Protection of visual resources: Following seasonal extraction activities the gravel bar will be recontoured to meet approved extraction design guidelines. The project does not involve leveling, cutting, removal, or other alteration of ridgelines on slopes of twenty percent (20%) or more.

T. Reclamation cost estimate: Appendix I, Financial Assurance Cost Estimate


V. Any other information: See entirety of Plan

3.1.3 Reclamation Standards [MCSMO §22.16.090]

A. Time schedule: Reclamation will be completed on an annual basis following the completion of seasonal extraction activities.

B. Final grading and slopes to prevent erosion: Following annual extraction activities, reclamation grading of the gravel bar is performed to fill in low areas and depressions. The extraction surface is reclaimed to a smoothly graded condition such that no depressions or lumps greater than one-half foot higher or lower than the planned grading plane remain. In addition, final contouring of the gravel bar is performed to meet agency-approved post-extraction slopes and gravel bar configuration to minimize erosion.

C. Resoiling: Section 2.8

D. Revegetation: Section 2.9

E. Reclaimed condition: See entirety of Plan

F. Name and address of designated agent: Section 2.1.1

G. Water-filled excavation: N/A

H. Regrading to minimize erosion: Section 2.6

I. Silt basins: N/A

J. Final grading and drainage: Section 2.6

K. No degradation of water quality: Section 2.6

L. Building site end use: The end use of the mining portion of the site is riverine (gravel bar) consistent with existing conditions. The existing access road will remain to allow future access to the river. The road will be maintained on an annual basis.

M. Removal of overburden and vegetation: Section 2.8

N. Stockpiles: No overburden stockpiles will be generated as the gravel bar does not contain overburden. Temporary stockpiles of sand and gravel will have sufficient
moisture content to prevent wind-blown erosion, and will be removed prior to the end of the seasonal extraction period.

O. Prevention of siltation to groundwater: Section 2.6

P. Protection of fish and wildlife habitat: Section 2.7

Q. Permanent waste piles: N/A

R. Grading to minimize erosion: Section 2.6

S. Resoiling: Section 2.8

T. Revegetation: Section 2.9

U. Consistency with General Plan: Mining at the site is consistent with the goals and policies of the County General Plan, which recognizes the importance of extraction of minerals to the economy of Mendocino County. Per sections 20.056 and 20.060 of Mendocino County Code, mining is an allowed use in the Upland Residential and Rangeland zoning districts subject to issuance of a Major Use Permit.

3.1.4 Application of Plan to Specific Site [MCSMO §22.16.100]

The Plan has been prepared based upon the character of the surrounding area and site-specific characteristics of the property.
Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

Site Vicinity Map
Stewart Bar Mining Project
Wylatti Resource Management
Mendocino County, California

Figure 1 4/10/2020

Aerial photo adapted from Google Earth Maps Imagery Date 8/12/2017.

Legend:
- Project Boundary (3.4 Acres)
- Access Road

Existing Conditions Site Map
Stewart Bar Mining Project
Wylatti Resource Management
Mendocino County, California

Figure 2
4/10/2020

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.
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APN: 035-030-65
Stewart

APN: 035-030-17
Stewart

APN: 035-030-49
Heckeroth

Parcel Site Map
Stewart Bar Mining Project
Wylatti Resource Management
Mendocino County, California

Aerial photo adapted from Google Earth Maps Imagery Date 8/12/2017.
Parcel data. Reclamation Plan, Stewart Bar-Plan View Skim Extraction Configuration. DATE of MAP.

Legend:
- Project Boundary (3.4 Acres)
- Parcels

Figure 3  4/10/2020
Aerial photo adapted from Google Earth Maps Imagery Date 8/12/2017.
Zoning & Land Use dataset. County of Mendocino. 04/01/2018.

Legend:
- Project Boundary (3.4 Acres)
- Parcels

Zoning and General Plan Land Use
Stewart Bar Mining Project
Wylatti Resource Management
Mendocino County, California

APN: 035-030-65
Stewart

APN: 035-030-17
Stewart

APN: 035-030-49
Heckeroth

Zoning: Upland Residential - 40
GPLU: Remote Residential - 40

Zoning: Rangeland
GPLU: Range Land - 160
Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

Aerial photo adapted from Google Earth Maps Imagery Date 8/12/2017.

Legend:
- Project Boundary (3.4 Acres)
- FF - Franciscan Formation

Geology Site Map
Stewart Bar Mining Project
Wylatti Resource Management
Mendocino County, California

Figure 5 4/10/2020

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.
NRCS Soils Map
Stewart Bar Mining Project
Wylatti Resource Management
Mendocino County, California

Figure 6 4/10/2020

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.
Exhibit A

Legal Description for APN 035-030-49 & 50

The land referred to herein is described as follows:

All that certain real property situated in the County of Mendocino, State of California, more particularly described as follows.

Beginning at the Northwest corner of the Southeast quarter of the Northeast quarter of Section 5, Township 21 North Range 13 West, Mount Diablo Meridian; thence south along the West line of said Southeast quarter of the Northeast quarter and the West line of the Northeast quarter of the Southwest quarter to the Southwest corner thereof; thence Easterly along the South line of said Northeast quarter of the Southeast quarter 800 feet; thence Northwesterly to a point in the centerline of Highway 162 which bears Northeasterly 180 feet from the Northeast corner of the lands described in the Deed executed by Walter A. Dellamore, et ux to Earl W. Bowers, et ux recorded October 16, 1973 in Book 941 Official Records, Page 537; thence generally Easterly along the centerline of Highway 162 to its intersection with the East line of the Northwest quarter of Section 4; thence Northerly along the East line of the Southeast quarter of the Northwest quarter of Section 4; thence Westerly along the North line of the South half of the Northwest quarter of Section 4 and the North line of the Southeast quarter of Section 5 to the point of beginning.

Excepting therefrom the following:

1st: That portion described in the Deed executed by F.M. Goforth to County of Mendocino, recorded January 13, 1914 in Book 118 of Deeds, Page 271, Mendocino County Records.


3rd: Beginning at the intersection of the West boundary of the Northeast quarter of the Southeast quarter of Section 5, Township 21 North, Range 13 West, Mount Diablo Meridian with the centerline of the County Road between Dos Rios and Covelo; thence South along the West boundary of the Northeast quarter of the Southeast quarter of Section 5, Township 21 North, Range 13 West, Mount Diablo Meridian 580 feet to a point in the bed of Middle Eel River, thence East 135.5 feet, thence North 195.8 feet, thence East 29.5 feet; thence North 350 feet to the center of the County Road; thence North 78° 17' West along the centerline of said County Road 168.4 feet to the point of beginning, excepting therefrom so much as may be included in the right of way for said County Road, and being a portion of those lands conveyed to Homer A. Pickrell and Merle Pickrell by Deed recorded in Book 83 of Official Records, Page 108, Mendocino County Records, said property being a portion of the Northeast quarter of the Southeast quarter of Section 5, Township 21 North, Range 13 West, Mount Diablo Meridian.

All that certain real property situate in the County of Mendocino, State of California, described as follows:

PARCEL ONE:

Commencing at the Northeast corner of the Northwest quarter of the Southeast quarter of Section Five (5), Township Twenty-one (21) North, Range Thirteen (13) West, Mount Diablo Meridian; thence running South 248 feet to a point in the center of the Covelo-Dos Rios Road, said point in the center of road being the place of beginning; thence from said point of beginning South 760 feet to a point in the center of the Eel River "River Bed", thence North 46 degrees West 1160 feet, along said center line to a point; thence North 66 degrees - 20' West, 530 feet along said center to the Northwest corner of the Northwest quarter of the Southeast quarter of said Section 5; thence East 761 feet to a point in the center of the Covelo-Dos Rios Road; thence South 46 degrees East 86 feet along said center of road to a point; thence South 69 degrees East 535 feet to the place of beginning. Said above described parcel being in the Northwest quarter of the Southeast quarter of Section 5, Township 21 North, Range 13 West, Mount Diablo Meridian, and containing 10.9 acres more or less.

PARCEL TWO:

Beginning at the Northwest corner of the Northwest quarter of the Southeast quarter of Section Five (5), Township Twenty-one (21) North, Range Thirteen (13) West, and running North 355 feet along the West boundary of the Southwest quarter of the Northeast quarter of Section 5, to a point in the center of Covelo-Dos Rios Road; thence running along said center of road North 82 degrees East 148 feet to a point; thence South 78 degrees East along said center of road 287 feet to a point; thence South 46 degrees East along said center 464 feet to a point on the South boundary of the Southwest quarter of the Northeast quarter of Section 5; thence West along said boundary line 761 feet to the place of beginning. Said described parcel being in the Southwest quarter of the Northeast quarter of Section 5, Township 21 North, Range 13 West, Mount Diablo Meridian, and containing 4.7 acres more or less.

AP# 035-030-30
April 8, 2020

Eduardo Hernandez
Mendocino County
Planning Department
860 N Bush St.
Ukiah, CA 95482

Subject: Legal Authority and Consent for Wylatti Resource Management to file application for the "Stewart Bar Mining Project"

Dear Mr. Hernandez:

I own a portion of the property in Mendocino County on which Wylatti Resource Management ("Applicant") is proposing to develop the "Stewart Bar Mining Project." As landowner, I hereby provide legal authority and consent to the Applicant for filing of a Use Permit and Reclamation Plan application for the Project. I am aware that the proposed end use of the Property is riverine (gravel bar). This consent is provided with the understanding that the Applicant shall be responsible for all costs and liabilities associated with or arising from the filing and processing of this application.

The specific parcel we own that is subject to the application is as follows: Assessor Parcel Number: 035-030-49.

Sincerely,

[Signature]

Woody Heckeroth
51110 Covelo Road
Dos Rios, CA 95429

cc: Brian Hart, Wylatti
April 8, 2020

Eduardo Hernandez
Mendocino County
Planning Department
860 N Bush St.
Ukiah, CA 95482

Subject: Legal Authority and Consent for Wylatti Resource Management to file application for the "Stewart Bar Mining Project"

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The specific parcels we own that are subject to the application is as follows: Assessor Parcel Numbers: 035-030-05 and 035-030-17.

Sincerely,

[Signature]

Nira Stewart
51111 Covel Road
Dos Rios, CA 95429

cc: Brian Hurt, Wylatti
Morning Mel,

I enjoyed the site meet yesterday. I think the best way to accomplish the objectives is to first legitimize this existing paved and somewhat historic residential road approach, is to have the current property owner apply for a no fee Record Keeping Permit. That way Caltrans will have a Permitted road approach on record and will know who is responsible for the ownership, use and responsibility for maintenance of this existing approach. My evaluation yesterday showed that:

- This driveway is paved to a width of 12’ measured at the gate that is rarely ever closed.
- It has undersized flares and tapers but serves the purpose for a residential access.
- The grade of the driveway is about 5% negative from the fog line.
- Corner sight distance to the west exceeds 600’, to the east 450’.
- Prevailing speeds in this area of 55mph are estimated at between 35-45mph due to the configuration of the curves in the Hwy.

Once the Own, Operate & Maintain Encroachment Permit has been issued, it is my recommendation that Wylatti acts as an Agent for the property owners to secure a fee type ($492.00) traffic control (TK) Encroachment Permit to place appropriate warning devices consisting of temporary rag signs or long term hard construction signs and/or Changeable Message Boards during Wylatti’s activities. Wylatti’s use of this road approach is for the purpose of:

- Hauling gravel from the privately owned gravel bar in 10 wheel dump trucks out of this approach.
- Approximately 30 trips a day are planned, trucks would enter from the west and exit to the west. Turning movements would be “Right in and Left out”.
- The hauling duration would be for 30 to 45 days starting between June & July of 2020.
- The TK Encroachment Permit would be valid for the proposed duration in a given year.
- When applying for the TK Permit, please include your Men. Co. Use Permit Checklist and all supporting documents and proposed work plan.
- Wylatti would be responsible for any damage or maintenance on the driveway or driveway connection to the Hwy. due to the hauling activities.

I have attached a partially completed Encroachment Permit application for you to provide to the current property owner to get this project moving in the right direction. If you would like me to take a look at the application packages prior to them being sent to our Eureka office, I would be glad to. Encroachment Permit application packages need to be sent to:

Caltrans – Permits
P.O. Box 3700
Eureka, Ca. 95502
Give me a call when you have questions, Take Care,

Jim Shupe  
South Region Permit Inspector  
(707) 463-5722  
(707) 498-5174
1.1. **Geology Technical Memorandum**

The 30 by 60 minute Covelo quadrangle map\(^1\) was used in order to determine the major geologic formations in this area. The map shows that the site lies on top of a Central Franciscan Belt complex comprised of a Mélange matrix (mm) formation, which can date back to between the Tertiary and Upper Jurassic period. This formation is characterized as being a chaotic mixture of rocks held together by an argillite-matrix. The matrix can locally contain blocks of greenstone, radiolarian chert, blue schist, amphibolite, greywacke, limestone, serpentinite, and ultramafic rocks. According to the map, this area contains outcrops of greenstone.

According to the USDA Soil Survey Report\(^2,3\) the site is located in the Xerofluvents-Riverwash soil complex. The complex is comprised of 50 percent of the Xerofluvents soil and 35 percent Riverwash. The rest of the soil consists of minor constituents. Slopes in this region range from 0-2 percent and the landscape is characterized as “Flood Plains” for the Xerofluvents and “Channel” for the Riverwash. Both soil types originate from a parent material consisting of alluvium. Anecdotal accounts from managers of the Longvale Plant which processed gravel from this bar for asphalt concrete and other aggregate products indicate that the materials are hard and durable and contain little silt plus clay fraction (Klee, Pinches, personal communications).

The USGS, in cooperation with the California Department of Water Resources conducted intense studies of the watershed above Dos Rios on the Middle Fork Eel when a large reservoir was being planned for the Round Valley area in the 1960’s and early 1970’s. The bedload and suspended load was sampled over a period between 1956 and 1968 to predict the amount of sediment which would become trapped in the reservoir over a 100 year period. It was found that, at Dos Rios, approximately 43% clay and 34% silt was suspended load because of the natural turbulence flume caused by the narrow canyon upstream of Dos Rios, while 23% of the total load moved along as bedload consisting of sand, gravel and cobbles\(^4\). This explains why the deposited bedload is so clean and contains minimal amounts of silt and clay particles. Approximately half of the total sediment load arrives at the confluence of Black Butte Creek and the Middle Fork Eel River about 23 miles upstream and then travels on down to Dos Rios. This long transport distance accounts for the downstream reduction in particle size by attrition, disintegration by atmospheric weathering, and decomposition by chemical reaction (Reference 4), and provides an explanation for the durable sand and gravel materials found at the McKenzie Bar.

It was also found that a long-term average of 1,980,000 tons of suspended load plus bedload arrives at Dos Rios annually from the 745 square miles watershed area above it\(^4\). A thorough discussion of the

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cumulative impacts from gravel extraction has been provided in the Biological Assessment by Ross Taylor Associates in their study for a nearby project at the Rowland Bar about 1 mile downstream\(^5\). This study quoted information from Brown (Ref. 6) which shows that approximately 240,000 cubic yards of bedload is transported past the McKenzie Bar on an average year. The cumulative maximum extraction allowed by the permits at McKenzie Bar and the Rowland Bar approximately one mile downstream will be 70,000 cubic yards. Practical limitations of recruitment and bar configurations will limit maximum extractions to around 60,000 cubic yard based upon historical reporting. Even at 70,000 cubic yards extraction, the amount of bedload moving past the two bars is approximately 70% of the average annual amount. The NOAA guidelines for gravel extraction recommend that cumulative extraction should not exceed 50% of the coarse sediment passing through the system\(^6\).

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GHG Assessment

November 15, 2019

Jordan Main
Managing Partner
Compass Land Group
3140 Peacekeeper Way, Suite 102
McClellan, CA 95652

VIA E-Mail: jmain@compassland.net

SUBJECT: Stewarts Bar Gravel Bar Mining and Reclamation, Mendocino County, CA
GHG Emissions Assessment

Dear Jordan:

This letter presents the results of the greenhouse gas emissions modeling for the Stewarts Bar
mining and reclamation, along State Route 162 in Mendocino County, California.

Project Description

Seasonal gravel extraction and reclamation activities will take place on a gravel bar known as the
Stewart Bar located on the Middle Fork Eel River in Mendocino County, approximately one and
a half miles east of Dos Rios, CA off State Highway 162 (SH 162). The gravel bar is an open,
active bar without topsoil or significant amounts of vegetation. Extraction will occur on
approximately 3.5 acres of the bar, generally covering the western half of the exposed bar. Gravel
will be excavated and loaded into haul trucks for transport to an existing facility located near
Longvale, CA. Typically, as part of the extraction process, the bars will be skimmed above the
water level, in conformance with minimum grading standards, California Department of Fish and
Wildlife (CDFW), and National Marine Fisheries Service/National Oceanic and Atmospheric
Administration (NMFS/NOAA) conditions of approval. Prior to extraction, the access/haul road
will be improved for accessibility. Following extraction, reclamation will apply to this bar and the
associated access/haul road. Extraction and reclamation will take place for approximately 45 days
during the summer low-flow period between June 1st and October 30th.

Modeling Assumptions

The California Emissions Estimator Model Version 2016.3.2 (CalEEMod) was used to predict
GHG emissions from this activity. Inputs to the model to represent on-site activity included the
use of a Cat D6R tracked dozer estimated at 187 horsepower (hp), a Cat 3330 excavator estimated at 275 hp, and Heavy-Heavy Duty Truck (HHDT) that represents a water truck traveling on the site for 20 miles each day. Offsite activity included export by truck hauling (HHDT type) of 30,000 tons total of material and 6 daily worker trips. This activity was expected to occur over 9 hours each day for 45 days per year. The model was set to default conditions for Mendocino County – Rural North and included rural travel lengths for worker trips and truck hauling.

**Predicted Annual GHG Emissions**

CalEEMod predicted this activity, along with worker and haul truck trips (dump truck) to result in 152 metric tons of GHG emissions annually. Mendocino County Air Quality Management District has adopted thresholds based on emissions of GHG from projects that can be used by lead agencies to judge their significance. The District does not have construction-related emission thresholds but considers operational emissions to be significant if they exceed 1,100 metric tons annually\(^1\). Given that the proposed Reclamation Plan could occur annually, these emissions are compared to the District’s operational thresholds and found to be less than significant. Modeling output and assumptions are attached.

♦ ♦ ♦

This completes our GHG analyses. Please feel free to contact us should you have any questions or need further assistance.

Sincerely,

James A Reyff
Senior Consultant, Principal

(19-087)

\(^1\) The District adopted the Bay Area Air Quality Management District thresholds for greenhouse gases (GHG) - see [http://www.co.mendocino.ca.us/agmd/pdf_files/MCAQMDCEQARecomendations.pdf](http://www.co.mendocino.ca.us/agmd/pdf_files/MCAQMDCEQARecomendations.pdf)
Attachment

I&R Assumptions based on information below:

20,000cy @ 20cy/load = 2,000 annual HHDT truck trips.
30/day (60 trips) Max
44 total trips day average
Assume 30 mile distance
Assume 5 workers/day at 10 daily trips
Disturbed Areas:
0.33 mile dirt road (1,700ft)
3.5 acre extraction area
Equipment
Dozer D6R 189 hp
Excavator CAT330 275hp
Water Truck – assume off-road truck used four hours/day

Hi James,

See answers below

From: James Reyff <jreyff@illingworthrodkin.com>
Sent: Friday, November 15, 2019 9:12 AM
To: Jordan Main <jmain@compassland.net>; Michael S. Thill <mthill@illingworthrodkin.com>
Cc: Angela Machado <amachado@illingworthrodkin.com>
Subject: RE: Stewart Bar - Project Overview

Hi Jordan,

We have the information we need to conduct this assessment. A few questions (if you don’t have answers – we’ll make assumptions)

1. Do you know the average haul trip length (in miles) for the material? The Longvale facility is ~14 miles (one-way) from the Stewart Bar
2. Do you know the model and model year for the equipment (dozer and excavator) Dozer - CAT D6R, Excavator – CAT 330, Water Truck – Unk. (years unknown, but I can chase down if critical)
3. Average hours per day the equipment would operate (we’ll assume 8 unless different) – Let’s use 9
4. Number of workers per day - 3

Thanks,
-James

James A. Reyff
Illingworth & Rodkin, Inc.
(T) 707.794.0400 x106
429 E. Cotati Ave
Cotati, CA 94931
5/14/19

Hi Michael,

Please see summary below of the key project details for the proposed Stewart Bar mining/reclamation project in Mendocino County:

1. Project Description: seasonal gravel extraction and reclamation activities on a gravel bar known as the Stewart Bar located on the Middle Fork Eel River in Mendocino County. Gravel will be excavated using conventional construction equipment and loaded into haul trucks for transport to an existing facility located off Hwy. 162 near Longvale. Only extraction, loading, and haul out to occur, with no processing onsite.
2. Equipment: Dozer (D6R), 330 excavator, and a water truck for dust suppression
3. Type of Extraction: traditional skim
4. Times of day for extraction and load out/hauling: 7am to 5pm, Monday – Friday
5. Months of Year: June 1 – October 30 (summer low-flow)
6. No. of Days per Year: 45
7. Estimated # haul trucks: 3 per hour, 30 per day
8. Truck Route: All incoming trucks to enter off Hwy. 162 from west, and all outgoing trucks to exit onto Hwy. 162 with left hand turn going west
9. Extraction Area: ~250’ wide x 600’ long (~3.5 ac) generally covering the western half of the exposed bar.
10. Annual Extraction quantity: 20k cubic yards, 30k tons
11. Nearest residences: resident owner located ~500’ north of the gravel bar, two residences located north of Hwy. 162 (~1,000’ from extraction area). All separated by large elevation difference from gravel bar.

See attached Google Earth Pin for location.

Please let me know when you will perform the work. Feel free to contact me to discuss.

Thanks!

Jordan

Jordan Main
Managing Partner
Cell: 408.210.5929
1.0 Project Characteristics

1.1 Land Usage

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1.2 Other Project Characteristics

- **Urbanization**: Rural
- **Wind Speed (m/s)**: 2.2
- **Precipitation Freq (Days)**: 86
- **Climate Zone**: 3
- **Utility Company**: Pacific Gas & Electric Company
- **CO2 Intensity** (lb/MWhr): 290
- **CH4 Intensity** (lb/MWhr): 0.029
- **N2O Intensity** (lb/MWhr): 0.006

1.3 User Entered Comments & Non-Default Data

- **Project Characteristics - Off-road operations only**
- **Land Use - Gravel mining**
- **Construction Phase - 45 days**
- **Off-road Equipment - Dozer D6r = 189hp, Excavator CAT330 = 275hp**
- **Grading - Based on 20,000cy / 30,000 tons**
- **Trips and VMT - 3 workers per day added vendor trip for water truck at 20mi/day**
- **On-road Fugitive Dust - Estimate 90% on paved. Water truck keeps 12% moist**

Vehicle Trips -

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2.0 Emissions Summary

2.1 Overall Construction

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<th>Exhaust PM2.5</th>
<th>PM2.5 Total</th>
<th>Bio-CO2</th>
<th>NBio-CO2</th>
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Mitigated Construction

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3.0 Construction Detail

Construction Phase

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25.31

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

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### 3.1 Mitigation Measures Construction

#### 3.2 Grading - 2020

**Unmitigated Construction On-Site**

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<th>PM2.5 Total</th>
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**Unmitigated Construction Off-Site**

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**Mitigated Construction On-Site**

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<th>Exhaust PM10</th>
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<th>Exhaust PM2.5</th>
<th>PM2.5 Total</th>
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<td>Total</td>
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**Mitigated Construction Off-Site**
<table>
<thead>
<tr>
<th>Category</th>
<th>ROG</th>
<th>NOx</th>
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<th>SO2</th>
<th>Fugitive PM10</th>
<th>Exhaust PM10</th>
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<td>116.3107</td>
</tr>
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STEWART BAR GRAVEL EXTRACTION AND RECLAMATION PROJECT
NOISE AND VIBRATION ASSESSMENT

Mendocino County, California

May 23, 2019

Prepared for:

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Project: 19-087
INTRODUCTION

Grist Creek Aggregates, LLC is proposing seasonal gravel extraction on a gravel bar known as Stewart Bar located on the Middle Fork Eel River in Mendocino County. The site is approximately 1.5 miles east of Dos Rios, California off State Route 162 (SR 162). The gravel bar is an open, active bar without topsoil or significant amounts of vegetation. Extraction will occur on approximately 3.5 acres of the bar, generally covering the western half of the exposed bar. Gravel will be excavated and loaded into haul trucks for transport to an existing processing facility located near Longvale, California. Following extraction, reclamation will apply to this bar and part of the associated access road to leave it shaped in a configuration satisfactory to California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service/National Oceanic and Atmospheric Administration (NMFS/NOAA) conditions of approval. Extraction and reclamation will take place for approximately 45 days during the summer low-flow period between June 1st and October 30th. Road repair will take up to three days prior to extraction for the first year and one day for subsequent years, while reclamation of the gravel bar will take place for approximately one day after extraction is completed.

This report evaluates the project’s potential to result in significant noise and vibration impacts with respect to applicable California Environmental Quality Act (CEQA) guidelines. The report is divided into two sections: 1) the Setting Section provides a brief description of the fundamentals of environmental noise, summarizes applicable regulatory criteria, and discusses the results of the ambient noise monitoring survey completed to document existing noise conditions; and, 2) the Impacts and Mitigation Measures Section describes the significance criteria used to evaluate project impacts, provides a discussion of each project impact, and presents mitigation measures, where necessary, to provide a compatible project in relation to adjacent land uses.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its pitch or its loudness. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A decibel (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in
acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA)*. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound/noise descriptor* is called $L_{eq}$. The most common averaging period is hourly, but $L_{eq}$ can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the *sound level meter*. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level (CNEL)* is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 p.m. - 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The *Day/Night Average Sound Level ($L_{dn}$)* is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decibel, dB</td>
<td>A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.</td>
</tr>
<tr>
<td>Sound Pressure Level</td>
<td>Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.</td>
</tr>
<tr>
<td>Frequency, Hz</td>
<td>The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.</td>
</tr>
<tr>
<td>A-Weighted Sound Level, dBA</td>
<td>The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.</td>
</tr>
<tr>
<td>Equivalent Noise Level, Leq</td>
<td>The average A-weighted noise level during the measurement period.</td>
</tr>
<tr>
<td>Lmax, Lmin</td>
<td>The maximum and minimum A-weighted noise level during the measurement period.</td>
</tr>
<tr>
<td>L01, L10, L50, L90</td>
<td>The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.</td>
</tr>
<tr>
<td>Day/Night Noise Level, Ldn or DNL</td>
<td>The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 p.m. and 7:00 a.m.</td>
</tr>
<tr>
<td>Community Noise Equivalent Level, CNEL</td>
<td>The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels measured in the night between 10:00 p.m. and 7:00 a.m.</td>
</tr>
<tr>
<td>Ambient Noise Level</td>
<td>The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.</td>
</tr>
<tr>
<td>Intrusive</td>
<td>That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.</td>
</tr>
</tbody>
</table>

### TABLE 2  Typical Noise Levels in the Environment

<table>
<thead>
<tr>
<th>Common Outdoor Activities</th>
<th>Noise Level (dBA)</th>
<th>Common Indoor Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jet fly-over at 1,000 feet</td>
<td>110 dBA</td>
<td>Rock band</td>
</tr>
<tr>
<td>Gas lawn mower at 3 feet</td>
<td>100 dBA</td>
<td></td>
</tr>
<tr>
<td>Diesel truck at 50 feet at 50 mph</td>
<td>90 dBA</td>
<td></td>
</tr>
<tr>
<td>Noisy urban area, daytime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas lawn mower, 100 feet in Commercial area</td>
<td>80 dBA</td>
<td></td>
</tr>
<tr>
<td>Heavy traffic at 300 feet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quiet urban daytime</td>
<td>70 dBA</td>
<td>Food blender at 3 feet</td>
</tr>
<tr>
<td>Quiet urban nighttime</td>
<td>60 dBA</td>
<td>Garbage disposal at 3 feet</td>
</tr>
<tr>
<td>Quiet suburban nighttime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quiet rural nighttime</td>
<td>50 dBA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40 dBA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 dBA</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>10 dBA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 dBA</td>
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</tr>
</tbody>
</table>

Source: Technical Noise Supplement (TeNS), California Department of Transportation, September 2013.
Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous or frequent intermittent vibration levels produce. The guidelines in Table 3 represent syntheses of vibration criteria for human response and potential damage to buildings resulting from construction vibration.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to cause damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as paint flaking or minimal extension of cracks in building surfaces; minor, including limited surface cracking; or major, that may threaten the structural integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher. The damage criteria presented in Table 3 include several categories for ancient, fragile, and historic structures, the types of structures most at risk to damage. Most buildings are included within the categories ranging from “Historic and some old buildings” to “Modern industrial/commercial buildings”. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.
TABLE 3  Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

<table>
<thead>
<tr>
<th>Velocity Level, PPV (in/sec)</th>
<th>Human Reaction</th>
<th>Effect on Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01</td>
<td>Barely perceptible</td>
<td>No effect</td>
</tr>
<tr>
<td>0.04</td>
<td>Distinctly perceptible</td>
<td>Vibration unlikely to cause damage of any type to any structure</td>
</tr>
<tr>
<td>0.08</td>
<td>Distinctly perceptible to strongly perceptible</td>
<td>Recommended upper level of the vibration to which ruins and ancient monuments should be subjected</td>
</tr>
<tr>
<td>0.1</td>
<td>Strongly perceptible</td>
<td>Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings</td>
</tr>
<tr>
<td>0.25</td>
<td>Strongly perceptible to severe</td>
<td>Threshold at which there is a risk of damage to historic and some old buildings.</td>
</tr>
<tr>
<td>0.3</td>
<td>Strongly perceptible to severe</td>
<td>Threshold at which there is a risk of damage to older residential structures</td>
</tr>
<tr>
<td>0.5</td>
<td>Severe - Vibrations considered unpleasant</td>
<td>Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures</td>
</tr>
</tbody>
</table>


Regulatory Background

The State of California and County of Mendocino have established regulatory criteria that are applicable in this assessment. The State CEQA Guidelines, Appendix G, are used to assess the potential significance of impacts pursuant to applicable local standards. A summary of the applicable regulatory criteria is provided below.

State CEQA Guidelines. The California Environmental Quality Act (CEQA) contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Under CEQA, noise impacts would be considered significant if the project would result in:

(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, if the project would expose people residing or working in the project area to excessive noise levels.
Checklist items (a) and (b) are applicable to the proposed project. The project is not located within two miles of a public airport or in the vicinity of a private airstrip and would not expose people residing or working in the project area to excessive aircraft noise levels; therefore, item (c) is not carried further in this analysis.

**Mendocino County Surface Mining and Reclamation Zoning Ordinance.** Chapter 22.16, Section 22.16.070 establishes exterior noise limit standards for surface mining activities:

In addition to meeting the minimum acceptable surface mining and reclamation practices in the Act and policy guidelines, each surface mining operation requiring a permit shall be conducted and designed to meet the following operational standards. Conditions may be imposed on mining permits to ensure compliance with minimum acceptable practices and standards.

(J) Noise levels created by the operation as measured at the nearest residence other than that of the mine owner or operator shall not exceed the following:

1. Sixty-five (65) dB(A) for a cumulative period more than thirty (30) minutes in any hour;
2. Seventy (70) dB(A) for a cumulative period more than twelve (12) minutes in any hour;
3. Seventy-five (75) dB(A) for a cumulative period more than three (3) minutes in any hour;
4. Eighty (80) dB(A) for a cumulative period more than one (1) minute in any hour;
5. Eighty-five (85) dB(A) at any moment.
6. More stringent noise standards may be required as permit conditions when particular local circumstances warrant additional protection of potentially affected residences.

Any noise control measures prescribed by the lead agency as a condition of a permit shall in no manner be interpreted as to preclude the application to the surface mining site of future noise control measures adopted by the County subsequent to the granting of the permit.

**Existing Noise Environment**

Stewart Bar is located in northern Mendocino County approximately 1.5 miles east of Dos Rios, California. The project site includes 3.5 acres of the western half of the exposed bar with an access road that connects the gravel bar to SR 162. Excavated gravel will be hauled to an existing facility 14 miles south on SR 162. The nearest offsite residences are located approximately 900 to 1,100 feet north of the proposed mining and reclamation activities. Noise measurements were made to assess ambient noise levels at residential receptors located in the site vicinity on May 17, 2019, as
shown in Figure 1. The noise environment at the site results primarily from vehicle traffic along SR 162 and natural noises from the Middle Fork Eel River.

**FIGURE 1 Noise Monitoring and Receptor Locations**

Short-term noise measurement site ST-1 was made to the northwest of the residence at Stewart Bar. This measurement was taken approximately 70 feet from the residence, 100 feet from the centerline of SR 162, and 640 feet from the center of the proposed extraction site at Stewart Bar. This site was chosen to represent the ambient noise levels near the intersection of SR 162 and the access road to Stewart Bar. Maximum instantaneous noise levels from vehicle traffic reached 62 dBA $L_{max}$ and the average noise level was 49 dBA $L_{eq}$.

Short-term noise measurement site ST-2 was made south of the existing residence, approximately 205 feet from the centerline of SR 162, and 510 feet from the center of the proposed extraction site at Stewart Bar. This site was chosen to measure the ambient noise levels near the existing residence within a direct line-of-sight of Stewart Bar. Maximum instantaneous noise levels from vehicle traffic reached 58 dBA $L_{max}$ and the average noise level was 55 dBA $L_{eq}$. Ambient noise levels at this site were higher than ST-1 and ST-3 since this site was in direct line-of-sight to Stewart Bar and the Middle Fork Eel River. Heavy rain occurred in the two days prior to measurements and the river was much louder than typical for this time of year. As the summer progresses, river flow will decrease, and ambient levels are projected to decrease to levels more consistent with ST-1 and ST-3.
Short-term noise measurement ST-3 was made to the east of the existing residence, approximately 70 feet from the SR 162 centerline. This site was chosen to measure ambient noise levels along SR 162 at the approximate setback of the residence to the northeast, and to calculate ambient noise levels at the setback of the residence to the northwest. The ambient noise environment at this location was predominantly the result of intermittent local traffic on SR 162. Maximum instantaneous noise levels from vehicle traffic reached 58 dBA $L_{\text{max}}$ and the average noise level was 45 dBA $L_{\text{eq}}$ during the mid-day measurement period. These measurements were likely impacted by altered traffic patterns because of temporary highway construction approximately 1,000 feet west on SR 162. A temporary traffic light was in place and alternated between direction of traffic approximately every five minutes. Therefore, vehicle traffic wasn’t as frequent as under normal conditions, and vehicles passing by were traveling slower than they would be without the traffic light in place. As a result, ambient noise levels at this location are likely lower than they would be without the traffic light.

Short-term noise measurement ST-4 was made near mile marker 12.57, approximately 40 feet from the SR 162 centerline. This site was chosen to measure ambient noise levels along SR 162 in between Stewart Bar and the gravel processing site further down SR 162, without the influence of the temporary traffic light. Two consecutive 10-minute noise measurements were made during the middle of the day. Maximum instantaneous noise levels from vehicle traffic reached 75 dBA $L_{\text{max}}$ and the average noise level for both measurements was 60 dBA $L_{\text{eq}}$.

The residence across SR 162 to the northeast will be shielded from gravel extraction and reclamation by the steep hill just north of the gravel bar, (Figure 2). The residence across SR 162 to the northwest will be in direct line-of-sight to operations at the gravel bar.
FIGURE 2  Topographic Map of the Site and Receptor Locations

NOISE IMPACTS AND MITIGATION MEASURES

This section describes the significance criteria used to evaluate project impacts under CEQA, provides a discussion of each project impact, and presents mitigation measures, where necessary, to provide a compatible project in relation to adjacent noise sources and land uses.

Significance Criteria

The following criteria were used to evaluate the significance of environmental noise and vibration resulting from the project:

1. **Temporary or Permanent Noise Increases in Excess of Established Standards.** A significant impact would be identified if project operations would result in a substantial temporary or permanent increase in ambient noise levels at sensitive receivers in excess of the local noise standards, as follows:

   - **Operational Noise in Excess of Standards.** Surface Mining and Reclamation Zoning Ordinance Noise Limits are used as significance criteria for project operations. Noise levels created by the operation as measured at the nearest residence other than that of the mine owner or operator shall not exceed the following:

     1. Sixty-five (65) dB(A) for a cumulative period more than thirty (30) minutes in any hour;
     2. Seventy (70) dB(A) for a cumulative period more than twelve (12) minutes in any hour;
     3. Seventy-five (75) dB(A) for a cumulative period more than three (3) minutes in any hour;
     4. Eighty (80) dB(A) for a cumulative period more than one (1) minute in any hour;
     5. Eighty-five (85) dB(A) at any moment.
     6. More stringent noise standards may be required as permit conditions when particular local circumstances warrant additional protection of potentially affected residences.

   - **Traffic Noise Increase.** A significant impact would be identified if traffic noise generated by the project would substantially increase noise levels at sensitive receivers in the vicinity. A substantial increase would occur if: a) the noise level increase is 5 dBA $L_{dn}$ or greater, with a future noise level of less than 60 dBA $L_{dn}$, or b) the noise level increase is 3 dBA $L_{dn}$ or greater, with a future noise level of 60 dBA $L_{dn}$ or greater.
2. **Generation of Excessive Groundborne Vibration.** A significant impact would be identified if the project would generate excessive vibration levels. Groundborne vibration levels exceeding 0.3 in/sec PPV would be considered excessive as such levels would have the potential to result in cosmetic damage to buildings.

**Impact 1: Temporary or Permanent Noise Increases in Excess of Established Standards.** Project operations, and traffic would not generate noise levels that exceed the applicable noise thresholds or result in a substantial temporary or permanent noise level increase at existing noise-sensitive land uses in the project vicinity. **This is a less-than-significant impact.**

**Permanent Noise Increases from On-Site Operational Noise**

Noise generated by gravel extraction and reclamation activities would be a function of the noise levels generated by individual pieces of construction equipment, the type and amount of equipment operating at any given time, the timing and duration of activities, the proximity of nearby sensitive land uses, and the presence or lack of shielding at these sensitive land uses. Gravel extraction and reclamation noise would primarily result from the operation of construction equipment and the arrival and departure of haul trucks. FHWA’s Roadway Construction Noise Model (RCNM) was used to calculate noise levels of road repair, gravel extraction, and reclamation using the construction equipment data provided by the project applicant.

Construction-equipment generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor; therefore, noise levels calculated at 100 feet would be about 6 dBA less and 12 dBA less at 200 feet. Shielding provided by terrain would result in even lower construction noise levels at receptors to the northeast. For the purpose of following Mendocino County’s designation of L₅₀ as the regulatory acoustical descriptor, Lₑq levels calculated by FHWA’s RCNM were conservatively assumed to equal the L₅₀, given that the noise sources are fairly continuous during the operation of heavy equipment. The Lₑq noise level is always equal to or greater than the L₅₀ noise level.

Repair on the access road to Stewart Bar will take up to three days prior to gravel extraction in the first year, and one day prior to gravel extraction in subsequent years. A dozer and excavator are anticipated for this type of construction. The operation of this equipment is calculated to generate hourly average noise levels of 80 dBA L₅₀ at a distance of 50 feet. Maximum instantaneous noise levels would reach 82 dBA Lₘₐₓ at 50 feet. Predicted noise levels associated with access road repair are summarized in Table 4.

Gravel extraction will include skimming gravel from Stewart Bar using a dozer (Cat D6R), an excavator (Cat 330), haul trucks, and a water truck for dust suppression. Reclamation will include one day of final grading of the shallow alcove after extraction takes place using a small dozer and excavator. The operation of this equipment is calculated to generate hourly average noise levels up to 81 dBA L₅₀ at 50 feet. Maximum instantaneous noise levels would reach 82 dBA Lₘₐₓ at 50 feet.
feet. Predicted noise levels associated with gravel extraction and reclamation are summarized in Table 5.

### TABLE 4  Summary of Noise Levels from Access Road Repair

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Distance from Source</th>
<th>Predicted L&lt;sub&gt;max&lt;/sub&gt;</th>
<th>Predicted L&lt;sub&gt;50&lt;/sub&gt;</th>
<th>Predicted L&lt;sub&gt;dn*&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast Residence</td>
<td>450-900 feet</td>
<td>52-60</td>
<td>50-58</td>
<td>46-54</td>
</tr>
<tr>
<td>Northwest Residence</td>
<td>410-1,100 feet</td>
<td>56-64</td>
<td>54-62</td>
<td>50-58</td>
</tr>
</tbody>
</table>

### TABLE 5  Summary of Noise Levels from Gravel Extraction and Reclamation

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Distance from Source</th>
<th>Predicted L&lt;sub&gt;max&lt;/sub&gt;</th>
<th>Predicted L&lt;sub&gt;50&lt;/sub&gt;</th>
<th>Predicted L&lt;sub&gt;dn*&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast Residence</td>
<td>900 feet</td>
<td>52</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>Northwest Residence</td>
<td>1,100 feet</td>
<td>56</td>
<td>54</td>
<td>50</td>
</tr>
</tbody>
</table>

*L<sub>dn</sub>* was calculated assuming a 10-hour workday from 7:00 a.m. to 5:00 p.m.

Noise levels from access road repair may reach up to 62 dBA L<sub>50</sub> for several hours at portions where the access road is nearest to neighboring residences. However, the majority of access road repair will occur at further distances and will produce noise levels between 50 and 62 dBA L<sub>50</sub>. Since gravel extraction and reclamation operations would occur at a distance of 900 to 1,100 feet from the neighboring residents, noise levels would not be anticipated to exceed the 65 dBA L<sub>50</sub> and 85 dBA L<sub>max</sub> thresholds established by the County at neighboring property lines. Therefore, the temporary increase in ambient noise levels resulting from road repair, gravel extraction, and reclamation operations would have a less-than-significant impact and would not require mitigation. This is a less-than-significant impact.

### Permanent Noise Increases from Project Traffic

Traffic noise levels between Stewart Bar and the processing facility near Longvale, California were calculated with FHWA’s Traffic Noise Model (TNM v.2.5). The roadway and receptor locations were input into the traffic noise model in a three-dimensional reference coordinate system. The geometrical input was based on a linear stretch of SR 162 with receptors located at a setback of 50 feet from the centerline. Roadway traffic volumes, including the vehicle mix ratio, estimated number of haul trucks per hour, and traffic speeds were also input into the model. This model was calibrated based on short-term measurement ST-4 and associated traffic counts taken near mile marker 12.57.

There will be an estimated number of 30 haul trucks transporting gravel between Stewart Bar and the processing facility near Longvale, California while gravel extraction is taking place. This would be limited to approximately 45 days of operation during the summer months. Based on the FHWA’s TNM 2.5 output and site measurements taken along SR 162, traffic noise is anticipated
to increase by 1-2 dBA L_{eq} over the course of the 45-day span. Generally, a difference of 3 dBA is just detectable to the human ear and would be considered significant. The additional truck traffic resulting from the project would not substantially increase existing traffic noise levels along SR 162, and the temporary increase in noise levels associated with haul trucks along SR 162 would have a less-than-significant impact on traffic noise levels in the area.

**Mitigation Measure 1:** None required.

**Impact 2:** Generation of Excessive Groundborne Vibration due to Construction. Construction-related vibration levels would not exceed 0.3 in/sec PPV at the nearest structures. **This is a less-than-significant impact.**

The County of Mendocino does not specify a vibration limit that should not be exceeded at sensitive receptors. For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards and 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.25 in/sec PPV for historic and some old buildings (see Table 3). Heavy equipment would have the potential to produce vibration levels of up to 0.27 in/sec PPV within 20 feet of the heavy equipment while in operation. During repair of the access road, heavy equipment will be at a distance greater than 300 feet from the nearest off-site structure. At this distance, vibration levels would be 0.01 in/sec PPV or less and would have a less-than-significant impact on existing structures or persons in the project vicinity.

**Mitigation Measure 2:** None required.
April 20, 2020

Compass Land Group
3140 Peacekeeper Way, Suite 102
McClellan, CA 95652

Re: Biological Resources Memorandum for the Updated Project Boundary of the Stewart Bar Mining Project

In May 2019, Gallaway Enterprises initiated technical biological studies for the Stewart Bar Mining Project located in Mendocino County, California. Biological surveys were conducted by Gallaway Enterprises staff on May 30, 2019. Biologist Brittany Reaves conducted a wildlife habitat assessment and Senior Botanist Elena Gregg conducted a botanical habitat assessment and protocol-level rare plant survey within the original Biological Survey Area (BSA) for the project (Figure 1: May 2019 Biological Survey Area Map). A Biological Resource Assessment (BRA) was prepared in June 2019.

Since the time of the writing of the BRA for the Stewart Bar Mining Project, Compass Land Group has incorporated the full extent of Stewart Bar into their project boundary, which includes an additional 1.6 acres of gravel bar (Figure 2: Current Biological Survey Map).

The additional acreage being added to the BSA consists solely of barren gravel bar that is classified as the barren habitat type as described in the June 2019 BSA.

**Special-status Botanical Species**

Stewart Bar itself, including the new additional acreage, is comprised entirely of barren gravel and does not contain suitable habitat for special-status botanical species. The protocol-level rare plant survey conducted in 2019 focused on the margins of the access road and streambank area within the BSA and no special-status botanical species were observed.

**Special-status Wildlife Species**

The new, eastern portion of the Stewart Bar included in the updated BSA is a continuation of the same barren habitat type that was evaluated in 2019 and contains the same potential for special-status wildlife previously identified in the June 2019 BRA.
Stewart Bar Mining Project
May 2019 Biological Survey Area
Figure 1

Data Sources: ESRI, Compass Land Group, Google Earth 8/12/2017
Stewart Bar Mining Project
Current Biological Survey Area
Figure 2

Access Rd
Covelo Rd

Biological Survey Area - (5.3 acres)

Data Sources: ESRI, Compass
Land Group, Google Earth 8/12/2017
Northern California (NC) Distinct Population Segment (DPS) steelhead (Oncorhynchus mykiss)
Northern California DPS steelhead individuals may migrate past the BSA during the proposed construction period, but will not occur within the BSA as construction will only occur when the BSA is dry. The results, conclusions, and recommendations for NC DPS steelhead remain the same.

California Coastal (CC) Evolutionarily Significant Unit (ESU) Chinook salmon (Oncorhynchus tshawytscha)
California Coastal ESU Chinook salmon individuals may migrate past the BSA during proposed the construction period, but will not occur within the BSA as construction will only occur when the BSA is dry. The results, conclusions, and recommendations for CC ESU Chinook salmon remain the same.

Foothill Yellow-Legged Frog (FLYF, Rana boylii), Northwest/North Coast Clade
Due to lack of canopy cover, lack of observations during the habitat assessment, and absence of water within the BSA, there is no potential for FYLF to occur within the BSA during the proposed construction period.

In the time since the June 2019 BRA was prepared, the California Department of Fish and Wildlife has found that the Northwest/North Coast Clade of FLYF does not warrant listing at this time. The FYLF Northwest/North Coast Clade remains a State Species of Special Concern; as such, the proposed avoidance and recommendation measures are updated as follows:

- Construction within Middle Fork Eel River shall commence when there is no flowing or ponded water within the BSA and shall conclude before the river begins to flow through the BSA again the following fall/winter.

- If flowing or ponded water is present within the BSA, qualified biologist shall conduct a pre-construction survey immediately prior to the start of construction to determine the absence/presence of FYLF. If FYLF are found within the Project site, they shall be relocated to nearby suitable habitat by a qualified biologist.

- Only wildlife-friendly, 100-percent biodegradable erosion control products that will not entrap or harm wildlife shall be used. Erosion control products shall not contain synthetic (e.g. plastic or nylon) netting. Photodegradable synthetic products are not considered biodegradable.

Western Pond Turtle (Emys marmorata)
As western pond turtles are known to bask on banks and woody debris, such as logs, along the sides of perennial aquatic features like the Middle Fork Eel River, there is moderate potential for western pond turtle to occur within the BSA. The results, conclusions, and recommendations for western pond turtle remain the same.

Conclusion
The addition of the eastern portion of Stewart Bar to the BSA does not change the results of the June 2019 BRA prepared for the Stewart Bar Mining Project. With the exception of the updated avoidance
and minimization measures for FYLF to account for their change in status listing, all conclusions and recommendations remain the same.

If you have any questions, please do not hesitate to contact Kevin Sevier at (530) 332-9909 or kevin@gallawayenterprises.com.

Brittany Reaves
Biologist

Attached: Stewart Bar Mining Project Biological Resources Assessment, June 2019
BIOLOGICAL RESOURCE ASSESSMENT
Terrestrial and Aquatic Wildlife and Botanical Resources

Stewart Bar Mining Project
Mendocino County, California
June 2019

Prepared for:
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McClellan, CA 95652

Prepared by:
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Chico CA 95928
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Contact: Kevin Sevier
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Appendix B .................................................................................. Observed Plant Species List
Appendix C .................................................................................. Project Site Photos
INTRODUCTION

Purpose and Overview

The purpose of this biological resource assessment (BRA) is to document the endangered, threatened, sensitive, and rare species and their habitats that occur or may occur in the biological survey area (BSA) of the Stewart Bar Mining Project (Project) area located on the Middle Fork Eel River in Mendocino County, California (Figure 1). The Project area is located off of Highway 162, just southeast of the unincorporated community of Dos Rios. The Project area is approximately 3.7 acres.

The BSA is the area where biological surveys are conducted (Figure 2). Gallaway Enterprises conducted biological and botanical habitat assessments in the BSA to evaluate site conditions and potential for biological and botanical species to occur. Other primary references consulted include species lists and information gathered using United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPAC), California Department of Fish and Wildlife’s (CDFW) Natural Diversity Database (CNDDB), the California Native Plant Society’s (CNPS) list of rare and endangered plants, and literature review. The results of the BRA are the findings of habitat assessments and surveys and recommendations for avoidance and minimization measures.

Project Location and Environmental Setting

The BSA is located approximately 7 miles southwest of the census-designated place Covelo and about a mile southeast of the unincorporated community Dos Rios. The BSA falls within Section 5, Township 21N, Range 13W; latitude 39.705345, longitude -123.328395. The surrounding area consists of the Mendocino National Forest. The BSA is comprised of a gravel bar on the Middle Fork Eel River and the existing access road. The gravel bar is located within the Middle Fork Eel River, but is generally dry and exposed during the summer months. During periods of high flows during the winter and early spring, water may flow through the BSA. There is a residential home and several associated outbuildings located at a higher elevation just north of the BSA. Immediately south of the BSA is the Middle Fork Eel River, and beyond that is the Mendocino National Forest. The overall topography of the BSA where gravel extraction will take place is relatively flat; the access road from Highway 162 to the Middle Fork Eel River is located on hilly terrain with a steep drop in elevation to river access. The access road from Highway 162 is at approximately 1033 feet in elevation, and the BSA within the Middle Fork Eel River...
Stewart Bar Mining Project
Biological Survey Area
Figure 2

Biological Survey Area - 3.7 acres

Data Sources: ESRI, Compass
Land Group, DigitalGlobe 10/06/17

GEP: #19-068   Map Date: 06/17/19
where extraction will occur is located at approximately 909 feet in elevation. The access road is surrounded by mixed oak-foothill pine woodlands, interspersed with annual grassland and manzanita. The gravel bar itself is barren, with little to no vegetation present.

Soils within the BSA are Xerofluvents-Riverwash complex, 0 to 2 percent slopes; gravelly, sandy loams with a deep restrictive layer of more than 80 inches in depth. The average annual precipitation for the area is 41.66 inches and the average temperature is 55.8° F (Western Regional Climate Center 2019). A Mediterranean warm summer occurs in an oval-shaped area encompassing the Eel River from Island Mountain to Fort Seward and in a circular area containing Covelo and the lower portion of the Middle Fork Eel River. This climate zone is similar to that found over most of the Sacramento and San Joaquin Valleys, but with a greater amount of winter precipitation (Kubicek 1977 cited in Yoshiyama and Moyle 2010).

**Project Description**

The proposed Project consists of seasonal gravel extraction and reclamation activities on a gravel bar known as the Stewart Bar located on the Middle Fork Eel River in Mendocino County. Gravel will be excavated using conventional construction equipment and loaded into haul trucks for transport to an existing facility located off Highway 162 near Longvale. Only extraction, loading, and haul-out will occur, with no processing onsite. Project activities will be timed during the summer low-flow season, from June 1 through October 30. There is no vegetation removal anticipated as part of Project activities.

**METHODS**

**References Consulted**

Gallaway Enterprises obtained lists of special-status species that occur in the vicinity of the BSA. The CNDDDB Geographic Information System (GIS) database was also consulted and showed special-status species within a 5-mile radius of the BSA (Figure 3). Other primary sources of information regarding the occurrence of federally listed threatened, endangered, proposed, and candidate species and their habitats within the BSA used in the preparation of this BRA are:

- The USFWS IPaC Official Species List for the Project area, June 4, 2019, Consultation Code 08EACT00-2019-SLI-0359 (Appendix A; Species Lists);
- The results of a species record search of the CDFW CNDDDB, RareFind 5, for the 7.5 minute United States Geological Survey (USGS) “Dos Rios,” “Laytonville,” “Iron Peak,” and “Covelo West” quadrangles (Appendix A; Species Lists);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS “Dos Rios,” “Laytonville,” “Iron Peak,” and “Covelo West” quadrangles (Appendix A; Species Lists);
- USFWS Critical Habitat Portal, May 23, 2019; and
- Results from the habitat assessment conducted by Gallaway Enterprises on May 30, 2019 (Appendix B; Observed Species List).
Stewart Bar Mining Project
CNDDB Occurrences and Critical Habitat
Figure 3
Special-Status Species

Special-status species that have potential to occur in the BSA are those that fall into one of the following categories:

- Listed as threatened or endangered, or are proposed or candidates for listing under the California Endangered Species Act (CESA, 14 California Code of Regulations 670.5) or the Federal Endangered Species Act (ESA, 50 Code of Federal Regulations 17.12);
- Listed as a Species of Special Concern (SSC) by CDFW or protected under the California Fish and Game Code (CFGC) (i.e. Fully Protected Species);
- Ranked by the CNPS as 1A, 1B, or 2;
- Protected under the Migratory Bird Treaty Act (MBTA);
- Protected under the Bald and Golden Eagle Protection Act; or
- Species that are otherwise protected under policies or ordinances at the local or regional level as required by the California Environmental Quality Act (CEQA, §15380).

Critical Habitat

The ESA requires that critical habitat be designated for all species listed under the ESA. Critical habitat is designated for areas that provide essential habitat elements that enable a species survival and which are occupied by the species during the species listing under the ESA. Areas outside of the species range of occupancy during the time of its listing can also be determined as critical habitat if the agency decides that the area is essential to the conservation of the species.

The USFWS Critical Habitat Portal was accessed on May 23, 2019 to determine if critical habitat occurs within the BSA. Appropriate Federal Registers were also used to confirm the presence or absence of critical habitat.

Sensitive Natural Communities

Sensitive Natural Communities (SNCs) are monitored by CDFW with the goal of preserving these areas of habitat that are rare or ecologically important. Many SNCs are designated as such because they represent a historical landscape and are typically preserved as valued components of California’s diverse habitat assemblage.

Habitat Assessments

Habitat assessments were conducted by Gallaway Enterprises staff on May 30, 2019. A wildlife habitat assessment was conducted by Biologist Brittany Reaves. Senior Botanist Elena Gregg conducted a botanical habitat assessment and protocol-level rare plant survey within the BSA.

Habitat assessments for botanical and wildlife species were conducted to determine the suitable habitat elements for special-status species within the BSA. The habitat assessment was conducted by walking the entire BSA, where accessible, and recording specific habitat types and elements. If habitat was observed for special-status species it was then evaluated for quality based on vegetation composition
and structure, physical features (e.g. soils, elevation), micro-climate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates), and land use patterns.

**Rare Plant Survey**
A rare plant survey and habitat evaluation for rare plants was conducted on May 30, 2019. The survey and evaluation were conducted by walking all accessible areas of the project boundary and taking inventory of observed botanical species. The protocol-level survey was conducted for species with blooming periods that overlapped the survey date.

**RESULTS**

**Habitats**

**Barren**
Barren habitat is typified by non-vegetated soil, rock, and gravel. The majority of the BSA contains barren habitat, as the general area for extraction activities is comprised entirely of an exposed gravel bar located within the Middle Fork Eel River. There is also a barren, unpaved access road that will be utilized by trucks for Project activities. Some canopy of the surrounding mixed oak-foothill pine habitat overhangs the access road and could be utilized by nesting birds.

The barren habitat type typically provides low quality habitat to wildlife. Some ground-nesting birds, such as killdeer (*Charadrius vociferus*), will nest in gravelly, barren substrate. Killdeer were observed within the BSA during the habitat assessment.

**Riverine**
Riverine habitat is characterized by intermittent or continually running water. The Middle Fork Eel River provides riverine habitat within the BSA when water is present. The Middle Fork Eel River flows through the BSA during winter and early spring months when water levels are high. Later in the year, flows subside and the exposed gravel bar within the BSA does not contain aquatic features. The Middle Fork Eel River flows perennially adjacent to the BSA. No shaded riverine aquatic habitat is present as there are no trees or riparian vegetation within the BSA.

Riverine habitat provides food for waterfowl, herons (*Ardeidae* sp.), and many species of insectivorous birds, hawks, and their prey. This portion of the Middle Fork Eel River hosts myriad aquatic species and is within designated critical habitat for anadromous fish species.

**Critical Habitat**
The BSA is located on an exposed gravel bar adjacent to the Middle Fork Eel River. The Middle Fork Eel River is designated as critical habitat for Southern Oregon Northern California Coast (SONCC) Evolutionarily Significant Unit (ESU) Coho salmon (*Oncorhynchus kisutch*), California Coastal (CC) ESU Chinook salmon (*Oncorhynchus tshawytscha*), and Northern California (NC) Distinct Population Segment (DPS) steelhead (*Oncorhynchus mykiss*).
Essential Fish Habitat (EFH)
The Middle Fork Eel River supports populations of Chinook salmon which may spawn, breed, feed and grow within its stream channel and associated tributaries. Therefore, the Middle Fork Eel River is considered EFH under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The Middle Fork Eel River is also designated as EFH for coho salmon species; however, coho salmon do not occur in the Middle Fork Eel River and it is therefore not EFH for coho salmon.

Sensitive Natural Communities
No SNCs occur within the BSA.

Special-Status Species
A summary of special-status species assessed for potential occurrence within the BSA based on the USFWS, IPAC species list, CNDDDB, and the CNPS list of rare and endangered plants within the “Dos Rios,” “Laytonville,” “Iron Peak,” and “Covel West” USGS 7.5 minute quadrangles, and their potential to occur within the BSA are described in Table 1. Potential for occurrence was determined by reviewing database queries from federal and state agencies, performing surveys, and evaluating habitat characteristics.

Table 1. Special-status species and sensitive natural communities and their potential to occur in the BSA of the Stewart Bar Mining Project, Mendocino County, CA

<table>
<thead>
<tr>
<th>Common Name (Scientific Name)</th>
<th>Status Fed/State/CNPS</th>
<th>Associated Habitats</th>
<th>Potential for Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SENSITIVE NATURAL COMMUNITIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upland Douglas Fir Forest</td>
<td>/SNC/</td>
<td>Upland forest.</td>
<td>None. There is no Upland Douglas Fir Forest within the BSA.</td>
</tr>
<tr>
<td><strong>PLANTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grass alisma (Alisma gramineum)</td>
<td>/2B.2</td>
<td>Freshwater marshes and swamps. (Blooming Period [BP]: Jun – Aug)</td>
<td>None. There is no suitable habitat present within the BSA.</td>
</tr>
<tr>
<td>Konocti manzanita (Arctostaphylos manzanita ssp. elegans)</td>
<td>/1B.3</td>
<td>Volcanic soils in chaparral, cismontane woodland, lower montane coniferous forest. (BP: Jan, Mar – May, Jul)</td>
<td>None. There is marginal habitat present within the BSA; however, this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Watershield (Brasenia schreberi)</td>
<td>/2B.3</td>
<td>Freshwater marshes and swamps. (BP: Jun – Sep)</td>
<td>None. There is no suitable habitat present within the BSA.</td>
</tr>
<tr>
<td>Common Name (Scientific Name)</td>
<td>Status Fed/State/CNPS</td>
<td>Associated Habitats</td>
<td>Potential for Occurrence</td>
</tr>
<tr>
<td>------------------------------</td>
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<td>--------------------------</td>
</tr>
<tr>
<td>Three-fingered morning-glory (<em>Calystegia collina ssp. tridactylosa</em>)</td>
<td>/ / 1B.2</td>
<td>Rocky, gravelly openings in serpentine chaparral, cismontane woodland. (BP: Apr – Jun)</td>
<td>None. There is suitable habitat present within the BSA; however, this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Glandular western flax (<em>Hesperolinon adenophyllum</em>)</td>
<td>/ / 1B.2</td>
<td>Serpentine soils; generally found in serpentine chaparral. (BP: May – Aug)</td>
<td>None. There is marginal habitat present within the BSA; however, this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Thin-lobed horkelia (<em>Horkelia tenuiloba</em>)</td>
<td>/ / 1B.2</td>
<td>Sandy soils; mesic openings in broadleafed upland forest, chaparral, valley and foothill grassland. (BP: May – Jul)</td>
<td>None. There is marginal habitat present within the BSA; however, this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Burke's goldfields (<em>Lasthenia burkei</em>)</td>
<td>FE/SE/1B.1</td>
<td>Vernal pools, swales, low depressions, in open grassy areas. (BP: Apr – Jun)</td>
<td>None. There is no suitable habitat present within the BSA and this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Contra Costa goldfields (<em>Lasthenia conjugens</em>)</td>
<td>FE/ / 1B.1</td>
<td>Vernal pools, swales, low depressions, in open grassy areas. (BP: Mar – Jun)</td>
<td>None. There is no suitable habitat present within the BSA and this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Baker's meadowfoam (<em>Limnanthes bakeri</em>)</td>
<td>/ / 1B.1</td>
<td>Seasonally moist or saturated sites within grassland; also in swales, roadside ditches, and margins of freshwater marshy areas. (BP: Apr – May)</td>
<td>None. There is no suitable habitat present within the BSA and this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Milo Baker's lupine (<em>Lupinus milo-bakeri</em>)</td>
<td>/ / 1B.1</td>
<td>In roadside ditches, dry gravelly areas along roads, and along small streams. (BP: Jun – Sep)</td>
<td>None. There is marginal habitat present within the BSA; however, this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Common Name (Scientific Name)</td>
<td>Status Fed/State/CNPS</td>
<td>Associated Habitats</td>
<td>Potential for Occurrence</td>
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<tr>
<td><strong>PLANTS</strong></td>
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<tr>
<td>White-flowered rein orchid ((Piperia candida))</td>
<td>_/_1B.2</td>
<td>Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg in forest habitat. (BP: Mar, May – Sep)</td>
<td><strong>None.</strong> There is no suitable habitat present within the BSA and this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Nuttall’s ribbon-leaved pondweed ((Potamogeton epihydrus))</td>
<td>_/_2B.2</td>
<td>Shallow water, ponds, lakes, streams, irrigation ditches. (BP: Jun – Sep)</td>
<td><strong>None.</strong> There is no suitable habitat present within the BSA.</td>
</tr>
<tr>
<td>Great burnet ((Sanguisorba officinalis))</td>
<td>_/_2B.2</td>
<td>Rocky serpentine seepage areas and along streams; bogs and fens, meadows and seeps, broadleafed upland forest, marshes and swamps, north coast coniferous forest, riparian forest. (BP: Jul – Oct)</td>
<td><strong>None.</strong> There is no suitable habitat present within the BSA.</td>
</tr>
<tr>
<td>Showy Indian clover ((Trifolium amoenum))</td>
<td>FE/_1B.1</td>
<td>Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. (BP: Apr – Jun)</td>
<td><strong>None.</strong> There is no suitable habitat present within the BSA and this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td>Oval-leaved viburnum ((Viburnum ellipticum))</td>
<td>_/_2B.3</td>
<td>Chaparral, cismontane woodland, lower montane coniferous forest. (BP: May – Jun)</td>
<td><strong>None.</strong> There is marginal habitat present within the BSA; however, this species was not observed during the protocol-level rare plant survey.</td>
</tr>
<tr>
<td><strong>FISH</strong></td>
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</tr>
<tr>
<td>Coho salmon (\text{Southern Oregon Northern California Coast ESU (}\text{Oncorhynchus kisutch)})</td>
<td>FT/ST/_</td>
<td>Accessible rivers and tributaries from Punta Gorda, California to Cape Blanco, Oregon.</td>
<td><strong>None.</strong> Coho salmon have not been documented in the Middle Fork Eel River or its tributaries and are believed to be extirpated (NMFS 2014).</td>
</tr>
<tr>
<td><strong>Common Name</strong> <em>(Scientific Name)</em></td>
<td><strong>Status</strong> Fed/State/CNPS</td>
<td><strong>Associated Habitats</strong></td>
<td><strong>Potential for Occurrence</strong></td>
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<tr>
<td><strong>FISH</strong></td>
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<tr>
<td>Chinook salmon</td>
<td>FT/<em>/</em></td>
<td>Accessible freshwater rivers, streams, and tributaries between Redwood Creek, Humboldt County and Russian River, Sonoma County.</td>
<td>None. There is no suitable habitat present within the BSA during the summer low-flow period when construction is proposed to occur. The BSA is within designated critical habitat for this species when water is present. Individuals may migrate in flowing water adjacent to the BSA.</td>
</tr>
<tr>
<td>Steelhead</td>
<td>FT/<em>/</em></td>
<td>California coastal river basins from Redwood Creek to and including the Gualala River. Wintering habitat includes streams with deep low-velocity pools while spawning habitat includes gravel substrates free of excessive silt.</td>
<td>None. There is no suitable habitat present within the BSA during the summer low-flow period when construction is proposed to occur. The BSA is within designated critical habitat for this species when water is present. Individuals may migrate in flowing water adjacent to the BSA.</td>
</tr>
<tr>
<td><strong>AMPHIBIANS</strong></td>
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<tr>
<td>Foothill yellow-legged frog</td>
<td>/SC,SSC/_</td>
<td>Partly shaded, shallow streams and riffles with rocky substrates in a variety of habitats, commonly found in canyons and narrow streams. (sea level - 6,700 ft elevation)</td>
<td>None. There are nearby CNDDB occurrences that are hydrologically connected to the Middle Fork Eel River where the BSA is located; however, the BSA does not contain suitable habitat elements during the summer low-flow periods when water is not present.</td>
</tr>
<tr>
<td>California red-legged frog</td>
<td>FT/SSC/_</td>
<td>Streams with consistent flow, slow side waters with cobble and boulders for oviposition.</td>
<td>None. California red-legged frogs do not occur in Mendocino County north of the Navarro River. The BSA is located outside of the known range of this species (USFWS 2002, Gogol-Prokurat 2016a).</td>
</tr>
<tr>
<td>Common Name (Scientific Name)</td>
<td>Status Fed/State/CNPS</td>
<td>Associated Habitats</td>
<td>Potential for Occurrence</td>
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<tr>
<td><strong>REPTILES</strong></td>
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<tr>
<td>Western pond turtle (Emys marmorata)</td>
<td><em>/SSC/</em></td>
<td>Perennial bodies of water with deep pools, locations for haul out, and locations for ovipositon.</td>
<td><strong>Moderate</strong>. The BSA contains basking habitat and there is one (1) CNDDB occurrence within 5 miles.</td>
</tr>
<tr>
<td><strong>BIRDS</strong></td>
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<tr>
<td>Marbled murrelet (Brachyramphus marmoratus)</td>
<td>FT/SE/_</td>
<td>Nests in old-growth redwood-dominated forests, often in Douglas fir. Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz.</td>
<td>None. There is no suitable habitat within or adjacent to the BSA.</td>
</tr>
<tr>
<td>Northern spotted owl (Strix occidentalis caurina)</td>
<td>FT/ST/_</td>
<td>Forests characterized by dense canopy closure of mature and old-growth trees, abundant logs, standing snags, and live trees with broken tops.</td>
<td>None. There is no suitable habitat within or adjacent to the BSA.</td>
</tr>
<tr>
<td>Western snowy plover (Charadrius alexandrinus nivosus)</td>
<td>FT/<em>/</em></td>
<td>Sandy beaches, salt pond levees &amp; shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.</td>
<td>None. There is no suitable habitat within the BSA and the BSA is located outside of the known range for western snowy plover (USFWS 2007).</td>
</tr>
<tr>
<td>Yellow-billed cuckoo (Coccyzus americanus)</td>
<td>FT/SE/_</td>
<td>Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.</td>
<td>None. There is no suitable habitat within the BSA and the BSA is located outside of the known range for western yellow-billed cuckoo (Gogol-Prokurat 2016b).</td>
</tr>
<tr>
<td><strong>MAMMALS</strong></td>
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<tr>
<td>Pallid bat (Antrozous pallidus)</td>
<td><em>/SSC/</em></td>
<td>Roosts within buildings, rock crevices, bridges, and occasionally tree hollows.</td>
<td>None. There is no suitable habitat within the BSA.</td>
</tr>
<tr>
<td>Common Name (Scientific Name)</td>
<td>Status Fed/State/CNPS</td>
<td>Associated Habitats</td>
<td>Potential for Occurrence</td>
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<tr>
<td><strong>MAMMALS</strong></td>
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</tr>
<tr>
<td>Townsend’s big-eared bat</td>
<td><strong>/SSC/</strong></td>
<td>Roost in caves and cave-like cavities, occasionally in bridges.</td>
<td>None. There is no suitable habitat within the BSA.</td>
</tr>
<tr>
<td>(Corynorhinus townsendii)</td>
<td></td>
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</tr>
<tr>
<td>Western red bat</td>
<td><strong>/SSC/</strong></td>
<td>Riparian areas dominated by walnuts, oaks, willows, cottonwoods, and sycamores where they roost in these broad-leaved trees.</td>
<td>None. There is no suitable habitat within the BSA.</td>
</tr>
<tr>
<td>(Lasiurus blossevillii)</td>
<td></td>
<td></td>
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<tr>
<td>Fisher</td>
<td>FC/ST/__</td>
<td>Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.</td>
<td>None. There is no suitable habitat present within the BSA.</td>
</tr>
<tr>
<td>West Coast DPS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Pekania pennanti)</td>
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</tr>
</tbody>
</table>

**CODE DESIGNATIONS**

- **FE or FT** = Federally listed as Endangered or Threatened  
- **FC** = Federal Candidate Species  
- **SE or ST** = State Listed as Endangered or Threatened  
- **SC** = State Candidate Species  
- **SSC** = State Species of Special Concern  
- **FP** = State Fully Protected Species  
- **SNC** = CDFW Sensitive Natural Community

**CNPS California Rare Plant Rank (CRPR):**  
- **CRPR 1B** = Rare or Endangered in California or elsewhere  
- **CRPR 2** = Rare or Endangered in California, more common elsewhere  
- **CRPR 3** = More information is needed  
- **CRPR 4** = Plants with limited distribution

0.1 = Seriously Threatened  
0.2 = Fairly Threatened  
0.3 = Not very Threatened

**Potential for Occurrence:** for plants it is considered the potential to occur during the survey period; for birds and bats it is considered the potential to breed, forage, roost, or over-winter in the BSA during migration. Any bird or bat species could fly over the BSA, but this is not considered a potential occurrence. The categories for the potential for occurrence include:

**None:** The species or natural community is known not to occur, and has no potential to occur in the BSA based on sufficient surveys, the lack suitable habitat, and/or the BSA is well outside of the known distribution of the species.
The following special-status species have potential to occur within the BSA based on the presence of suitable habitat and/or known records of species occurrence within the vicinity of the BSA.

**Endangered, Threatened and Rare Plants**

There were no endangered, threatened, or rare plants observed within the BSA during the protocol-level rare plant survey conducted on May 30, 2019. A complete list of plant species observed within the BSA can be found in Appendix B.

**Endangered, Threatened and Special Status Wildlife**

A wildlife habitat assessment was conducted within the BSA on May 30, 2019. Suitable habitat was identified for several avian species protected under the MBTA and for special-status aquatic species that may occur adjacent to the BSA.

**Northern California Steelhead**

The NC steelhead DPS is considered threatened under the federal ESA. They rely on streams, rivers, estuaries, and marine habitat during their lifecycle. Because young steelhead spend a significant portion of their lives in rivers and streams, they are particularly susceptible to human induced changes to water quality and habitat threats. Winter-run steelhead enter the river from November through April and spawn during February through April. Summer-run steelhead enter the river from March through June and spawn the following spring (Yoshiyama and Moyle 2010). Steelhead spawn in streams and rivers and rear in freshwater for 1 to 4 years before migrating downstream through estuaries to the open ocean. Steelhead spend 1 to 5 years at sea before returning to natal streams or rivers. Steelhead do not always die after spawning, but will again migrate through estuaries to the ocean.

**CNDDDB Occurrences**

There are no occurrences of NC steelhead within the five (5) mile radius of the BSA; however, the Middle Fork Eel River is designated as critical habitat for NC steelhead and NC steelhead are known to occur in this river system (NMFS 2016, Yoshiyama and Moyle 2010).

**Status of NC steelhead occurring in the BSA**

The lower 25 miles of the Middle Fork Eel River below the confluence of the Black Butte River has historically had elevated stream temperatures and limited presence of salmonids due to a Mediterranean climate that causes hot, dry summers in the area (Yoshiyama and Moyle 2010). Steelhead spawn in the upper reaches of the Middle Fork Eel River; however, due to high temperatures...
and lack of cover, woody debris, and riparian vegetation, steelhead are unlikely to hold or spawn in the river adjacent to where the BSA is located. Steelhead individuals may migrate past the BSA during the proposed construction period, but will not occur within the BSA as construction will only occur when the BSA is dry.

**California Coastal Chinook Salmon**

Chinook salmon are an anadromous species which originate in freshwater environments, such as major streams and tributaries, before migrating to oceanic environments to grow and mature, then returning to their natal freshwater environments to spawn and eventually die. Chinook salmon are the largest of the salmon species. They range in appearance throughout their developmental stages and aquatic environments.

California Coastal Chinook salmon are considered an ESU by NMFS and their listing status is threatened under the federal ESA. Most fall-run Chinook Salmon return to their natal streams between September and October, and spawn soon after freshwater entry. Fall-run CC Chinook Salmon adult migration can be later when compared to other fall-run Chinook Salmon, because the rivers they inhabit open later in the season in response to large winter storms (November through January). The typical life cycle for CC Chinook Salmon is to outmigrate as smolts during the spring and summer after hatching, then spend 1 to 5 years in the ocean before returning to spawn. Key habitat for Chinook salmon includes moderately deep pools utilized for holding habitat over summer, small cobble or gravel substrate for spawning, and slow, off-channel water with debris or vegetation that juveniles utilize for rearing habitat and refuge. Shade and wood cover have been indicated as important for juvenile Chinook salmon holding habitat (Zajanc et al. 2012). Chinook salmon adults utilize deep pools for holding that usually have a large bubble curtain at the head, underwater rocky ledges, and shade cover throughout the day, or hold in smaller “pocket” water behind large rocks in fast water (Moyle et al. 1995).

**CNDDB Occurrences**

There are no occurrences of CC Chinook salmon within the five (5) mile radius of the BSA; however, the Middle Fork Eel River is designated as critical habitat for CC Chinook salmon and CC Chinook salmon are known to occur in this river system (NMFS 2016, Yoshiyama and Moyle 2010).

**Status of CC Chinook salmon occurring in the BSA**

The lower 25 miles of the Middle Fork Eel River below the confluence of the Black Butte River has historically had elevated stream temperatures and limited presence of salmonids due to a Mediterranean climate that causes hot, dry summers in the area (Yoshiyama and Moyle 2010). California Coastal Chinook salmon spawn in the upper reaches of the Middle Fork Eel River; however, due to high temperatures and lack of cover, woody debris, and riparian vegetation, Chinook salmon are unlikely to hold or spawn in the river adjacent to where the BSA is located. Chinook salmon individuals may migrate past the BSA during the proposed construction period, but will not occur within the BSA as construction will only occur when the BSA is dry.
**Foothill Yellow-Legged Frog**

Foothill yellow-legged frog (FYLF, *Rana boylii*) is currently a California SSC and a candidate species for consideration to be listed as threatened pursuant to the California Endangered Species Act (CESA). FYLF require shallow, flowing water in small to moderate sized streams with cobble substrate that is best suited for oviposition. The cobble substrate also provides significant refuge for early life stage. Eggs, tadpoles, and metamorphs are susceptible to aquatic predators such as bullfrogs (*Lithobates catesbeianus*), various species of fish, and garter snakes (*Thamnophis* spp.). Foothill yellow-legged frogs generally come out of hibernation around March and begin breeding and laying egg masses from mid-March through May, once local spring flooding conditions have subsided (Zeiner 1990). Egg laying typically occurs at a particular site once water temperatures reach 12 to 15° C (Seltenrich 2002). Irregular water flows from large non-seasonal precipitation events or large water releases from upstream reservoirs can scour egg masses from oviposition locations.

**CNDDB occurrences**

There are two (2) CNDDB occurrences of FYLF within 5 miles of the BSA. The nearest occurrence is located approximately 1 mile northwest of the BSA (#2442). Several adults and juveniles were observed in Poonkinny Creek in late September and early November 2018. The other occurrence (#2193) is located approximately 3 miles south of BSA in the mainstem Eel River. Foothill yellow-legged frog tadpoles and one (1) juvenile were observed during summer fish rearing surveys for Potter Valley hydroelectric project in the summer of 2017 (CNDDB 2019).

**Status of foothill yellow-legged frog occurring within the BSA**

Foothill yellow-legged frogs generally prefer low-gradient, partially shaded streams with 20 to 90 percent canopy cover. In larger channels like the Middle Fork Eel River, breeding sites are often at point bars or depositional environments near the tail-end of pools or near tributary confluences, as these sites have reduced chance of scour (Hayes *et al.* 2016). As gravel extraction activities are proposed to occur during the summer low-flow period when the BSA is expected to be dry, there is no potential for FYLF to breed within the BSA when water is not present.

There is cobble and riffle habitat present adjacent to the BSA; however, there is a total absence of riparian vegetation and shade that appears to be an important component of FYLF breeding habitat (Hayes and Jennings 1988, Hayes *et al.* 2016).

Due to lack of canopy cover, lack of observations during the habitat assessment, and absence of water within the BSA, there is no potential for FYLF to occur within the BSA during the proposed construction period.

**Western Pond Turtle**

The western pond turtle is a SSC in California. Western pond turtles are drab, darkish-colored turtles with a yellowish to cream colored head. They range from the Washington Puget Sound to Baja California. Suitable aquatic habitats include slow moving to stagnant water, such as backwaters and
ponded areas of rivers and creeks, semi-permanent to permanent ponds, and irrigation ditches. Preferred habitats include features such as hydrophytic vegetation for foraging and cover and basking areas to regulate body temperature. In early spring through early summer, female turtles begin to move over land in search for nesting sites. Eggs are laid on the banks of slow-moving streams. The female digs a hole approximately 4 inches deep and lays up to 11 eggs. Afterwards, the eggs are covered with sediment and are left to incubate under the warm soils. Eggs are typically laid between March and August (Zeiner et al. 1990). Current threats facing the western pond turtle include loss of suitable aquatic habitats due to rapid changes in water regimes and removal of hydrophytic vegetation.

**CNDDB occurrences**
There is one (1) CNDDB occurrence of western pond turtle within 5 miles of the BSA (#613). This occurrence was observed in 2004 and is located approximately 1.5 miles west northwest of the BSA along the edge of the Eel River.

**Status of western pond turtle occurring within the BSA**
Western pond turtles are known to bask on banks and woody debris, such as logs, along the sides of perennial aquatic features like the Middle Fork Eel River. There is moderate potential for western pond turtle to occur within the BSA.

**Migratory Birds and Raptors**
Nesting birds are protected under the MBTA (16 USC 703) and the CFGC (§3503). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

**CNDDB occurrences**
The majority of migratory birds and raptors protected under the MBTA and CFGC are not recorded on the CNDDB because they are abundant and widespread.

**Status of migratory birds and raptors occurring in the BSA**
There is suitable nesting habitat for a ground-nesting avian species within and adjacent to the BSA, and there is suitable nesting habitat for tree- and shrub-nesting avian species immediately adjacent to the BSA.
REGULATORY FRAMEWORK
The following describes federal, state, and local environmental laws and policies that may be relevant if the BSA were to be developed or modified.

Federal

Waters of the United States, Clean Water Act, Section 404
The US Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under the Clean Water Act (§404). The term “waters of the United States” is an encompassing term that includes “wetlands” and “other waters.” Wetlands have been defined for regulatory purposes as follows: “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Wetlands generally include swamps, marshes, bogs, and similar areas.” Other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular Project, as well as specific conditions that apply to each nationwide permit.

Clean Water Act, Section 401
The Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

1 As of August 2015 the EPA and Corps definition of “waters of the U.S.” has changed. Several lawsuits were filed petitioning the new definition and in October 2015 a nationwide stay on the new definition was implemented. Under the stay the old definition is being applied until further notice. Check with the Corps website for the most current information.
Federal Endangered Species Act
The United States Congress passed the ESA in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Under the ESA, species may be listed as either “endangered” or “threatened.” Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except non-native species and pest insects, are eligible for listing as endangered or threatened. The USFWS also maintains a list of “candidate” species. Candidate species are species for which there is enough information to warrant proposing them for listing, but that have not yet been proposed. “Proposed” species are those that have been proposed for listing, but have not yet been listed.

The ESA makes it unlawful to “take” a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Through regulations, the term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

Migratory Bird Treaty Act
The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately March 1 through August 31). If vegetation removal or ground disturbance activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA present in the construction area prior to commencement of construction. If active nests are located or presumed present, then appropriate avoidance measures (e.g. spatial or temporal buffers) must be implemented.

Magnuson-Stevens Fishery Conservation and Management Act
The Magnuson-Stevens Fishery Conservation and Management Act (MSA) established procedures designed to identify, conserve, and enhance essential fish habitat (EFH) for those species regulated under a federal fisheries management plan (FMP). The MSA requires federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, authorized, funded, or undertaken by the agencies that may adversely affect EFH (MSA section 305[b][2]). A component of this consultation process is the preparation and submittal of an Essential Fish Habitat Assessment (EFHA).
The EFH mandate applies to all species managed under an FMP. For the Pacific coast (excluding Alaska), there are three FMPs covering groundfish, coastal pelagic species, and Pacific salmon.

**State of California**

**California Endangered Species Act**
The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the California Environmental Quality Act (CEQA). The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, “species of special concern” receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

**California Fish and Game Code (§3503.5)**
The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

**Lake and Streambed Alteration Agreement, CFGC (§1602)**
The CDFW is a trustee agency that has jurisdiction under the CFGC (§1600 et seq.). The California Fish and Game Code (§1602), requires that a state or local government agency, public utility, or private entity must notify CDFW if a proposed Project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds... except when the department has been notified pursuant to Section 1601.” If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

**Rare and Endangered Plants**
The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS California Rare Plant Rank (CRPR) plants receive consideration under CEQA review. The CNPS CRPR categorizes plants as follows:
- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2A: Plants presumed extirpated or extinct in California, but not elsewhere;
- Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and Game Code §1913 exempts from the ‘take’ prohibition “the removal of endangered or rare native plants from a canal, lateral channel, building site, or road, or other right of way.”

**California Environmental Quality Act Guidelines §15380**

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list 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 based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project’s potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

**CONCLUSIONS AND RECOMMENDATIONS**

**Endangered, Threatened and Rare Plants**

There are no special-status botanical species present within the BSA; therefore, there will be no effects to botanical species and no avoidance and minimization measures are proposed.

**Endangered, Threatened, and Special-status Wildlife**

The following are the recommended minimization and mitigation measures further reduce or eliminate Project-associated impacts to special-status wildlife species. These proposed measures may be amended or superseded by the Project-specific permits issued by the regulatory agencies.
Anadromous Fish Species

The contractor shall attempt to avoid impacts to anadromous fishes and their habitat by avoiding in-water work. This will be done by commencing Project activities when there is no flowing or ponded water within the BSA and concluding Project activities within Middle Fork Eel River before flows increase again the following fall/winter.

To avoid potential impacts to anadromous fish species and their critical habitat, the following are recommended avoidance and minimization measures:

- Extraction activities shall only occur during daylight hours to allow ‘noise refugia’ and time for fish to migrate out of or past the area of Project noise occurrence.

- Channel disturbance shall be kept to a minimum during construction activities within the channel and only occur within designated areas. Silt fencing should be installed to delineate a 50-foot buffer between all construction activities and the active wetted channel at all times.

- Any large woody debris (i.e., dead trunk or branch diameter >6 inches in diameter) that is removed during construction should be placed back into the active Middle Fork Eel River.

- All bare mineral soil exposed in conjunction with road construction that leads to the affected stream shall be treated for erosion prior to the onset of precipitation capable of generating run-off or the end of the yearly work period, whichever comes first. Restoration shall include using native slash or seeding and mulching of all bare mineral soil exposed in conjunction with encroachment work. No known invasive grass seed shall be used, such as annual or perennial ryegrass (*Festuca perennis*).

- The Project proponent shall provide site maintenance including, but not limited to, reapplying erosion control to minimize surface erosion and ensuring drainage structures, streambeds, and banks remain sufficiently armored and stable.

- Structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the ordinary high water mark before such flows occur or the end of the yearly work period, whichever comes first.

- Refueling of equipment and vehicles and storing, adding, or draining lubricants, coolants, or hydraulic fluids shall not take place within or adjacent to any stream. All such fluids and containers shall be disposed of properly. Heavy equipment parked within or adjacent to the stream shall use drip pans or other devices (e.g., absorbent blanks, sheet barriers, or other materials) as needed to prevent soil and water contamination.

- All activities performed in the field which involve the use of petroleum or oil based substances shall employ absorbent material designated for spill containment and clean up activity on site.
for use in case of accidental spills. Clean-up of all spills shall begin immediately. CDFW shall be notified by the Project proponent and consulted regarding clean-up procedures.

- No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from construction work, or associated activity of whatever nature shall be allowed to enter into, or be placed where it may be washed by rainfall or runoff into the stream. When operations are completed, any excess materials or debris shall be removed from the work area.

- All traffic and equipment staging should be limited to the existing access road and designated staging areas.

- The excavation site shall be recontoured following extraction activities each season to prevent the entrapment or entrainment of wildlife in open trenches or borrow pits.

**Anadromous Fish Critical Habitat and Essential Fish Habitat**

Please refer to avoidance and minimization measures for Anadromous Fish Species. Further mitigation may be required for impacts to critical habitat and EFH (i.e., dredging activities within stream habitat) and will be addressed in a separate Biological Assessment. The Biological Assessment will be prepared to assist the federal lead agency, presumably the Corps, with consultation via Section 7 of the ESA.

**Foothill Yellow-Legged Frog**

Under state regulations, a candidate threatened species receives the same protections as listed species until the final determination is made on its status. Although there is no potential for FYLF to occur within the BSA when it is dry, in an abundance of caution the contractor shall implement the following recommendations in an effort to avoid and minimize impacts to this species:

- Construction within Middle Fork Eel River shall commence when there is no flowing or ponded water within the BSA and shall conclude before the river begins to flow through the BSA again the following fall/winter.

- If flowing or ponded water is present within the BSA, qualified biologist shall conduct a pre-construction survey within 72 hours prior to the start of construction to determine the absence/presence of FYLF. If at any point FYLF are found within the Project site, CDFW shall be consulted. Construction activities shall not commence until the contractor has received written verification from CDFW that the Project can continue.

- Only wildlife-friendly 100 percent biodegradable erosion control products that will not entrap or harm wildlife shall be used. Erosion control products shall not contain synthetic (e.g., plastic or nylon) netting. Photodegradable synthetic products are not considered biodegradable.
Western Pond Turtle
The following are avoidance and minimization measures recommended in order to avoid and minimize potential impacts to western pond turtle:

- Immediately prior to the start of work, a qualified biologist shall conduct a survey to determine the presence or absence of western pond turtles. If western pond turtles are observed where they could be potentially impacted by Project activities, as determined by the on-site biologist, then work shall not be conducted within 100 feet of the sighting until the turtle(s) have left the Project site or a qualified biologist has relocated the turtle(s) immediately outside of the Project site.

- If turtle eggs are uncovered during construction activities, then all work shall stop within a 25 feet radius of the nest and the qualified biologist should be notified immediately. The 25-foot buffer should be marked with identifiable markers that do not consist of fencing or materials that may block the migration of young turtles to the water or attract predators to the nest site. No work will be allowed within the 25 foot buffer until the turtle eggs have hatched or the nest fails.

- All portions of the Project site that could result in inadvertently trapping turtles, such as open pits, trenches, and de-watered areas will be covered and/or exclusion fencing will be installed to prevent turtles from entering these areas.

Migratory Birds and Raptors
To avoid impacts to avian species protected under the MBTA and the CFGC the following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (February 1 – August 31).

- If Project activities cannot be initiated outside of the bird nesting season then the following will occur:
  - A qualified biologist will conduct a pre-construction survey within 250 feet of the BSA, where accessible, within 7 days prior to the start of Project activities.
  - If an active nest (i.e. containing egg(s) or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails as determined by a qualified biologist. Nests shall be
monitored by a qualified biologist once per week and a report submitted to the CEQA lead agency weekly.

Other Natural Resources

Waters of the United States
If activities occur within the ordinary high-water mark and/or result in fill or discharge to any waters of the U.S which include but are not limited to, intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, vernal pools or natural ponds, then the following will need to be obtained:

- Prior to any discharge or fill material into Waters of the U.S, authorization under a Nationwide Permit or Individual Permit shall be obtained from the Corps. For fill requiring a Corps permit, a water quality certification from the Regional Water Quality Board (Clean Water Act §401) shall also be obtained prior to discharge of dredged or fill material.

- Prior to any activities that would obstruct the flow of or alter the bed, channel, or bank of any perennial, intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the CDFW, and, if required, a Lake and Streambed Alteration Agreement (§1602) shall be obtained.
REFERENCES


Western Regional Climate Center (WRCC). 2019. Period of Record Monthly Climate Summary for Covelo, California (042081). Online access.


LIST OF PREPARERS

Brittany Reaves. Biologist. B.S. in Parks and Natural Resources Management, California State University, Chico. Mrs. Reaves has over 2 years of experience conducting wildlife surveys and habitat assessments, field data collection, and preparing technical documents and reports.

Elena Gregg. Senior Botanist. B.S. in Environmental Biology and Management, University of California, Davis. Mrs. Gregg has more than 12 years’ experience conducting rare plant surveys, habitat assessments, wetland delineations, and preparing reports.

Cate Davis. GIS Analyst and Cultural Resource Specialist. Master of Arts in Anthropology with a specialization in GIS applications and land use studies, California State University, Chico. Ms. Davis has over 5 years of experience working with GIS while incorporating surveying applications, analysis of datasets, and collection of field data in order to create professional quality graphics and reports.
To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.
A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
(707) 822-7201
Project Summary
Consultation Code: 08EACT00-2019-SLI-0359
Event Code: 08EACT00-2019-E-00809
Project Name: Stewart Bar
Project Type: DREDGE / EXCAVATION
Project Description: mining
Project Location:
Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/39.70585030850006N123.32891957453273W

Counties: Mendocino, CA
Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fisher <em>Pekania pennanti</em></td>
<td>Proposed Threatened</td>
</tr>
<tr>
<td>Population: West coast DPS</td>
<td></td>
</tr>
<tr>
<td>No critical habitat has been designated for this species.</td>
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<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/3651">https://ecos.fws.gov/ecp/species/3651</a></td>
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</tr>
</tbody>
</table>
**Birds**

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marbled Murrelet <em>Brachyramphus marmoratus</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>Population: U.S.A. (CA, OR, WA)</td>
<td></td>
</tr>
<tr>
<td>There is <strong>final</strong> critical habitat for this species. Your location is outside the critical habitat.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/4467">https://ecos.fws.gov/ecp/species/4467</a></td>
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</tr>
<tr>
<td>Northern Spotted Owl <em>Strix occidentalis caurina</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>There is <strong>final</strong> critical habitat for this species. Your location is outside the critical habitat.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/1123">https://ecos.fws.gov/ecp/species/1123</a></td>
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</tr>
<tr>
<td>Western Snowy Plover <em>Charadrius nivosus nivosus</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast)</td>
<td></td>
</tr>
<tr>
<td>There is <strong>final</strong> critical habitat for this species. Your location is outside the critical habitat.</td>
<td></td>
</tr>
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<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/8035">https://ecos.fws.gov/ecp/species/8035</a></td>
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</tr>
<tr>
<td>Yellow-billed Cuckoo <em>Coccyzus americanus</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>Population: Western U.S. DPS</td>
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</tr>
<tr>
<td>There is <strong>proposed</strong> critical habitat for this species. Your location is outside the critical habitat.</td>
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**Amphibians**

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Red-legged Frog <em>Rana draytonii</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>There is <strong>final</strong> critical habitat for this species. Your location is outside the critical habitat.</td>
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</tr>
<tr>
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**Flowering Plants**

<table>
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<tr>
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<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burke's Goldfields <em>Lasthenia burkei</em></td>
<td>Endangered</td>
</tr>
<tr>
<td>No critical habitat has been designated for this species.</td>
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<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/4338">https://ecos.fws.gov/ecp/species/4338</a></td>
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<tr>
<td>Contra Costa Goldfields <em>Lasthenia conjugens</em></td>
<td>Endangered</td>
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<tr>
<td>There is <strong>final</strong> critical habitat for this species. Your location is outside the critical habitat.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/7058">https://ecos.fws.gov/ecp/species/7058</a></td>
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</tr>
<tr>
<td>Showy Indian Clover <em>Trifolium amoenum</em></td>
<td>Endangered</td>
</tr>
<tr>
<td>No critical habitat has been designated for this species.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/6459">https://ecos.fws.gov/ecp/species/6459</a></td>
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</tr>
</tbody>
</table>
Critical habitats
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.
Stewart Bar Mining Project

Quad Name **Dos Rios**
Quad Number **39123-F3**

*ESA Anadromous Fish*
SONCC Coho ESU (T) - X
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) - X
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) - X
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) –

*ESA Anadromous Fish Critical Habitat*
SONCC Coho Critical Habitat - X
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat - X
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat - X
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

*ESA Marine Invertebrates*
Range Black Abalone (E) -
Range White Abalone (E) -

*ESA Marine Invertebrates Critical Habitat*
Black Abalone Critical Habitat –

*ESA Sea Turtles*
East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) –

*ESA Whales* –

*ESA Pinnipeds*
Guadalupe Fur Seal (T) –

*ESA Pinnipeds Critical Habitat*
Steller Sea Lion –

*Essential Fish Habitat*
Coho Salmon - ✔
Chinook Salmon - ✔
Groundfish -
Coastal Pelagic -
Highly Migratory Species –

*MMPA Species*
MMPA Cetaceans -
MMPA Pinnipeds –

Compass Land Group
C/O Jordan Main
3140 Peacekeeper Way, Suite 102
McClellan, CA 95652
916.825.4997

**Brittany Reaves**
**Biologist**
Gallaway Enterprises
117 Meyers Street Suite 120
Chico, CA 95928
(530) 332-9909
brittany@gallawayenterprises.com
EFH Data Notice: Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional Fishery Management Councils. In most cases mapping data cannot fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

West Coast Regional Office
Alaska Regional Office

Query Results

Degrees, Minutes, Seconds: Latitude = 39º42’43” N, Longitude = 124º40’16” W
Decimal Degrees: Latitude = 39.71, Longitude = -123.33

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

<table>
<thead>
<tr>
<th>EFH</th>
<th>HUC Name</th>
<th>Species/Management Unit</th>
<th>Lifestage(s) Found at Location</th>
<th>Management Council</th>
<th>FMP</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="HashMap" /> <img src="link" alt="Link" /></td>
<td>Middle Fork Eel</td>
<td>Chinook Salmon, Coho Salmon</td>
<td>All</td>
<td>Pacific</td>
<td>Pacific Coast Salmon Plan</td>
</tr>
</tbody>
</table>

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.

**For links to all EFH text descriptions see the complete data inventory: open data inventory -->**
Query Criteria: Quad IS (Dos Rios (3912363) OR Laytonville (3912364) OR Iron Peak (3912374) OR Covelo West (3912373))
<table>
<thead>
<tr>
<th>Species</th>
<th>Element Code</th>
<th>Federal Status</th>
<th>State Status</th>
<th>Global Rank</th>
<th>State Rank</th>
<th>Rare Plant Rank/CDFW SSC or FP</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Alisma gramineum</em></td>
<td>PMALI01010</td>
<td>None</td>
<td>None</td>
<td>G5</td>
<td>S3</td>
<td>2B.2</td>
</tr>
<tr>
<td>grass alisma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Antrozous pallidus</em></td>
<td>AMACC10010</td>
<td>None</td>
<td>None</td>
<td>G5</td>
<td>S3</td>
<td>SSC</td>
</tr>
<tr>
<td>pallid bat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Arctostaphylos manzanita ssp. elegans</em></td>
<td>PDERI04271</td>
<td>None</td>
<td>None</td>
<td>G5T3</td>
<td>S3</td>
<td>1B.3</td>
</tr>
<tr>
<td>Konocti manzanita</td>
<td></td>
<td></td>
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<td>S3</td>
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<td><em>Emys marmorata</em></td>
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<td>oval-leaved viburnum</td>
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Record Count: 20
### Plant List

**Inventory of Rare and Endangered Plants**

11 matches found.  *Click on scientific name for details*

#### Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B]. Found in Quads 3912363, 3912364 3912374 and 3912373;

- **Scientific Name**: Alisma gramineum  
  **Common Name**: grass alisma  
  **Family**: Alismataceae  
  **Lifeform**: perennial rhizomatous herb (aquatic)  
  **Blooming Period**: Jun-Aug

- **Scientific Name**: Arctostaphylos manzanita ssp. elegans  
  **Common Name**: Konocti manzanita  
  **Family**: Ericaceae  
  **Lifeform**: perennial evergreen shrub  
  **State Rank**: S3  
  **Global Rank**: G5T3

- **Scientific Name**: Brasenia schreberi  
  **Common Name**: watershield  
  **Family**: Cabombaceae  
  **Lifeform**: perennial rhizomatous herb (aquatic)  
  **Blooming Period**: Jun-Sep

- **Scientific Name**: Calystegia collina ssp. tridactylosa  
  **Common Name**: three-fingered morning-glory  
  **Family**: Convolvulaceae  
  **Lifeform**: perennial rhizomatous herb  
  **Blooming Period**: Apr-Jun

- **Scientific Name**: Hesperolinon adenophyllum  
  **Common Name**: glandular western flax  
  **Family**: Linaceae  
  **Lifeform**: annual herb  
  **State Rank**: S2S3  
  **Global Rank**: G2G3

- **Scientific Name**: Limnanthes bakeri  
  **Common Name**: Baker's meadowfoam  
  **Family**: Limnanthaceae  
  **Lifeform**: annual herb  
  **Blooming Period**: Apr-May

- **Scientific Name**: Lupinus milo-bakeri  
  **Common Name**: Milo Baker's lupine  
  **Family**: Fabaceae  
  **Lifeform**: annual herb  
  **State Rank**: S1  
  **Global Rank**: G1Q

- **Scientific Name**: Piperia candida  
  **Common Name**: white-flowered rein orchid  
  **Family**: Orchidaceae  
  **Lifeform**: perennial herb  
  **State Rank**: S3  
  **Global Rank**: G3

- **Scientific Name**: Potamogeton epihydrus  
  **Common Name**: Nuttall's ribbon-leaved pondweed  
  **Family**: Potamogetonaceae  
  **Lifeform**: perennial rhizomatous herb (aquatic)  
  **State Rank**: S2S3  
  **Global Rank**: G5

- **Scientific Name**: Sanguisorba officinalis  
  **Common Name**: great burnet  
  **Family**: Rosaceae  
  **Lifeform**: perennial rhizomatous herb  
  **State Rank**: S2  
  **Global Rank**: G5?

- **Scientific Name**: Viburnum ellipticum  
  **Common Name**: oval-leaved viburnum  
  **Family**: Adoxaceae  
  **Lifeform**: perennial deciduous shrub  
  **State Rank**: S3?  
  **Global Rank**: G4G5

---

**Suggested Citation**

Appendix B

Observed Plant Species List
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
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<tbody>
<tr>
<td>Achillea millefolium</td>
<td>Common yarrow</td>
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<tr>
<td>Aesculus californica</td>
<td>California buckeye</td>
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<td>Agoseris grandiflora</td>
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<td>Aira caryophyella</td>
<td>Silver hairgrass</td>
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<td>Arctostaphylos manzanita ssp. manzanita</td>
<td>Big manzanita</td>
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<td>Baccharis pilularis</td>
<td>Coyote brush</td>
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<td>Brachypodium distachyon</td>
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<td>Brickellia greenei</td>
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<td>Briza minor</td>
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<td>Brodiaea elegans</td>
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<td>Western redbud</td>
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<td><em>Geranium molle</em></td>
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<tr>
<td><em>Vicia villosa</em></td>
<td>Winter vetch</td>
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<tr>
<td><em>Wyethia angustifolia</em></td>
<td>Narrow leaf mule ears</td>
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</table>
Appendix C

Project Site Photos Taken May 30, 2019
Project Site Photos

Taken May 30, 2019

The access road connecting Highway 162 to the Project site.

View of Stewart Bar from the access road, looking south.

Stewart Bar, looking west.

Middle Fork Eel River, looking southwest.

Stewart Bar, looking east.

Looking north at Stewart Bar and the access road.
APPENDIX H

STATEMENT OF RECLAMATION RESPONSIBILITY
STATEMENT OF RESPONSIBILITY (SOR)
Reference SMARA 2772.C.10

In consideration of approval by the lead agency of this application for a Surface Mining Permit and/or Reclamation Plan, the undersigned, jointly and severally, hereby covenant with the lead agency and the Department of Conservation as follows:

MINE NAME: Stewart Bar

LEAD AGENCY: Mendocino County

CALIFORNIA MINE ID #: 91- TBD

CONDITIONAL USE PERMIT #: TBD

I hereby acknowledge that all of the provisions of said permit and reclamation plan, and any and all conditions appended thereto shall be faithfully performed and completed by the undersigned within the time therein provided, or within any additional time as may be allowed pursuant to the Surface Mining Ordinance Code of the lead agency and with the applicable requirements of Articles 1 and 9 (commencing with section 3500 et seq., respectively) of chapter 8, division 2, title 14, of the California Code of Regulations, the Surface Mining and Reclamation Act of 1975 (SMARA), as amended (section 2710 et seq. of the Public Resources Code) which are incorporated herein by reference.

That the obligations of the undersigned to perform and complete the provisions of said permit and/or plan, including any and all conditions appended thereto, shall be subject to the provisions of said Ordinance Code and SMARA and the State Mining and Geology Board's implementing regulations and guidelines.

That the place of performance by the undersigned of the covenants herein, shall be the area managed by the lead agency in the State of California.

That, pursuant to Public Resources Code section 2774.1 (a) notice procedures, any notice required to be given, or otherwise given to the undersigned may be by personal service or by certified mail.

Owner of Operation Business Structure: (check one)

✔ Corporation

☐ Limited Partnership

☐ Limited Liability Corporation

☐ Individual

☐ General Partnership

Check one:

☐ I have posted an adequate financial assurance mechanism pursuant to Public Resources Code section 2773.1 that is equal to or greater than the lead agency approved financial assurance cost estimate.

Mechanism Type (check one)

☐ Surety Bond

☐ Certificate of Deposit

☐ Letter of Credit

☐ Other:

Date Posted: ____________

☐ Or

✔ I will post an adequate financial assurance mechanism, pursuant to Public Resources Code section 2773.1 that is equal to or greater than the lead agency approved financial assurance cost estimate.

Mechanism Type (check one)

☐ Surety Bond

☐ Certificate of Deposit

☐ Letter of Credit

☐ Other:

Dated this __________ day of May, 2020

Brian Hurt
Printed Name of Owner of Operation

Signature of Owner of Operation
(to be acknowledged by a Notary Public)

FOR DEPARTMENT USE ONLY
(completed by staff after approval of project)

SMARA Database Entry Date Analyst Initials
State of California
County of Mendocino

On 5-1-2020 before me, 拉西·D·麦考马克 Notary Public

Date
Personally appeared Brian Hurt

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Signature of Notary Public

Place Notary Seal Above
FINANCIAL ASSURANCE COST ESTIMATE

FOR

Stewart Gravel Bar

(Mine Name)

CA Mine ID # 91-TBD

Reclamation Plan #:Name TBD

Prepared by: (Name & Affiliation):

Jordan Main (Compass Land Group)

3140 Peacekeeper Way, Suite 102

McClellan, CA 95652

Date: 04/17/2020

This financial assurance cost estimate prepared and submitted pursuant to (choose one):

☐ A new or amended reclamation plan approved on (Date): Pending

☐ An annual mine inspection performed on (Date): 

☐ Other: Please Specify: Application for new mine site

Most Recent Approved Financial Assurance Cost Estimate

Date: N/A

Amount: $ N/A

Amount of existing Financial Assurance Mechanism(s)

Date: N/A

Amount: $ N/A
I. SUPPORTING DOCUMENTS
This estimate represents the cost of conducting and completing reclamation in accordance with the Surface Mining and Reclamation Act (SMARA) and the following supporting documents:

<table>
<thead>
<tr>
<th>Reclamation Plan Approval Date and Number</th>
<th>Pending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permits and/or Environmental Documents Approved as, or Conditioned upon, the Reclamation Plan</td>
<td>Conditional Use Permit (approval pending)</td>
</tr>
</tbody>
</table>

Other Agency Financial Assurances Securing Reclamation of Disturbed Lands
N/A

Wage Rates used in Cost Estimate* (cost estimates are required to use current ‘General prevailing wage determinations made by the director of industrial relations’ where applicable (http://www.dir.ca.gov/OPRL/PWD/index.htm) with employer labor surcharge added, or greater)
General Prevailing Wage Determinations (Index 2020-1)

Equipment Rates used in Cost Estimate* (Use current ‘Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)’ equipment rates published by Caltrans (http://www.dot.ca.gov/hq/construc/equipmnt.html) or other publicly available and verifiable local rates)
Caltrans Labor Surcharge and Equipment Rental Rates (effective 04/01/20 through 03/31/21)

Equipment Production Rates used in Cost Estimate (Use of current Caterpillar Performance Handbook or equivalent published production rates is required)
Caterpillar Performance Handbook

* Many mine sites are remote projects that require hours of travel (to and from) and sometimes require additional time to prepare for even the simplest of tasks. In accordance with Labor Code Sections 1773.1 and 1773.9, contractors are required to make travel and/or subsistence (per diem) payments to each worker to execute the work. These arrangements can be quite variable and site specific.

Attachments:
None
II. Description of Current Site Conditions

(i.e., disturbed acres, slope conditions, excavation depths, topsoil and overburden stockpiles, equipment and facilities, reclamation in progress, erosion control status, required corrective actions, etc.)

The Stewart Gravel Bar is an in-stream gravel bar consisting of aggraded sand and gravel located within the Middle Fork Eel River, approximately 7 miles southwest of Covelo and approximately one mile southeast of the unincorporated community of Dos Rios. The gravel bar contains no topsoil, overburden, trees or vegetation.

III. Description of Anticipated Site Conditions (12 months from date of estimate)

(i.e., increase of disturbed acres, increase of depth, increases in amount of equipment and/or facilities, required corrective actions, etc.)

An application for seasonal extraction of the gravel bar has been submitted. Mining will occur only on ~3 ac of the dry gravel bar surface during the summer low-flow season (June 15 to Oct 15), and will not take place within the wetted channel. A maximum of 20,000 cubic yards of material will be removed annually, with actual quantities determined based on channel morphology and gravel replenishment, and subject to review and approval by CDFW and NMFS.

Gravel extraction at the site will be consistent with the NMFS/CDFW approved skimming methodology which involves removal of gravel from selected areas of the bar in a sloped configuration which avoids creating holes or channels, and is done by using excavators, loaders, and haul trucks. Extraction will be limited to the aggraded portion of the bars, utilizing horizontal and vertical offsets for buffers from the low-flow channel.

IV. Description/Justification of Cost Increase/Decrease

New application

(add additional pages as needed)
V. PLANT STRUCTURES AND EQUIPMENT REMOVAL (use multiple sheets as needed)

Provide documentation showing that rates, prices, and wages are available locally to all persons, including the lead agency and/or the Department.

Current Site Condition:

No plant structures or equipment are currently located on the gravel bar.

Reclamation Plan Performance Standard (End Use):

All temporary stockpiles, equipment, and debris will be removed from the project area at the end of each season. If a temporary wet crossing (culvert) is utilized, the temporary culvert will be removed each year to provide an unobstructed channel for winter flows.

Describe tasks:

All equipment and debris will be removed from the project area at the end of each extraction season. If a temporary wet crossing (culvert) is utilized, an excavator and two laborers remove the temporary culvert to provide an unobstructed channel for winter flows. The culvert area is backfilled with clean sandy gravel from the gravel bar, so a clean channel is left after the culvert is removed. There will be no sediment which could enter the watercourse from this area.

Equipment on site wholly owned by operator?: ☑YES ☐NO

(If no, please provide the name/s and contact information for any lien holder)
V. PLANT STRUCTURES AND EQUIPMENT REMOVAL (use multiple sheets as needed)

Methods to be used:

A. Equipment – List equipment required to complete identified task. For large reclamation projects, separate mine areas.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Unit of Measure</th>
<th>$/Unit</th>
<th># of Units</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low bed truck and trailer (28-36 / 100)</td>
<td>Hour</td>
<td>63.37</td>
<td>8</td>
<td>506.96</td>
</tr>
<tr>
<td>Excavator* (0310)</td>
<td>Hour</td>
<td>81.43</td>
<td>4</td>
<td>325.72</td>
</tr>
<tr>
<td>Pickup (12-20)</td>
<td>Hour</td>
<td>40.16</td>
<td>4</td>
<td>160.64</td>
</tr>
</tbody>
</table>

*if temporary crossing is needed

Total Equipment Cost for this Task = $993.32

B. Labor – List all labor categories to complete identified task

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>$/Hour (prevailing wage)</th>
<th>%</th>
<th># of Hours</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low bed driver (Group 4)</td>
<td>63.02</td>
<td></td>
<td>8</td>
<td>504.16</td>
</tr>
<tr>
<td>Excavator operator* (Group 3)</td>
<td>79.14</td>
<td></td>
<td>4</td>
<td>316.56</td>
</tr>
<tr>
<td>Laborer (x2)* (Group 3)</td>
<td>55.39</td>
<td></td>
<td>8</td>
<td>443.12</td>
</tr>
</tbody>
</table>

*if temporary crossing is needed

Total Labor Cost for this Task = $1263.84

C. Demolition – List all structures and equipment to be dismantled or demolished and removed from site

<table>
<thead>
<tr>
<th>Structure/Equipment to be Removed</th>
<th>Type of Material</th>
<th>Volume/Quantity</th>
<th>Unit Cost Basis</th>
<th>Disposal Cost</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Total Materials Cost for this Task = $0

D. Total Direct Cost of Structure and Equipment Removal (Total A+B+C)

Equipment Costs + Labor Cost + Demolition Cost = $2257.16

E. Net Salvage Value* (Supported by properly prepared third party estimate, bid, or cost calculation.)

Net Salvage Value = $0

F. Total Cost of Structure and Equipment Removal (Subtract Line D from Line E)

Total Cost of Structure and Equipment Removal = $2257.16

*NOTE: Salvage value may only be used to offset the direct cost of removing the single item for which salvage value is being claimed. Salvage value shall not be used to offset any other demolition, general cleanup, or reclamation costs.
VI. PRIMARY RECLAMATION ACTIVITY

Use multiple sheets as necessary to estimate the cost of each activity required. Provide documentation showing that rates, prices, and wages are available locally to the lead agency and/or the Department if necessary.

Current Site Conditions:

In-stream gravel bar with aggraded sand and gravel that contains no topsoil, overburden, trees or vegetation.

Reclamation Plan Performance Standard (End Use):

Finished grading of the gravel bar to leave a smoothly graded condition such that no depressions or lumps greater than one-half foot higher or lower than the planned grading plane remain. The access road is regraded and Best Management Practices including water-bars and straw-mulching are used to stabilize the road surface.

Describe tasks, methods, equipment, etc.:

Decompaction, cut, fill, haul, slope reduction, compaction, grading, topsoil placement, drainage work, soil amendments, special requirements, etc. Separate sheets may be used for each task if necessary.

Grade and shape the gravel bar to fill in low areas and depressions and meet agency-approved post-extraction slopes and gravel bar configuration; Winterize access road

Provide quantities:

Overburden and topsoil, cut and fill, import or export (cubic yards), area (acres), haul distances (feet), equipment production rates (cubic yards/hour, or as applicable), etc.

3 acres of grading with a small bulldozer; installation of BMPs (e.g., water bars, straw mulch) over ~600' of access road.

(add additional pages as needed)
VI. PRIMARY RECLAMATION ACTIVITY (Finished Grading of Gravel Bar)  
(Describe Reclamation Activity Being Estimated)

(Use multiple sheets as needed)

Methods to be used:

A. Equipment – List equipment required to complete identified task. For large reclamation projects, separate mine areas.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Unit of Measure</th>
<th>$/Unit</th>
<th># of Units</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-5C Dozer (3346)</td>
<td>Hour</td>
<td>50.65</td>
<td>4</td>
<td>202.60</td>
</tr>
</tbody>
</table>

Total Equipment Cost for this Task = $202.60

B. Labor – List all labor categories to complete identified task

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>$/Hour (prevailing wage</th>
<th>%</th>
<th># of Hours</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dozer Operator (Group 5)</td>
<td>76.49</td>
<td></td>
<td>4</td>
<td>305.96</td>
</tr>
</tbody>
</table>

Total Labor Cost for this Task = $305.96

C. Materials – List all materials required to complete identified task

<table>
<thead>
<tr>
<th>Item</th>
<th>$/Unit</th>
<th>%</th>
<th>Quantity</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Materials Cost for this Task = $0

D. Total Direct Cost for this Task

Equipment Costs + Labor Cost + Materials Cost = $508.56
VI. PRIMARY RECLAMATION ACTIVITY (Winterize Access Road) (Describe Reclamation Activity Being Estimated) (use multiple sheets as needed)

Methods to be used:
A. Equipment – List equipment required to complete identified task. For large reclamation projects, separate mine areas.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Unit of Measure</th>
<th>$/Unit</th>
<th># of Units</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-5C Dozer (3346)</td>
<td>Hour</td>
<td>50.65</td>
<td>4</td>
<td>202.60</td>
</tr>
<tr>
<td>Pickup (12-20)</td>
<td>Hour</td>
<td>40.16</td>
<td>4</td>
<td>160.64</td>
</tr>
</tbody>
</table>

Total Equipment Cost for this Task = $363.24

B. Labor – List all labor categories to complete identified task

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>$/Hour (prevailing wage)</th>
<th>%</th>
<th># of Hours</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dozer Operator (Group 5)</td>
<td>76.49</td>
<td>4</td>
<td>4</td>
<td>305.96</td>
</tr>
<tr>
<td>Laborer (Group 3)</td>
<td>55.39</td>
<td>4</td>
<td>4</td>
<td>221.56</td>
</tr>
</tbody>
</table>

Total Labor Cost for this Task = $527.52

C. Materials – List all materials required to complete identified task

<table>
<thead>
<tr>
<th>Item</th>
<th>$/Unit</th>
<th>%</th>
<th>Quantity</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straw mulch/waddles</td>
<td>20</td>
<td>30</td>
<td>600</td>
<td></td>
</tr>
</tbody>
</table>

Total Materials Cost for this Task = $600

D. Total Direct Cost for this Task

Equipment Costs + Labor Cost + Materials Cost = $1490.76
VII. REVEGETATION (use multiple sheets as needed)

Provide documentation showing that rates, prices, and wages are available locally to all persons, including the lead agency and/or the Department.

Current Site Condition:

In-stream gravel bar with aggraded sand and gravel that contains no topsoil, overburden, trees or vegetation.

Reclamation Plan Performance Standard (End Use):

No revegetation proposed.

Describe tasks:

N/A
VII. REVEGETATION (use multiple sheets as needed)
Methods to be used:
A. Equipment – List equipment required to complete identified task. For large reclamation projects, separate mine areas.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Unit of Measure</th>
<th>$/Unit</th>
<th># of Units</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Total Equipment Cost for this Task = $0

B. Labor – List all labor categories to complete identified task.

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>$/Hour (prevailing wage)</th>
<th>%  # of Hours</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Total Labor Cost for this Task = $0

C. Materials – List all materials required to complete identified task

<table>
<thead>
<tr>
<th>Item/Plant Species</th>
<th>Unit of measure</th>
<th>$/Unit</th>
<th>% Quantity</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Total Materials Cost for this Task = $0

D. Total Direct Cost for this Task

Equipment Costs + Labor Cost + Materials Cost = $0
VIII. MISCELLANEOUS COSTS

Provide documentation showing that rates, prices, and wages are available locally to all persons, including the lead agency and/or the Department.

Examples of this type of cost may include temporary storage of equipment and materials off site, special one-time permits (i.e. transportation permits for extra wide overweight loads, etc.), decommissioning a process mill (i.e. decontamination of equipment), disposal of warehouse inventories, well abandonment, remediation of fueling and waste oil storage sites, septic system removal, costs to prepare closure and monitoring reports, site security, preserving potable water and maintaining utilities, etc.

<table>
<thead>
<tr>
<th>Item / Task</th>
<th>Quantity</th>
<th>$/Unit</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caltrans encroachment permit</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

Total Miscellaneous Costs = $500

IX. MONITORING COSTS

<table>
<thead>
<tr>
<th>Monitoring Task</th>
<th>$/Visit</th>
<th># of Visits/Year</th>
<th># of Monitoring Years</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual surveying</td>
<td>1000</td>
<td>2</td>
<td>1</td>
<td>2000</td>
</tr>
</tbody>
</table>

Total Monitoring Costs = $2000
X. SUMMARY OF COSTS
This section shall be used to summarize all the cost sheets in one place.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(V) Total of all Plant Structures &amp; Equipment Removal Costs</td>
<td>$2257.16</td>
</tr>
<tr>
<td>(VI) Total of all Primary Reclamation Activities Costs</td>
<td>$1999.32</td>
</tr>
<tr>
<td>(VII) Total of all Revegetation Costs</td>
<td>$0</td>
</tr>
<tr>
<td>(VIII) Total of all Miscellaneous Costs</td>
<td>$500</td>
</tr>
<tr>
<td>(IX) Total of all Monitoring Costs</td>
<td>$2000</td>
</tr>
<tr>
<td><strong>Total of Direct Costs</strong></td>
<td><strong>$6756.48</strong></td>
</tr>
</tbody>
</table>

XI. Supervision / Profit & Overhead / Contingencies / Mobilization

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Supervision (7.2%)</td>
<td>$486.47</td>
</tr>
<tr>
<td>(B) Profit/Overhead (15.2%)</td>
<td>$1026.98</td>
</tr>
<tr>
<td>(C) Contingencies (10%)</td>
<td>$675.65</td>
</tr>
<tr>
<td>(D) Mobilization (5%)</td>
<td>$337.82</td>
</tr>
<tr>
<td><strong>Total of Indirect Costs</strong></td>
<td><strong>$2526.92</strong></td>
</tr>
<tr>
<td><strong>Total of Direct and Indirect Costs</strong></td>
<td><strong>$9283.40</strong></td>
</tr>
<tr>
<td>(E) Lead Agency and/or Dept. of Conservation Administrative Costs</td>
<td>$1392.51</td>
</tr>
</tbody>
</table>

**Total Estimated Cost of Reclamation** $10675.91
APPENDIX J

CONDITIONS OF APPROVAL (RESERVED)
CASE: REC 2020-0001
OWNER: 51110 Covelo, LLC
APN: 035-030-49
APLCT: Wylatti Resource Management
AGENT: Jordan Main
ADDRESS: 51110 Covelo Road, Dos Rios
CASE: REC 2020-0001
OWNER: 51110 Covelo, LLC
APN: 035-030-49
APLCT: Wylatti Resource Management
AGENT: Jordan Main
ADDRESS: 51110 Covelo Road, Dos Rios

NATIONAL WETLANDS INVENTORY
Riverine

Assessors Parcels

WETLANDS
CASE: REC 2020-0001
OWNER: 51110 Covelo, LLC
APN: 035-030-49
APLCT: Wylatti Resource Management
AGENT: Jordan Main
ADDRESS: 51110 Covelo Road, Dos Rios

MENDOCINO COUNTY PLANNING DEPARTMENT - 6/4/2020

FARMLAND CLASSIFICATIONS

- Grazing Land (G)
- Non-Ag & Natural Vegetation (nv)
- Rural Residential & Rural Commercial (R)

Assessors Parcels
CASE: REC 2020-0001
OWNER: 5110 Cvelo, LLC
APN: 035-030-49
APLCT: Wylatti Resource Management
AGENT: Jordan Main
ADDRESS: 5110 Cvelo Road, Dos Rios

Naturally Occurring Asbestos
Ultramafic Rock
Eastern Serpentine Soils

EASTERN SOIL CLASSES
CASE: REC 2020-0001
OWNER: 51110 Covelo, LLC
APN: 035-030-49
APLCT: Wylatti Resource Management
AGENT: Jordan Main
ADDRESS: 51110 Covelo Road, Dos Rios

Williamson Act 2018
Non-Prime Ag 2018
Assessors Parcels