



**AGENDA ITEM TRANSMITTAL**

TO: HUMBOLDT COUNTY PLANNING COMMISSION

FROM: Kirk A. Girard, Director of Community Development Services

HEARING DATE: August 6, 2009	SUBJECT: RENEWAL OF CONDITIONAL USE/SURFACE MINING PERMITS, APPROVAL OF RECLAMATION PLAN AND REVIEW OF FINANCIAL COST ESTIMATES	CONTACT: Anita Punla
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Before you is the following:

**PROJECT:** Renewal of Conditional Use/ Surface Mining Permits, approval of Reclamation Plan and review of Financial Cost Estimates for an existing in-stream mining operation on the northern bank of the Van Duzen River located approximately two miles east of the intersection of State Highway 36 with Redwood House Road. The operation proposes the annual extraction of up to 3,000 cubic yards of river-run gravel annually or 9,000 cubic yards once every three years for County road maintenance. The maximum extraction amount will be 45,000 cubic yards over the 15 year permit term. The permit term will expire in October 4, 2021.

The mining operation was originally permitted in 1986 and extended in 1997 for the same volume and frequency of extraction. There has been no extraction at the site since 1997; however, permanent monitoring cross-sections were established on the bar in 1996 and annual cross sections have been surveyed since that time. Annual volume, location and extraction method will be consistent with the recommendations of CHERT and other regulatory agencies.

Equipment includes bulldozer, front-end loader, excavator and dump trucks. The bar will be accessed via the designated haul road on the north side of the bar. Gravel will be temporarily stockpiled on the bar, then loaded for transport to off-site stockpile locations for processing. Gravel extraction will be intermittent and conducted between September 16<sup>th</sup> and November 1<sup>st</sup>, with each extraction period lasting approximately two to three weeks.

**PROJECT LOCATION:** The project is located in Humboldt County, in the Carlotta area, on the south side of State Highway 36, approximately 0.58 miles southeast from the intersection of Keller Road and State Highway 36, on the property known to be in Section 16 Township 01 North Range 02 East.

**PRESENT PLAN DESIGNATIONS:** Timber Production (T) Framework Plan (FRWK).

**PRESENT ZONING:** Timberland Production Zone (TPZ).

**ASSESSOR PARCEL NUMBERS:** 209-201-10

**APPLICANT**

Humboldt County Dept. of Public Works  
c/o Doug Dinsmore  
1106 Second Street  
Eureka, CA 95501  
Tel: 445-7741

**OWNER(S)**

Humboldt Redwood Company LLC  
125 Main Street  
Scotia, CA 95565  
Tel: 707-764-4472

**AGENT**

**ENVIRONMENTAL REVIEW:**

A Mitigated Negative Declaration was adopted in 1997 with the approval of the extension. A Subsequent Mitigated Negative Declaration is proposed for adoption with the current project.

**MAJOR ISSUES**

Issues related to surface mining

**STATE APPEAL STATUS:**

Project is not appealable to the California Coastal Commission.

## RECOMMENDED COMMISSION ACTION and EXECUTIVE SUMMARY

### STAFF RECOMMENDATIONS

1. Describe the application as a Public Hearing;
2. Allow staff to present the project;
3. Open the public hearing;
4. After receiving testimony, make a motion(s) to:

*"I move to re-adopt the Mitigated Negative Declaration and make all of the required findings, based on evidence in the staff report and public testimony, and to approve the project as described in the Agenda Item Transmittal, subject to the recommended conditions of approval."*

### EXECUTIVE SUMMARY

The project is a request for a renewal of Conditional Use/Surface Mining Permits, approval of the Reclamation Plan and review of financial cost estimates for an existing in-stream mining operation on the Pacific Lumber Bar in the Van Duzen River. The operation proposes the annual extraction of up to 3,000 cubic yards of river-run gravel annually or 9,000 cubic yards once every three years for County road maintenance. The maximum extraction amount will be 45,000 cubic yards over the 15 year permit term. The County has a License Agreement with the property owner for the gravel extraction.

Operations include excavation, sorting, crushing and stockpiling rock from the gravel bar. Extraction may occur as frequently as annually with the average annual extraction amount not to exceed 3,000 cubic yards. The permit term is 15 years and will expire October 4, 2021.

The Pacific Lumber Bar – Van Duzen is located approximately 8.5 miles east of the community of Carlotta. The bar is located on the Van Duzen River between Van Duzen County Park and Grizzly Creek Redwoods State Park. The site is approximately 19 acres in size, and is immediately south of Highway 36 Bridge #4-94. The site is planned Timber Production and zoned Timberland Production Zone. The surrounding area is steep hills forested with redwoods and Douglas fir. The river is sinuous with intermittent alternating gravel bars and occasional canyon walls. Land uses in the area consist of timber production and public recreation with rural residential development. The bar will be accessed via the designated haul road on the north side of the bar. There are no other extraction sites in the project area.

Traditional skimming is the preferred extraction method for this site, based on the topography and size of the bar. Other extraction methods that may be used, but the volume, location, and extraction method will be consistent with the recommendations made by the County of Humboldt Extraction Review Team (CHERT) and other regulatory agencies.

Gravel will be extracted using heavy equipment such as a bulldozer, front-end loader, excavator and/or dump trucks. Gravel will be removed and placed in temporary piles on the bar. The piled gravel will be loaded into dump trucks for transport to off-site stockpile locations for processing. Gravel extractions will be conducted between September 16<sup>th</sup> and November 1<sup>st</sup> to avoid the nesting periods for the northern spotted owl and marbled murrelet, and to ensure completion of work prior to the winter rainy season. The work period for each extraction will be approximately two to three weeks.

The site will be reclaimed according to permit requirements and the recommendations of CHERT and regulating agencies. This includes removing all equipment and grading the extraction area to drain freely and fill in depressions. Temporary stockpiles will be removed; haul roads will be scarified to reduce compaction.

### *Project History*

Operations were originally permitted in September 1986 for the annual extraction of 3,000 cubic yards. In 1997, the County extended the CUP for an additional 10 years. The Humboldt County Department of Public Works has not performed an extraction at this site since the permit was extended in 1997. However, permanent monitoring cross sections were established on the bar in 1996. These cross sections have been surveyed annually since that time.

In July 1992, the Humboldt County Board of Supervisors certified the *Final Program Environmental Impact Report on Gravel Removal from the Lower Eel River*. The document addressed aggregate extraction activities on the lower stretches of the Eel and Van Duzen Rivers. This document provided the basis for the general assessment of the effects of sand and gravel mining within these watersheds, establishing basin-wide material allotments, extraction standards to prevent stream channel degradation, and mitigation measures for feasible lessening of adverse mining effects. The PEIR also established the precedent for requiring a series of supplemental documents to address the unique, differential or site-specific effects associated with any subsequent individual mining operations covered under that document. In 1996, the County of Humboldt Extraction Review Team (CHERT) was established for annual review and monitoring of surface mining operations on these waterways. The Mitigated Negative Declaration adopted by the Commission with the 1996 extension summarized the effects of the project, the feasible mitigation measures, and discussed the monitoring program to assure the efficacy of the measures.

### *Biological Resources*

The river bar is bordered by deposits consisting of unconsolidated gravel, sand, silt and clay deposited on flat sandstone bedrock. The upstream contributing watersheds consist of greywacke, sandstone, volcanic rock and chert. These are the rocks that are probably being transported during floods as bedload and are the type of rocks that would be removed from the river bar.

The Van Duzen River is identified as a wild and scenic river in the project vicinity and including the project area. The project is subject to the Wild and Scenic Rivers Act. The gravel bar is situated between the Van Duzen County Park and Grizzly Creek Redwoods State Park and the stretch of Highway 36 between the two parks is considered scenic with the river visible along the highway and the bar visible from Highway 36 Bridge #4-94. Operations are intermittent and temporary. When mining is complete, the bar is reclaimed to its natural conditions.

Vegetation on the gravel bar is sparse. The California Natural Diversity Database contains records for five rare or sensitive plant species on the area. The project area contains habitat for three: *Running Pine*, *Howell's montia* and *Seacoast Ragwort*. In 1996, a vegetation survey was performed as a requirement of the Corps of Engineers Letter of Permission Procedure. None of the plants were observed in the project area. A Rare Plant Survey was conducted by Suzanne Issacs of the Humboldt Fish Action Council (HFAC) on April 9, 2010. Similarly, no special status species were found at this site, therefore, no further recommendations regarding rare plants at this site were necessary.

### *Wildlife*

Some wildlife species are listed or have the critical habitat designated after the date of the 1997 Mitigated Negative Declaration. *Coho salmon*, *Chinook salmon* and *steelhead trout* are known to inhabit the Van Duzen River. The river provides habitat for salmonids up to where Eaton Rough Falls is a barrier to upstream migration. In general, salmonid habitat in the river is degraded due to low holding pool frequency, high water temperatures and subsurface flows as a result of excessive sediment. Fish habitat mapping was performed on the Van Duzen River along the gravel bar in 2003. It appears that the gravel bar reach supports adult and juvenile salmonid migration, and may provide juvenile salmonid rearing habitat, especially steelhead, in the pools.

Northern spotted owls prefer old-growth or mixed-age stands of mature and old-growth trees. Owls nest in large live trees with broken tops or cavities. NSO are known to inhabit the project vicinity. The CNDDDB

contains seven records within 1.32 miles of the Highway 36 Bridge adjacent to the gravel bar. To avoid the likelihood of incidental take of the species, operations will be restricted from February 1<sup>st</sup> to July 10<sup>th</sup> of each year per the request of the United States Fish and Wildlife Service (USFWS).

Marbled murrelets are long-lived seabirds that spend of their life in the marine environment, but fly inland to nest. Nesting generally occurs in old-growth forests. Marbled murrelets are known to inhabit the areas surrounding the gravel bar. The CNDDDB contains six records within 0.79 mile of the gravel bar. Also, an approximate 334.7 acres of designated marbled murrelet critical habitat can be found immediately north of the gravel bar. Due to the distance to old-growth and the presence of Highway 36, a seasonal restriction for marbled murrelets is not required.

Review of occurrences of rare and sensitive wildlife species in 2007 revealed a total of nine species of wildlife, none of which have recorded occurrences in the project area. The project area and/or vicinity contain habitat for all nine species: *Cooper's Hawk*, *Northwestern Pond Turtle*, *Sonoma Tree Vole*, *Townsend's Big-eared Bat*, *Long-legged Myotis*, *Yuma Myotis*, *Osprey*, *Northern Red-legged Frog* and *Foothill Yellow-legged Frog*.

Extraction will be consistent with the recommendations of CHERT and other regulatory agencies including Corps of Engineers, Fish and Game and NMFS. Individual extraction plans will be reviewed using estimated mean annual (sediment) recruitment to determine the volume of gravel for extraction. Recommendations on volumes and extraction designs ensure protection of fish and fish habitat. Gravel extraction will take place during daylight hours in late summer, after September 15<sup>th</sup> and before November 1<sup>st</sup>, outside the nesting season for the NSO and marbled murrelets. Disruption of wildlife activities will be temporary and short-term. Humboldt County Public Works will establish and maintain a minimum 150' setback between the outer edge of all gravel stockpiles and the wetted channel to avoid any further impacts to wildlife species.

The project will be subject to extensive local, state and federal regulation. In any given year, project extraction volumes, locations and methods will be submitted by the applicant for approval by local, state and federal agencies, including the County of Humboldt, Department of Fish and Game, CalFire, Office of Mine Reclamation and the Army Corps of Engineers.

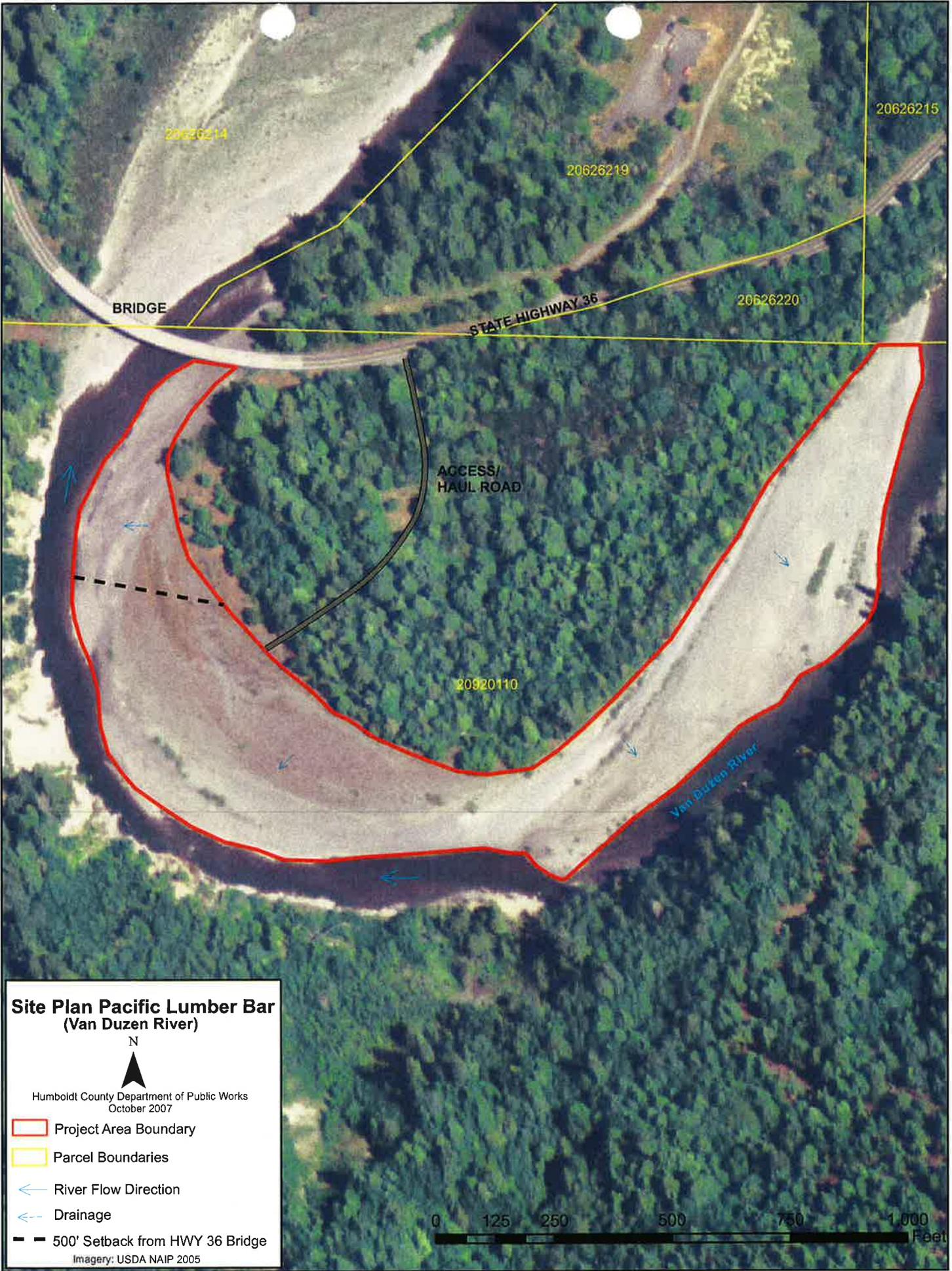
The actual and potential environmental effects reviewed by County staff and referral agencies in relation to the project include: noise and hazards, traffic, dust, safety concerns, water quality degradation, impacts to sensitive habitat areas, and depreciation in open space aesthetics. Staff supports approval of the application because, as mitigated and conditioned, it is anticipated to have less than significant impact on residential uses; and potential impacts to resources have been addressed through mitigation and operations restrictions. Based upon the operational and performance standards included in the mining operation and reclamation plan, staff and the referral agencies have concluded that the operation can be conducted in a safe and appropriate manner provided these standards are made conditions of project approval.

## ALTERNATIVES

1. The Planning Commission could conclude that the findings to approve the project cannot be made and deny the project. Staff does not support this option because staff believes that the project as designed and conditioned will substantially conform to requirements for this use.
2. The Planning Commission could conclude that the environmental document, its findings, recommendations, mitigation measures or monitoring program do not meet the requirements of the California Environmental Quality Act and local ordinances. The Commission could, during public hearing, revise these documents to address any failings, or the Commission could continue consideration of the project and direct staff to amend the document as deemed necessary. As stated herein, staff believes the document is in conformance and supports its certification.

**Project Maps**

**(Also see Attachment 4: Mining and Reclamation Plans)**



**Site Plan Pacific Lumber Bar  
(Van Duzen River)**



Humboldt County Department of Public Works  
October 2007

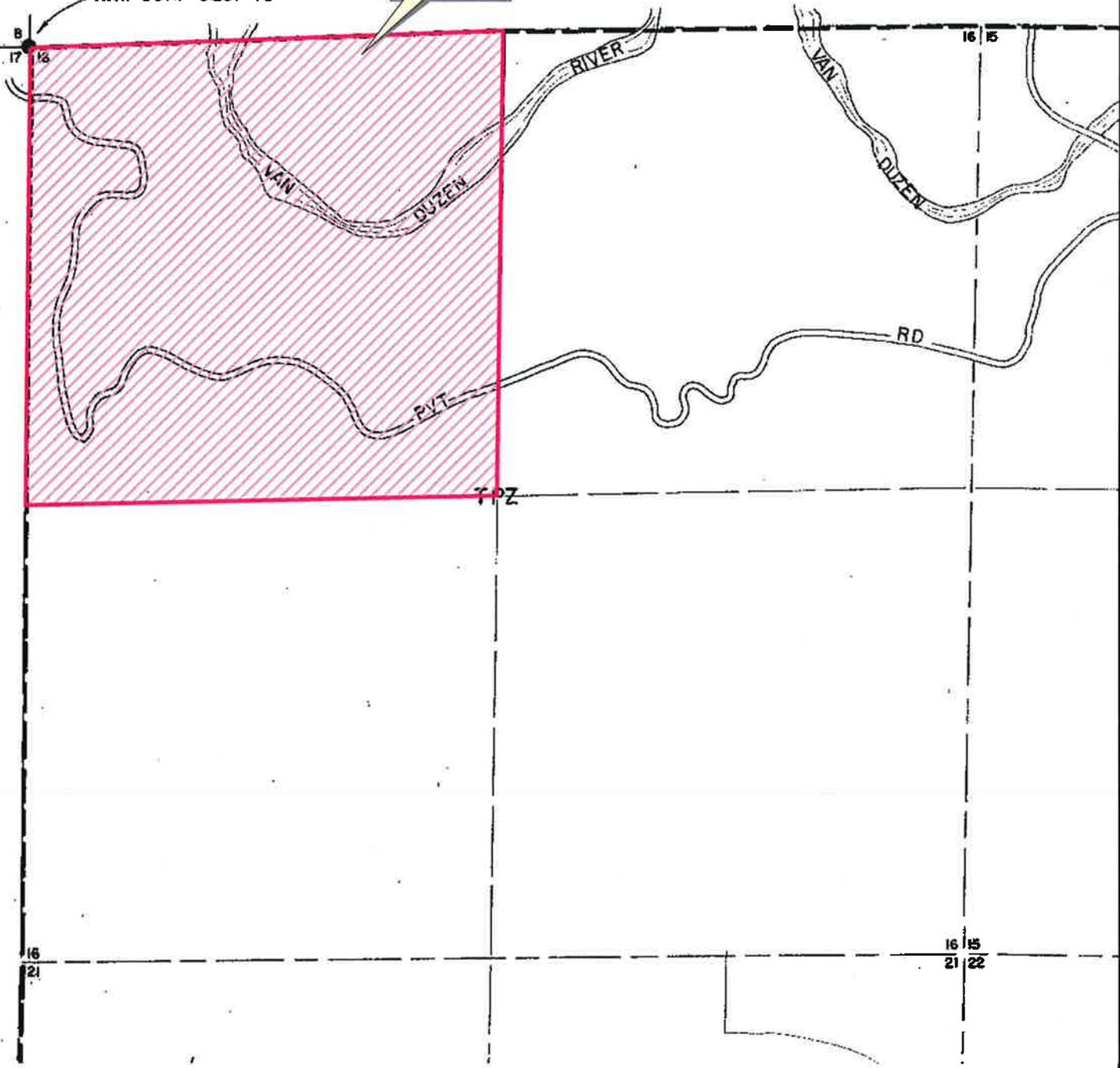
- Project Area Boundary
  - Parcel Boundaries
  - ← River Flow Direction
  - ↔ Drainage
  - 500' Setback from HWY 36 Bridge
- Imagery: USDA NAIP 2005



T.1N. - R.2E.

N.W. COR. SEC. 16

PROJECT SITE



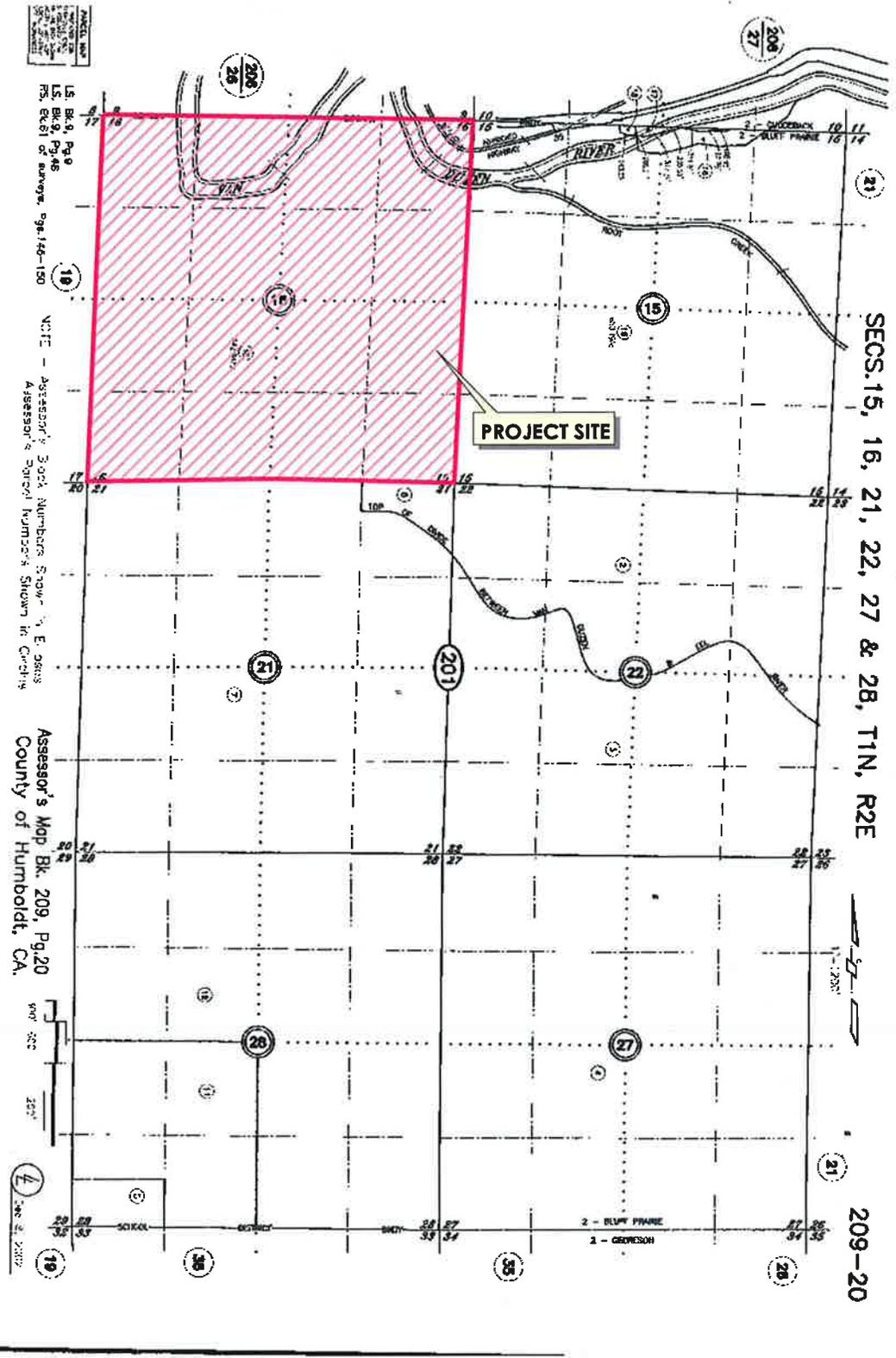
PROJECT SITE = 

**ZONING MAP**

**PROPOSED HUMBOLDT COUNTY,  
 DEPARTMENT OF PUBLIC WORKS  
 CONDITIONAL USE PERMIT &  
 SURFACE MINING PERMIT  
 CARLOTTA AREA  
 CUP-37-86X/SMR-03-86X  
 APN: 209-201-10  
 T01N R02E S16 H B & M**



MAP NOT TO SCALE



PROJECT MAP  
 15, BK. 9, Pg. 9  
 16, BK. 9, Pg. 16  
 21, BK. 9, Pg. 21  
 22, BK. 9, Pg. 22  
 27, BK. 9, Pg. 27  
 28, BK. 9, Pg. 28  
 No. East of survey, 09/1/20-150

NOTE - Assessor's Book Numbers Show  
 Assessor's Parcel Numbers Shown in Circles

Assessor's Map Bk. 209, Pg. 20  
 County of Humboldt, CA

APN: 209-201-10  
 209-20

PROJECT SITE

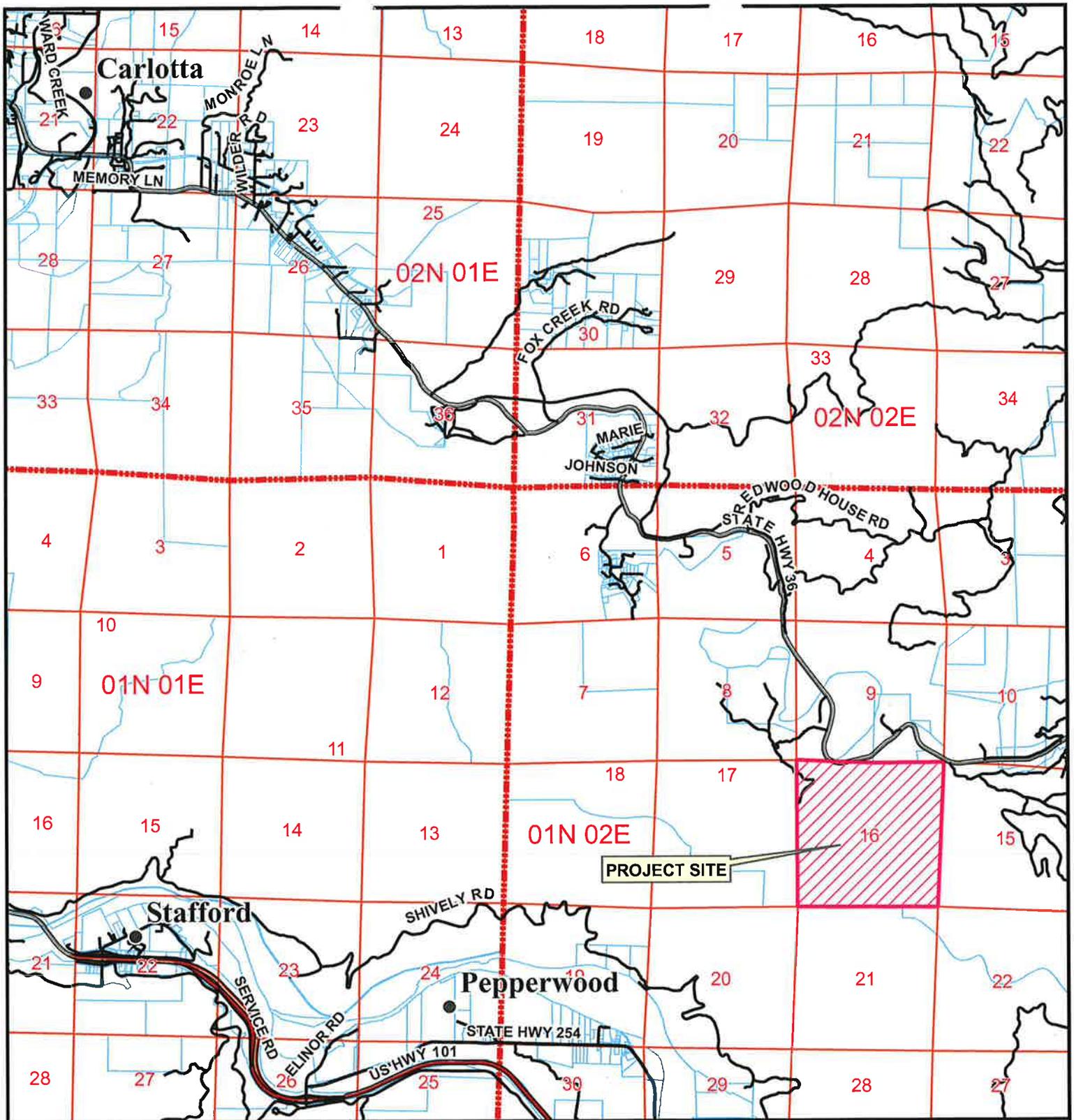
SECS. 15, 16, 21, 22, 27 & 28, T1N, R2E

209-20

PROJECT SITE = 

**ASSESSOR PARCEL MAP**

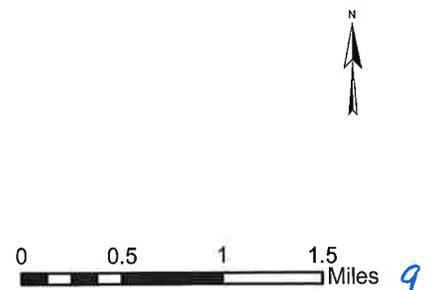
**PROPOSED HUMBOLDT COUNTY,  
 DEPARTMENT OF PUBLIC WORKS  
 CONDITIONAL USE PERMIT &  
 SURFACE MINING PERMIT  
 CARLOTTA AREA  
 CUP-37-86X/SMR-03-86X  
 APN: 209-201-10  
 T01N R02E S16 H B & M**



**LOCATION MAP**

Project Site = 

**PROPOSED HUMBOLDT COUNTY,  
DEPARTMENT OF PUBLIC WORKS,  
CONDITIONAL USE PERMIT &  
SURFACE MINING PERMIT  
CARLOTTA AREA  
CUP-37-86X/SMR-03-86X  
APN: 209-201-10  
T01N R02E S16 H B & M**



**RESOLUTION OF THE PLANNING COMMISSION  
OF THE COUNTY OF HUMBOLDT**

**Resolution Number – 10-31**

Making the required findings for certifying compliance with The California Environmental Quality Act and conditionally approving the

**HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS CONDITIONAL USE/SURFACE MINING**  
Permits/Reclamation Plan application

**CASE NUMBERS CUP-37-86X, SMR-03-86X; ASSESSOR PARCEL (FILE) NUMBER 209-201-10**

**WHEREAS**, the County of Humboldt Public Works Department submitted an application and evidence in support of approving a Conditional Use/Surface Mining Permit, Reclamation Plan and Financial Assurance Cost Estimate application for an existing in-stream mining operation on the Pacific Lumber Bar – Van Duzen River for extraction of up to 3,000 cubic yards of river-run gravel annually or 9,000 cubic yards once every three years for County road maintenance. The maximum extraction amount will be 45,000 cubic yards with the 15 year permit term to expire October 4, 2021; and

**WHEREAS**, the County Planning Division has reviewed the submitted application and evidence and has referred the application and evidence to involved reviewing agencies for site inspections, comments and recommendations; and

**WHEREAS**, the project is subject to environmental review pursuant to the California Environmental Quality Act (CEQA); and

**WHEREAS**, Attachment 2 in the Planning Division staff report includes evidence in support of making all of the required findings for approving the proposed surface mining operation and reclamation plan;

**NOW, THEREFORE**, be it resolved, determined, and ordered by the Planning Commission that:

1. The proposed surface mining operation and reclamation plan has potential significant effects on the environment, which, with the inclusion of specific mitigation measures, may be rendered less than significant. Accordingly, a Subsequent Mitigated Negative Declaration is adopted pursuant to the CEQA Guidelines.
2. The Planning Commission makes the findings in Attachment 2 of the Planning Division staff report for Case Numbers CUP-37-86X, SMR-03-86X, based on the submitted evidence.
3. The Planning Commission conditionally approves the proposed surface mining operation and reclamation plan as recommended in the Planning Division staff report for Case Numbers CUP-37-86X, SMR-03-86X.

Adopted after review and consideration of all the evidence on August 5, 2010. The motion was made by Commissioner Mayo and seconded by Commissioner Nelson.

AYES: Commissioners: Emad, Gearheart  
ABSTAIN: Commissioners: Smith  
ABSENT: Commissioners: Faust and Kreb

I, Kirk Girard, Secretary to the Planning Commission of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above entitled matter by said Commission at a meeting held on the date noted above.

Kirk Girard, Director of Community Development Services

By: Siana Watts  
Siana Watts, Clerk

## ATTACHMENT 1

### \*REVISED CONDITIONS OF APPROVAL

APPROVAL OF THE SURFACE MINING PERMIT, CONDITIONAL USE PERMIT, AND RECLAMATION PLAN IS CONDITIONED ON THE FOLLOWING TERMS AND REQUIREMENTS:

**A. Conditions of Approval:**

1. Financial Assurances to ensure reclamation is performed in accordance with the approved reclamation plan shall be entered into with the County of Humboldt and the State Geologist per PRC Section 2773.1.
2. The applicant shall submit a "wet signed" statement naming the person or persons who accept responsibility for reclaiming the mined lands in accordance with the approved reclamation plan and PRC Section 2772.
3. The applicant shall comply with the requirements of the Department of Public Works as set forth in the memo dated October 13, 2007.

The applicant shall submit a letter to the Planning Division from the Department of Public Works stating that this condition has been addressed to their satisfaction as required prior to initiation of commercial quarry operations.

4. The applicant shall reimburse the Planning Division for any processing costs that exceed the application deposit.
5. If applicable, pursuant to the California Code of Regulations Section 3697, the owner or operator of a newly-permitted operation shall submit an initial report and reporting fee to the Department of Conservation (DOC) after permit approval. The DOC has developed the New Mining Operation Report form; please contact DOC at (916) 323-9198 to obtain a form. The condition shall be satisfied by submitting to the County the completed yellow Lead Agency copy of the New Mining Operation Report form.
6. The General Plan User Fee of \$650 for Industrial Development must be paid to the Humboldt County Community Development Services Department.
7. **Within five (5) days of the effective date of the approval of this permit**, the applicant shall submit a check to the Planning Division payable to the Humboldt County Recorder in the amount of \$2,043.00. Pursuant to Section 711.4 of the Fish and Game Code, the amount includes the Department of Fish and Game (DFG) fee plus the document handling fee. Alternatively, the applicant may contact DFG by phone at (916) 651-0603 or through the DFG website at [www.dfg.ca.gov](http://www.dfg.ca.gov) for a determination stating the project will have *no effect* on fish and wildlife. If DFG concurs, a form will be provided exempting the project from the \$1,993.00 fee payment requirement. In this instance, only a copy of the DFG form and the \$50.00 handling fee is required.
8. The project shall comply with the requirements of the US Army Corps of Engineers, NOAA Fisheries, US Department of Fish and Wildlife, California Department of Fish and Game, North Coast Air Quality Management District, and other County, State and Federal agencies having jurisdiction, and shall submit written documentation to Community Development Services that the clearances from agencies have been obtained.
9. The project shall be consistent with the Streamside Management Area Ordinance and with the standards and policies set forth in the General Plan, *Sensitive and Critical Habitats*. Furthermore, no debris, soil, silt, or other such foreign substance shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area.

10. The Reclamation Plan shall be revised to incorporate the recommendations set forth by the Department of Conservation and Department of Fish and Game as addressed in the Humboldt County Department of Public Works response letter dated January 13, 2005 and June 1, 2009.
11. The Reclamation Plan shall be revised to incorporate the recommendations set forth by the North Coast Unified Air Quality Management District as addressed in the Humboldt County Department of Public Works response letter dated January 22, 2008.
12. The Reclamation Plan shall be revised to incorporate the recommendations set forth by the Department of Transportation as addressed in the Humboldt County Department of Public Works response letter dated September 3, 2008.
13. The project shall be revised to incorporate the recommendations set forth by Ken Hoffman, United States Fish & Wildlife Services, in the email dated March 18, 2010.
14. The project shall be consistent with all mitigation measures as identified in the Mitigated Negative Declaration and Subsequent Mitigated Negative Declaration.
15. The project shall be consistent with the requirements of the North Coast Unified Air Quality Management District, including the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations.
16. The Conditions of Approval for the 1997 approval shall remain in full force and effect except as specifically revised by the current approval.
17. The applicant shall record a *Notice of Reclamation Plan Approval* for the approved reclamation plan at the Humboldt County Recorder's Office in accordance and PRC Section 2772.7.
18. Applicant shall adhere to the *Letter of Intent*, dated March 17, 2010, signed by Doug Dinsmore, indicating the Department of Public Works will establish and maintain a minimum 150 foot setback between the outboard edge of all gravel stockpiles and the edge of the wetted channel.

**B. Operation Restrictions:**

1. The mining operator shall adhere to the approved reclamation plan and mitigation monitoring program, as applied to the mining extraction site proper, and other support and ancillary uses and facilities (i.e., stockpiles, and the maintenance of access road drainage culverts). This shall include the operations included herein setting forth routine (i.e., non-emergency) days and hours of operations. The reclamation plan shall be reviewed annually by the operator and county staff to assure that any required reclamation is completed and is in compliance with the approved reclamation plan. Any substantial changes to the reclamation plan, including changes necessitated or required by changes in the environment, may require review by the Division of Mines and Geology, Reclamation Program, and approval by the County.
2. The applicants/operators shall abide at all times with the Humboldt County Surface Mining Regulations, and any revisions thereto, and the State Surface Mining and Reclamation Act, and any revisions thereto.
3. The terms of this conditional use permit and reclamation plan is fifteen (15) years and shall expire October 4, 2021. The applicant may renew the use permit and/or reclamation plan by submitting appropriate forms and fees in effect at the time of renewal.
4. The operator shall be responsible for submitting to the Office of Mine Reclamation, on forms provided by the Office of Mine Reclamation, an annual report per PRC Section 2207.
5. Hauling along public roads shall be limited to "legal loads" only. "Overweight loads" must have prior approval from the Department of Public Works and/or CalTrans.

6. Any and all portable toilet facilities shall be adequately maintained by a licensed septic tank pumper to the satisfaction of the County Department of Environmental Health.
7. All surface mining operations involving unpaved roads shall adhere to the provisions for control of dust emissions from roads.
8. The operator shall incorporate Best Management Practices and shall maintain erosion control and sedimentation measures as described in the Reclamation Plan and amendments thereto and as required by regulating agencies.
9. No new access roads shall be constructed without prior approvals.
10. No riparian vegetation shall be removed without prior approvals.
11. Hours of Operations shall typically be Monday through Friday during daylight hours, generally 7:00 am to 6:00 pm; however, occasionally start-up may occur as early as 6:30 am for specific jobs. These hours do not apply to emergency road repair situations. Extraction activities will be conducted between September 16<sup>th</sup> and November 1<sup>st</sup> to minimize impact to wildlife, and avoid the nesting periods for the northern spotted owl and marbled murrelet, Any substantial changes to the hours of operation shall be pre-approved by the Planning Department.
12. Operational noise levels and particulate settlement patterns shall be consistent with County standards and requirements of regulating agencies, and shall be measured by the operator upon demand by the County Planning Director, as necessary, to verify that the project is operating at environmentally acceptable levels per Humboldt County Code.
13. The applicants shall secure and abide by all permits and agreements necessary for gravel operations.

**C. Informational Notes:**

1. Surface mining operations are regulated by various different state and federal agencies. Each of these agencies is responsible for regulating a specific aspect of the mining operation. For example, the Department of Fish and Game is responsible for assuring that fish and wildlife resources are not negatively impacted by a surface mining operation; the Army Corps of Engineers is responsible for regulating discharges into navigable waters of the United States; the Regional Water Control Board oversees waste discharge requirements; CalTrans assures that no State bridges or highways are negatively affected by mining operations, and; the State Lands Commission regulates activities on lands within the public trust. Other agencies which may have jurisdiction over a surface mining operation include but are not limited to, California Department of Conservation, Division of Mines & Geology; North Coast Unified Air Quality Management District; California Coastal Commission; National Marine Fisheries; United States Fish & Wildlife Service; and CalOSHA.

The operator is responsible for contacting all of the above regulating agencies to assure conformance by the surface mining operation with these agencies regulations.

2. The Financial Assurance shall be subject to annual review and adjustments to account for: a) changes in the costs of reclamation due to inflation; b) lands reclaimed in the previous year and not involving future reclamation; and c) additional lands requiring reclamation in the next year.
3. Building permits are required for all equipment structural pads/foundation buildings, and all structural concrete work (i.e. scales) that are not pre-existing.
4. A National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity is required unless the applicant demonstrates

that there is no storm water runoff from the quarry site. If there are such discharges the applicant shall contact the Regional Water Quality Control Board for permitting requirements.

5. If the project involves the storage and handling of hazardous materials, the applicant shall submit and have approved by the Division of Environmental Health (DEH) a hazardous materials business plan and comply with the conditions of DEH.

## ATTACHMENT 2

### STAFF ANALYSIS OF THE EVIDENCE SUPPORTING THE REQUIRED FINDINGS

#### REQUIRED FINDINGS

To approve the project, the Planning Commission must determine that the applicants have submitted evidence in support of making all of the following required findings:

#### 1. **CONDITIONAL USE PERMIT**

Section 312-17, Title III, Division 1 of the Humboldt County Code (H.C.C.) specifies the findings that must be made to approve the Conditional Use Permit. Basically, the Hearing Officer may grant the permit if, on the basis of the application, investigation and submitted evidence, the following findings are made:

- A. The proposed development is in conformance with the County General Plan;
- B. The proposed development is consistent with the purposes of the existing zone in which the site is located;
- C. The proposed development conforms with all applicable standards and requirements of these regulations; and
- D. The proposed development and conditions under which it may be operated or maintained will not be detrimental to the public health, safety, or welfare, or materially injurious to properties or improvements in the vicinity.

#### 2. **SURFACE MINING RECLAMATION PLANS**

The Surface Mining and Reclamation Act (SMARA), as codified in the California Public Resources Code (PRC) commencing at Section 2700, and as locally implemented in HCC Sections 391-1 *et seq.* and 313.61.2 *et seq.* establish the administrative basis for the regulation of surface mining and reclamation activities. In addition to findings associated with the review of the mineral extraction activities undertaken in the use permit process, specific criteria for reclamation plans overseeing the rehabilitation and closure of the mining site apply. Generally, reclamation plans must be: a) applicable to a specific piece of property or properties; b) based upon the character of the surrounding area and such characteristics of the property as type of overburden, soil stability, topography, geology, climate, stream characteristics, and principal mineral commodities; and c) establish site-specific criteria for evaluating compliance with the approved reclamation plan, including topography, revegetation, and sediment and erosion control. In addition:

- A. The reclamation plan shall meet the form and content requirements of State law and local ordinance.

#### 3. **FINANCIAL ASSURANCES**

In addition to the specific techniques and methods to be used to reclaim the mining site, either annually or at the end of the permitted extraction period, mining concerns must demonstrate the financial ability to carry out the reclamation plan. PRC §2770, §2773.1, related administrative guidelines of the Department of Conservation's State Mining and Geology Board (California Code of Regulations §§ 3800 - 3806.2), and local implementing ordinances direct the lead agency to require that the financial assurance:

- A. Comply with the established form, term, and monetary adequacy requirements, as periodically reviewed, to assure the reclamation will be completed should default by the responsible party occur.

**4. ENVIRONMENTAL REVIEW**

Pursuant to the California Environmental Quality Act (CEQA) as codified in Public Resources Code (PRC) §21000 *et seq.* and California Code of Regulations (CCR) §15000 *et seq.*, one of the following findings must be made prior to the approval of any development subject to CEQA:

- A. The project is categorically or statutorily exempted; or
- B. There is no substantial evidence that the project will have a significant effect on the environment and a Negative Declaration has been prepared; or
- C. The project has had an Environmental Impact Report (EIR) prepared and all significant environmental effects have been eliminated or substantially lessened, or the required findings in CCR §15091 (statement of overriding considerations) have been made.

**STAFF ANALYSIS**

**1. CONDITIONAL USE PERMIT**

- A. General Plan Conformance

The following table identifies the evidence, which supports finding that the proposed surface mining operation is in conformance with all applicable policies and standards in Chapters 2-4 of the Humboldt County Framework General Plan (FRWK).

<i>Plan Section</i>	<i>Policy / Requirement Summary</i>	<i>Supporting Evidence</i>
Timber Production	The character of these designations is described as industrial areas with uses compatible with, as well as dependent on, close proximity to resources, and agricultural areas.	Surface mining is not specifically identified as a primary and compatible use. However, in previous project reviews, the County has found surface mining to be a compatible temporary use. The acreage to be utilized will eventually be reclaimed and reverted to land use consistent with the plan designation.
§2530 Mineral and Energy Resources	Policies and standards recognize the importance of mining and energy production to local and regional economy, and set criteria and restrictions to ensure health, safety and general welfare of persons, property and public resources.	Many of these policies and standards have been incorporated into the implementing Surface Mining Ordinance as performance standards required of all mining activities.
§2553.5 Remote Rural Development	Development should be designed to minimize erosion and sedimentation.	Project includes measures to capture, filter and contain site runoff and minimize erosion (see Reclamation Plan).
§3210 Geologic Hazards	Development should be sited and designed to avoid and minimize the exposure of persons and property to hazards associated with seismic shaking, highly erosive, soils, and unstable topography.	The project site is in an area rated "low to moderate instability". The mining operation is required to comply with guidelines and requirements established by the California Occupational Health and Safety Administration (OSHA) and the Office of Mine Reclamation (OMR).
§3220 Flood Hazards	Development should be sited and designed to avoid and minimize the exposure of persons and property to hazards associated with river and coastal flooding, and inundation due to dam failure.	The project site is located on the Van Duzen River approximately 8.5 miles east of Carlotta on State Highway 36. The project includes an assessment of flood hazards.

<i>Plan Section</i>	<i>Policy / Requirement Summary</i>	<i>Supporting Evidence</i>
<p>§3230 Wildfire Hazards</p>	<p>Development should be sited and designed to avoid and minimize the exposure of persons and property to wildfire hazards or, conversely, to prevent risks of fire in timberlands and other resources areas from rural residential development.</p>	<p>The project site is in an area of “high wildfire” rating. Fire jurisdiction is by the CalFire. Mining operations are a source of potential fire hazard from vehicles and heavy equipment operations. Accordingly, the project is conditioned to follow established guidelines and requirements for such industrial activities (e.g., use of spark arresters on vehicles, on-site availability of fire suppression water supply and fire fighting tools).</p>
<p>§3240 Noise</p>	<p>Policies and standards identify compatible, conditional and incompatible noise levels for various land uses.</p>	<p>The site is an existing gravel extraction site originally permitted in 1986. The operations will be intermittent. There will be periods when no project-related noise is generated. The project contributes to ambient noise during times of operation. Mining activities that will produce noise include extraction, processing, loading and transporting of rock material.</p> <p>The site is located approximately 8.5 miles east of the community of Carlotta. Surrounding areas consist of forested hillsides. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas. Ambient noise levels have historically been associated with timber harvesting and quarry activities. Current ambient noise results from vehicular traffic, wind, water and wildlife. Heavy equipment used for mining will produce noise levels around low-80s dBA for a period of 2-3 weeks. Impacts will be temporary and short term.</p> <p>The project has and will continue to meet County noise standards. Stockpiles of aggregate will continue to be placed in the processing area. Gravel extraction activities will be conducted between September 16 and November 1 to minimize impact to wildlife. The work period for each extraction will be approximately three to four weeks. Long periods of inactivity will occur when no project related sounds will be generated.</p>

<i>Plan Section</i>	<i>Policy / Requirement Summary</i>	<i>Supporting Evidence</i>
§3420 Sensitive and Critical Habitats	Policies and standards identify and set use limitations, and describe protective measures for environmentally sensitive habitat areas.	<p>The project has potential for impact on plant and wildlife species. Annual extraction volume, location and method are based on the recommendations of CHERT, the Department of Fish and Game and other regulatory agencies.</p> <p>Northern spotted owls are known to inhabit the project vicinity. The CNDDDB contains seven records within 1.32 miles of the Highway 36 bridge adjacent to the gravel bar. To avoid the likelihood of incidental take of the species, operations will be restricted from February 1<sup>st</sup> to July 10<sup>th</sup> of each year per the request of the United States Fish and Wildlife Service (USFWS).</p> <p>Marbled murrelets are known to inhabit the areas surrounding the gravel bar. The CNDDDB contains six records within 0.79 mile of the gravel bar. Also, an approximate 334.7 acres of designated marbled murrelet critical habitat can be found immediately north of the gravel bar. Due to the distance to old-growth and the presence of Highway 36, a seasonal restriction for marbled murrelets is not required.</p> <p>A Rare Plant Survey was conducted by Suzanne Issacs of the Humboldt Fish Action Council (HFAC) on April 9, 2010. Similarly, no special status species were found at this site, therefore, no further recommendations regarding rare plants at this site were necessary.</p>
§4200 Circulation	Policies and standards are established for planning, development, maintenance and use of roads, ports, rail, airport drainage and utility facilities.	Hauling of mined materials is limited to "legal loads" as defined in Vehicle and Streets and Highways Codes.

B. Zoning Consistency

The following table identifies the evidence, which supports findings that the proposed surface mining operation is consistent with all applicable requirements and standards of the County Zoning Regulations.

<i>Zoning Section</i>	<i>Requirement Summary</i>	<i>Supporting Evidence</i>
Timberland Production Zone	Surface mining is not identified as a Principal Permitted Use. All other uses not specified may be permitted upon the granting of a Conditional Use Permit.	Though "surface mining" is not expressly listed, Section 391-1 HCC (Surface Mining Ordinance) recognizes the use as a conditionally permitted use in all zoning districts.
Minimum Parcel Size		The project does not involve land division.
Minimum Lot Width		
Minimum Yard Setbacks	30 feet from all property lines	Project does not entail placement of permanent structures subject to these standards.
Minimum distance b/w major buildings		
Maximum Lot Coverage		

C. Development Requirements and Standards

Notwithstanding the requirement for a Conditional Use Permit for the removal of natural material for commercial purposes for inland areas, and compliance with the development standards of the base and combining zones, general regulations applicable to all zones, several zones and special areas as listed apply to the project. These regulations are contained in the County's Mining Ordinance (HCC §391-1 *et seq.*) and require that:

- The proposed surface mining operation incorporates adequate measures to mitigate the probable or known significant environmental effects caused by the proposed operation.
- The proposed surface mining operation and use is properly located in accordance with the General Plan and any relevant element thereof, to the community as a whole, and to other land uses in the vicinity.

**These findings are largely incorporated within plan conformance findings for Conditional Use Permits and as directed under CEQA.**

In addition to the above approval criteria, HCC §313-61.2.6 establishes mining permit standards above and beyond that minimally required under SMARA. These standards include:

- All private encroachments leading to a surface mining operation shall be adequately surfaced to prevent aggregate or other materials from being drawn into the public way.
- All haul roads and driveways shall be maintained as necessary to minimize the emission of dust and prevent the creation of a nuisance to adjacent properties.
- Any water discharges from the mined lands shall meet all applicable water quality standards of the Regional Water Quality Control Board and other agencies with authority over such discharges.
- Adequate measures shall be taken to assure the prevention of erosion from mined lands and adjacent properties during the life of the operation. The reclamation plan shall insure the prevention of erosion subsequent to surface mining operations.
- Unless specifically authorized for the purposes of environmental enhancement by the California Department of Fish and Game (and the U.S. Army Corps of Engineers, if necessary), grades and land forms in mined lands shall be maintained in such a manner so as to avoid accumulations of water that will serve as breeding areas for mosquitoes or sites for fish entrapment.
- Excavations, which could affect groundwater, shall not substantially reduce the quality or quantity of groundwater available in the area surrounding the mined lands.
- Surface mining operations in areas where other agencies have regulatory jurisdiction shall be operated so as to comply with all applicable rules and regulations.

**Based on information contained in the application and environmental documentation, the project has been designed or is being conditioned to assure compliance with these standards.**

D. Public Health, Safety, and Welfare

### **Responses from Other Agencies**

Humboldt County Building Inspection Division: Recommend conditional approval.

Humboldt County Environmental Health Department: Recommend conditional approval.

Humboldt County Department of Public Works, Land Use Division: Recommended conditional approval.

California Department of Fish and Game: See email dated May 28, 2009 and September 2, 2009.

California Office of Mine Reclamation: See comments dated September 30, 2009.

California Department of Transportation: See comments dated November 29, 2007.

North Coast Unified Air Quality Management District: See comments dated November 15, 2007.

Army Corps of Engineers: See comments dated February 13, 2008.

United States Fish & Wildlife Service: See email dated March 18, 2009.

Based on information submitted by the applicant, contained in the environmental documents, and referrals from all jurisdictional agencies and interested parties at present, staff believes that the project as conditioned will not cause significant environmental effects nor be detrimental to the public health, safety or welfare.

The initial study conducted by the Planning and Building Department evaluated the project for any adverse effects on fish and wildlife resources. Based on information in the application, and a review of relevant references in the Department, staff has determined that, provided the mitigation measures identified in the Subsequent Mitigated Negative Declaration are required as operating conditions, no adverse effects on fish and wildlife resources or the habitat upon which wildlife depends will result.

## **2. SURFACE MINING RECLAMATION PLANS**

Public Resources Code (PRC) Sections 2772, 2773 and 2774 specifies the information and documents required for all reclamation plans. The required information and documents are as follows:

- A. The name and address of the operator and the names and addresses of any persons designated by him as his agent for the service of process; and
- B. The names and addresses of the owners of all surface and mineral interests of such lands; and
- C. The anticipated quantity and type of minerals for which the surface mining operation is to be conducted; and
- D. The proposed dates for the initiation and termination of such operation; and
- E. The maximum anticipated depth of the surface mining operation; and
- F. The size and legal description of the lands that will be affected by such operation.
- G. A map that includes the boundaries and topographic detail of such lands, the location of all streams, roads, railroads, and utility facilities within, or adjacent to, such lands, the location of all proposed access roads to be constructed in conducting such operation.
- H. A description of the general geology of the area, a detailed description of the geology of the area in which surface mining is to be conducted.
- I. A description of and plan for the type of surface mining to be employed and a time schedule that will provide for the completion of surface mining on each segment of the mined lands so that reclamation can be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation; and

- J. A description of the proposed use or potential uses of the land after reclamation and evidence that all owners of a possessory interest in the land have been notified of the proposed use or potential uses; and
- K. A description of the manner in which contaminants will be controlled, and mining waste will be disposed; and
- L. A description of the manner in which rehabilitation of affected streambed channels and streambanks to a condition minimizing erosion and sedimentation will occur; and
- M. An assessment of the effect of implementation on the reclamation plan on future mining in the area; and
- N. A statement that the person submitting the plan accepts responsibility for reclaiming the mined lands in accordance with the reclamation plan; and
- O. A cost estimate prepared by a qualified individual for financial assurances to ensure reclamation is performed in accordance with the reclamation plan.
- P. The comments made by reviewing agencies and lead agency responses thereto.

The full contents to satisfy required findings A through P are found in the Plan of Operation for the current permit.

- A. Name and Address of Operator and Agent  
General Information, p. 1.

Humboldt County Department of Public Works  
1106 Second Street, Eureka, CA 95501

- B. Owners of Surface and Mineral Interests of Expansion Area  
General Information, p. 1.

Humboldt Redwood Company, LLC, 125 Main Street, Scotia, CA 95565

- C. Quantity and Type of Minerals  
Introduction, p. 1.

The project proposes extraction of 3,000 cubic yards of river-run gravel annually or 9,000 cubic yards once every three years for County road maintenance. The maximum extraction amount will be 45,000 cubic yards over the 15 year permit term.

- D. Dates for the Initiation and Termination

General Information, p. 1.

Activity will occur immediately after permit approval. The permit term is 15 years and will expire October 4, 2021. The Surface Mining Ordinance allows for up to a 15-year permit term, subject to future extensions. As clarification, this permit term includes both mining and reclamation activities.

- E. Depth of Operation

Extraction depth is described in a manner that reflects the responsive extraction techniques that are designed and implemented on an annual basis. Annual extraction volume, location and method are based on the recommendations of CHERT and other regulatory agencies.

- F. Size and Legal Description

General Information, p. 1:

The project site is approximately 19 acres in size.

Legal Description: Project Location, p. 1:

The extraction area is in Township 1 North, Range 2 East, Sections 9 and 16. The Pacific Lumber gravel bar on the Van Duzen River is located 8.5 miles east of the community of Carlotta. The bar is immediately south of Highway 36 Bridge #4-94 (highway post mile 13.5).

G. Map

See Attachments.

Project Vicinity, Project Location, Site Plan

H. Geology

The site is recent alluvium of unconsolidated deposits of boulders, cobbles, gravel, sand, silt and clay.

I. Type of Surface Mining and Time Schedule

Plan Of Operation, page 2:

*In-stream.* Traditional skimming is the preferred extraction method for this site, based on the topography and size of the bar. Other extraction methods that may be used for the site include narrow skim, trenching, horseshoe skim, alcove and wetland pit methods. The volume, location and extraction method will be determined using the recommendations made by the County of Humboldt Extract Review Team (CHERT) and the capabilities of the equipment used.

Gravel extraction activities will be conducted between September 16 and November 1 to avoid the northern spotted owl and marbled murrelet nesting periods and ensure completion of work before the winter rainy season. The work period for each extraction will be approximately two to three weeks.

J. Proposed Use or Potential Uses of the Land after Reclamation

Reclamation Plan, p. 2.

Following completion of extraction, the extraction area will be reclaimed according to permit requirements and CHERT recommendations. This includes grading the entire extraction area to drain freely and filling in the depressions. Temporary stockpiles will be removed from the bar. Haul roads will be scarified to reduce compaction. All equipment will be removed. Disturbed acreage will be reclaimed and reverted to land use consistent with the Timber Production land use designation.

K. Mining Waste

Reclamation Plan, p. 15.

No waste is produced from this type of project. All materials will be stockpiled and processed off-site for future needs. Due to the nature of the activity and the proposed methods of extraction, no waste will either be retained on-site or disposed off-site. No discharge from industrial activities into State waters occurs.

L. Rehabilitation of Streambeds

Following each extraction, the bar will be reclaimed and all equipment removed. The area around the extraction will be graded to fill in depressions. Equipment and temporary stockpiles will be removed from the bar, and the haul roads will be scarified to reduce compaction.

M. Future Mining

Reclamation Plan, p. 29.

The method of extraction will remove existing quarry materials in a manner that will not affect the opportunity to mine adjacent areas or this same area in the future. The site will also be mined in a manner that allows it to implement annual reclamation activities and be idle for several years.

N. A Statement of Responsibility

Reclamation Plan, p. 2.

The proposed Statement of Responsibility follows County accepted form and content for such acknowledgments.

O. Cost Estimate

Plan of Operation, p. 4.

**3. FINANCIAL ASSURANCES**

PRC §2770, §2773.1 and related administrative guidelines of the Department of Conservation's State Mining and Geology Board (California Code of Regulations §§ 3800 - 3806.2) direct the lead agency to require that the financial assurance:

- A. Take the form of surety bonds, irrevocable letter of credit, trust funds, certificates of deposit, or other mechanisms specified by the State Mining and Geology Board.
- B. Remain in effect for the duration of the surface mining operation and any additional period until reclamation is completed.
- C. For any one year are annually adjusted to account for new lands disturbed by surface mining operations, reclamation pursuant thereto, areas previously reclaimed, and inflation.
- D. Are determined to be adequate for the purposes of performing the reclamation in accordance with the approved reclamation plan.
- E. Made payable to the lead agency and the Department of Conservation.

A. Form of Assurances

The proposed form of financial assurances for the 2008-2009 extraction seasons has not been indicated at this time. As part of the ongoing administration of the reclamation plan, staff shall ensure that the form of financial assurances is one authorized by the State Mining and Geology Board, and consistent with County practices and procedures.

B. Duration of Assurances

As part of the ongoing administration of the reclamation plan, the period of the assurances shall be set to correspond to the overall 15-year term, taking into account annual reclamation costs.

C. Annual Adjustments

As part of the ongoing administration of the reclamation plan, the amount of individual year financial assurances shall be reviewed and adjusted to correspond to changes in quantity prescriptions, past reclamation activities, and inflationary costs associated with reclamation labor, equipment and materials.

D. Adequacy of Assurances

Per the submitted cost estimates, based on standard time and material current construction costs, adequate projection of required reclamation expenses has been performed.

E. Designated Payee

As part of the ongoing administration of the reclamation plan, the Planning Division shall ensure that the financial assurances are designated as payable to the "County of Humboldt" and "Department of Conservation – Office of Mine Reclamation" pursuant to SMARA.

**4. ENVIRONMENTAL REVIEW**

- The project is Statutorily or Categorically Exempt pursuant to CCR § \_\_\_\_\_; or
- See attached "Negative Declaration", or
- See attached "Subsequent Mitigated Negative Declaration", or
- See attached "Environmental Impact Report.

\*\*The Subsequent Mitigated Negative Declaration was revised to update the project description per the Applicant's request. Per CCR §15073.5(c)(4) new information that is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration do not require recirculation of the document prior to adoption.

**ATTACHMENT 3**

**Applicant's Evidence in Support of Findings**

The following documents are attached unless otherwise noted:

1. The Pacific Lumber Bar – Van Duzen Dyerville Plan of Operation (portions attached)
2. The Pacific Lumber Bar – Van Duzen Reclamation Plan
3. Asbestos Air Toxic Control Exemption Form (Project File)
4. Rare Plant Survey dated April 9, 2010 by the Humboldt Fish Action Council



## **PLAN OF OPERATION**

**PL – VAN DUZEN RIVER BAR  
CA MINE ID #91-12-0061  
(Humboldt County)  
August 2009**

**Amended March 2010**

**Prepared by:**

**Humboldt County Public Works Department  
Natural Resources Division  
1106 Second Street  
Eureka, CA 95501  
(707) 445-7741**

**TABLE OF CONTENTS**

General Information..... 3  
Introduction..... 3  
Project Location..... 3  
Past Mining Activities ..... 4  
Proposed Mining & Processing Activities..... 4  
    Air Quality and Natural Occurring Asbestos..... 4  
    Dust Suppression ..... 4  
    Noise..... 5  
    Access/Haul Road..... 5  
    Traffic Control ..... 5  
    Fueling and Maintenance..... 5  
    Hazardous Material Management..... 6  
    Gravel Extraction Activities ..... 6  
    Post Gravel Extraction Activities ..... 7  
    Processing Area Site Description ..... 7  
    Processing Activities ..... 8  
    Post Processing Activities..... 8  
    Monitoring and Reporting Activities..... 8  
Reclamation ..... 8  
    Interim Management During Idle Periods ..... 8  
    Final Reclamation..... 8  
Financial Assurances ..... 9  
ATTACHMENT 1 – Assessors Parcel Maps ..... 10  
ATTACHMENT 1A – Assessors Parcel Maps ..... 11  
ATTACHMENT 2 – Location Map ..... 12  
ATTACHMENT 3 – Vicinity Map ..... 13  
ATTACHMENT 4 – Site Map/Plot Plan..... 14  
ATTACHMENT 5 – Interim Management Plan ..... 15  
ATTACHMENT 5 – Interim Management Plan (cont)..... 16

## GENERAL INFORMATION

**Project:** PL – Van Duzen River Bar  
Renewal of Permit # SMR-03-86/CUP-37-86

**Applicant:** Humboldt County Department of Public Works (HCPW)  
1106 Second Street  
Eureka, CA 95501

**Parcel:** Assessor Parcel #209-201-010 (642.84 acres) (Parcel 1)  
Assessor Parcel #206-262-019 (19.49 acres) (Parcel 2)

**Property Owner:** Parcel 1 - Scotia Pacific Company, LLC  
P.O. Box 712  
Scotia, CA 95565-0712  
Parcel 2 - County of Humboldt  
1106 Second Street  
Eureka, CA 95501

**Volume:** Permitted: 3,000 cubic yards (yd<sup>3</sup>) annually for a maximum of 45,000 yd<sup>3</sup> over 15 years.  
Proposed: 3,000 yd<sup>3</sup> annually or 9,000 yd<sup>3</sup> once every three years for a maximum of 45,000 yd<sup>3</sup> over 15 years.

**Acres:** Permitted: ±19 acres  
Proposed: ±19 acres

## INTRODUCTION

The purpose of this project is to continue extraction, crushing/sorting, and stockpiling of aggregate from the site for use by the Humboldt County Department of Public Works (HCPW) for road maintenance and road repair projects in this area as well as other areas of the County. This permit renewal application proposes extraction of up to 3,000 yd<sup>3</sup> of gravel as frequently as annually or extractions of 9,000 yd<sup>3</sup> occurring as often as once every three years, totaling no more than 45,000-yd<sup>3</sup> over a 15 year period.

## PROJECT LOCATION

The PL – Van Duzen Gravel Bar located is 8.5 miles east of Carlotta on State Highway 36 (Attachment 2) and is situated in Sections 9 and 16, Township 1 North, Range 2 East and can be seen on the U.S. Geological Survey (USGS) Redcrest 7.5' quadrangle map (Attachment 3). The bar is immediately south of Highway 36 Bridge #4-93 (highway post mile 13.5). The processing/stockpiling site lays just northeast of the Highway 36 Bridge. Attachment 4 (Site Plan/Plot Plan)

## **PAST MINING ACTIVITIES**

The first surface mining permit issued in September 1986 (Permit #SMR-03-86/CUP-37-86) approved the annual extraction of up to 3,000 cubic yards (yd<sup>3</sup>) of gravel from the bar for 10 years. In 1997, the permit was extended for an additional 10-year period at the same volume and frequency of extraction.

HCPW has not performed an extraction at the site since the permit was extended in 1997. However, permanent monitoring cross-sections were established on the bar in 1996 and have been surveyed annually since that time.

## **PROPOSED MINING & PROCESSING ACTIVITIES**

HCPW proposes to extract 3,000 yd<sup>3</sup> of gravel as frequently as annually or an extraction of 9,000 yd<sup>3</sup> occurring as often as once every three years, totaling no more than 45,000-yd<sup>3</sup> over a period of 15 years. Processing, sorting, and stockpiling are included in the proposed activities and will take place at an upland site located 1,320' northwest of the gravel bar. See Attachment 4 regarding site layout.

### Air Quality and Natural Occurring Asbestos

In 2002 the California Air Resources Board approved an Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (Final Regulation Order Section 93105). The PL Van Duzen Bar site is located downstream of a known ultramafic rock unit and may contain incidental specimens containing asbestos, serpentine, or ultramafic rock. If in the event naturally occurring asbestos (NOA) is discovered, the North Coast Unified Air Quality Management District will be notified immediately. Stringent dust control measures will be applied during excavation, processing/sorting, and stockpiling operations and during activities associated with final reclamation.

The North Coast Unified Air Quality Management District is in non-attainment for Particulate Matter smaller than 10 microns in diameter (PM10) according to State of California Standards. Sources of PM10 in the project vicinity are from road and natural airborne dust, vehicle emissions, and occasionally forest fires.

### Dust Suppression

Dust control measures will consist of watering the haul road, surge piles, and extraction areas with a water truck as needed to control fugitive dust. With approval from the participating regulatory agencies, water for dust suppression purposes may be sourced directly from the bar via a temporary excavated sump, located at the downstream end of a large (dry) secondary channel or may be delivered from an offsite water source.

An equipment dust suppression system is utilized during processing operations. The system includes a large water storage tank located adjacent to the equipment. Offsite water is delivered to the tank via the water truck. Refilling is based on demand, typically every 2-3 days. A portable gas-powered pump supplies water to strategically located misters, typically installed at

the screen deck and conveyor head-pulleys. Mistert may also be utilized on the cone and/or jaw, depending on the volume of dust generated by the material being processed.

### Noise

Ambient noise levels in the general vicinity range from 30 to 65 dBA and result from the river, wind, birdcalls, and vehicular traffic on Highway 36. Noise contribution from extraction activities are in the low-80s dBA range, which is typical for this type of activity, with the loudest noise coming from equipment backup alarms and the crusher.

### Access/Haul Road

Access to the extraction site is via an existing graveled/paved haul road, which enters the gravel bar from the northeast side. The seasonal, temporary haul road will be designed to traverse the open gravel bar by the shortest route possible and will further be designed to avoid existing areas of riparian vegetation. The topography of the bar will be considered during the design of temporary roads to minimize disturbances associated with cut and fill during construction of these roads.

Access to the nearby processing, sorting, and stockpiling area is via a paved County road which is located across Highway 36 and to the northeast of the gravel bar. Furthermore, this same road leads to a County owned, solid waste transfer facility. The processing, sorting, and stockpiling area is located adjacent to this facility.

### Traffic Control

Traffic control will consist of placing warning signs along Highway 36, several hundred feet in both directions of the site entrance. It will not be necessary to detour or otherwise restrict traffic. Minor traffic delays may occur as vehicles slow down when they encounter trucks entering or exiting the site. Delays will be temporary, ending when extraction and processing activities are completed and trucks/equipment leave the area.

### Fueling and Maintenance

All fueling, lubing, and equipment maintenance will be performed in a responsible manner. The designated staging/storage area for equipment, fuels, lubricants, and solvents related to extraction activities will be along a turnout adjacent to the access road, located approximately halfway between the inboard edge of the upper terrace (open bar) and Highway 36 (see Site Plan, Attachment 4). Equipment will be inspected for leaks prior to starting each shift, following lunch breaks, and at end of shift each workday. Maintenance involving the removal/repair of hydraulic cylinders/hoses or of reservoirs containing hazardous products will be performed over impervious fabric resistant to Total Petroleum Hydrocarbons (TPH). A minimum of two sealed 5-gallon spill kits will be kept onsite at all times during extraction/processing operations. All activities related to fueling, lubing, and maintenance will be performed in the designated staging area only. The single, valid exception to this requirement is when equipment breaks down onsite and must be repaired in the field. In those instances, every effort will be made to guard against and control spills. The functional condition of fuel transfer pumps, hose assemblies, and emergency shutoff switches will be evaluated prior to usage. Personnel tasked with fueling will remain near the emergency shutoff switch during fueling operations. Topping off of fuel tanks will not occur. Fuels and lubricants will not be stored onsite after-hours or on weekends. Although not described in this text, a Spill Contingency Plan will be included in the annual extraction proposal and will

be subject to review and approval. Operations personnel will be familiar with all aspects of the Plan prior to the startup of extraction/processing operations.

Either an electric or gasoline powered water pump may be used to supply water to the crushing equipment; dust suppression system. When a gasoline powered water pump is utilized, it will be situated over a drip pan or impervious fabric resistant to TPH and will be securely stored or removed from the site at end of shift each workday.

The designated staging/storage area for equipment, fuels, lubricants, solvents, and maintenance related to processing, sorting, stockpiling activities would occur within the boundary of operation as depicted in the Site Plan (see Attachment 4). Fueling, lubing, and maintenance will be performed in accordance with the above-mentioned protocol as it relates to extraction activities. A minimum of two sealed 5-gallon spill kits will be kept onsite during processing activities. One sealed 5-gallon spill kit will be kept onsite during off-haul activities from the stockpile area.

#### Hazardous Material Management

If leaks or spills occur in the area of operation during any extraction, processing, or stockpiling operations, they will be controlled immediately. All contaminated soil will be recovered from the site and stored in DOT approved containment vessels. All stored contaminated/hazardous material will be removed in a timely manner and disposed of at an approved disposal facility.

#### Gravel Extraction Activities

Traditional skimming is the preferred extraction method for this site, based on the topography and size of the bar. Other extraction methods that may be utilized include narrow skims, trenching, horseshoe skims, alcove extractions, and wetland pit methods. Volume, location and extraction method(s) will be determined using recommendations made by the County of Humboldt Extraction Review Team (CHERT) and participating regulatory agency staff.

In the spring, following the cessation of winter flows, CHERT will visit the site with HCPW staff to evaluate the availability of material, suitable location(s) for extraction, volume to be extracted, and type of extraction(s) to perform. Following the CHERT site visit, a pre-extraction proposal will be prepared for CHERT and other participating regulatory agencies. Spring or early summer annual pre-extraction monitoring cross-sections (MSL) and seasonal pre-extraction cross-sections (ESL) will be surveyed and superimposed on an aerial photograph of the site (Site Plan). The Site Plan also includes temporary haul road locations, limits of extraction, temporary stockpile locations, and equipment staging area(s). This Plan will further include identification of environmentally sensitive areas, rare plant species and riparian vegetation known to exist within the project limits. A discussion of the proposed extraction methodology will be included in the report, along with a work plan for the proposed action. Primary elements of the pre-extraction report include:

- Monitoring cross-sections
- Extraction cross-sections
- 35% Exceedence Flow Elevations
- Extraction Volume Calculations
- Project Limits (to include area of equipment parking, fueling and maintenance, extraction, temporary roads/turnout and stockpile areas).
- Extraction Surface Area
- Extraction Techniques

- Minimum Head of Bar Buffer
- Minimum Floor Design Elevation
- Habitat Mapping
- Delineation of Woody Debris, Vegetation and Wetlands
- Structure Setbacks

Upon approval of the pre-extraction report, and prior to extraction activities, survey cut stakes depicting design elevations, temporary haul road alignment, and limits of operation will be set throughout the extraction area to guide equipment and set boundaries for the operation.

Equipment utilized during the extraction operation may consist of a bulldozer, front-end loader, dump trucks, and water truck. Working within the pre-set cut stakes, the bulldozer or front-end loader will first construct a temporary haul road per approved alignment and design. This will be followed by equipment removing gravel from the extraction area(s) and creating temporary windrows or surge piles. A front-end loader will remove the material from the bar by placing it in dump trucks for transport to the offsite stockpile location for processing and storage.

Gravel extraction activities will be conducted after July 10 to avoid the northern spotted owl nesting period. FWS has determined based on the distance to the nearby old growth forest and the presence of Highway 36, that a seasonal restriction for marbled murrelet would not be necessary. The operation will typically take two to three weeks to conclude and must be terminated before winter rains begin. The removal of surge piles on the bar and final grading at end-of-day will occur after October 1. All gravel extraction activity must cease as of October 15 unless an approved river flow-monitoring plan is enacted and a time extension has been granted. Continuance of these activities beyond October 15 is dependent on submittal and approval of the plan prior to the October 15 termination date.

#### Post Gravel Extraction Activities

Following completion of extraction activities and the removal of all surge piles, temporary haul roads may be scarified to reduce compaction or be graded to duplicate surrounding topography as deemed appropriate per CHERT or participating regulatory agency recommendations. Furthermore, finish grading will be performed across the entire extraction area to facilitate free drainage and prevent fish stranding. Any area outside the approved limits of operation that were inadvertently disturbed during harvest and/or road construction activities will be straw mulched as necessary to reduce offsite sediment transport of fines associated with the disturbance. Following completion of grooming and road decommissioning activities, post-ESL will be surveyed through the harvested area. Any MSL transecting the harvested area will also be re-surveyed at this time.

#### Processing Area Site Description

The upland area utilized for processing, sorting, and stockpiling could be described as disturbed grassland. This area is approximately 5 acres in size, is reasonably flat, is located north of Highway 36, and 1,725' northeast of the PL Van Duzen Bar. Local vegetation consists of Scotch Broom (*Cytisus scoparius*), annual grasses, and a few isolated alder and second growth redwood. Due to the nature of the surrounding vegetation, it is safe to assume that this area was once old growth conifer. The site is also the location of a County owned, solid waste transfer facility, operated by Eel River Disposal. Access to the site is gated, the roadway is 24' wide, and the road surface is asphalt. The area of operation is approximately 1.66 acres in size. An area (corridor) approximately 150' in width separates the operation from the Van Duzen River along the

northwest side. The area northeast of the project is dense second growth conifer. There is a property consisting of a residence, outbuildings, and pasture located approximately 1,320' northeast of the project. Highway 36 lays 570' to the southeast and 835' to the southwest. Areas to the southeast and southwest consist of a mixture of various vegetation, primarily annual grasses, Scotch Broom, alder, and second growth redwood.

#### Processing Activities

A portable crusher assembly (Plant), consisting of a jaw and cone crusher, screen deck, conveyors, and a portable generator will be transported to the site and erected. The Plant will be located just north of the County owned, solid waste transfer facility. Aggregate from the surge stockpile will be fed to the crusher via a front-end loader. Processed/sorted aggregate will then be transferred from the radial stackers (conveyors) to permanent, onsite stockpiles for future use by HCPW road crews. The protocol described above regarding fueling, lubing and maintenance activities will be adhered to during this aspect of the operation.

#### Post Processing Activities

Once processing activities are completed, the Plant will be dismantled and removed from the area. Any contaminated/hazardous material accumulated during the operation will be removed from the site per protocol described under the Hazardous Material Management section of this Plan. Stormwater runoff is not expected to be an issue at the site due to the broad band of vegetation surrounding the area of operation and the lack of gradient towards the perimeter of the site.

#### Monitoring and Reporting Activities

Monitoring will consist of surveying the pre-established monitoring cross-sections as required by the permitting agencies, with results submitted to all participating regulatory agency. Following permit expiration or final closure of the site, no subsequent monitoring will be performed.

### **RECLAMATION**

#### Interim Management During Idle Periods

Mining operations at the PL Van Duzen Bar have been idle since 1996. There is an Interim Management Plan (IMP) in place (Attachment 5), and interim measures from the plan have been implemented. These measures include regular site inspections, annual monitoring cross-section surveys, security, and maintaining limited access to the bar and processing site.

#### Final Reclamation

A detailed description of all final reclamation activities related to the project can be found in the PL – Van Duzen, Amended Reclamation Plan (021810).

No substantial changes in mining or reclamation activities will occur during the proposed renewal period. State Mining and Geology Board Reclamation Regulations, Article 1 §3502(d) states “An amended reclamation plan shall be approved by the lead agency prior to commencement of activities determined to be a substantial deviation from the approved plan.” A substantial deviation includes changes to the operation that substantially affect completion of the previously approved reclamation plan or changes in the end use that would substantially change the scope of reclamation. While an extension of the termination date of mining is proposed, no substantial

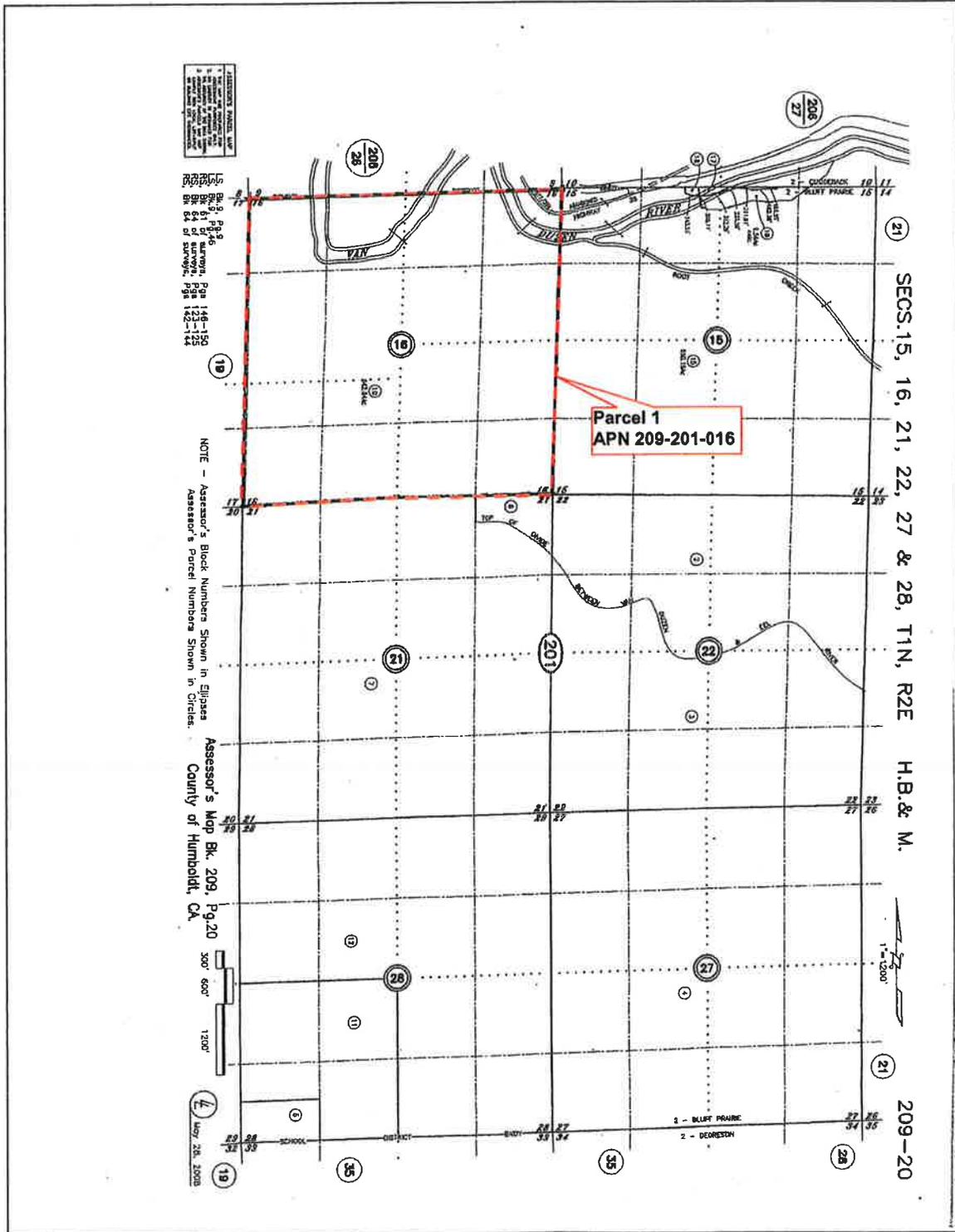
increase in surface area, volume to be extracted, or changes in the operation that would substantially affect end use will occur.

**FINANCIAL ASSURANCES**

Financial Assurances are summarized below. These assurances were updated and approved by the Planning Division on May 9, 2007. No other changes to these amounts are proposed as no changes to the approved Reclamation Plan are proposed.

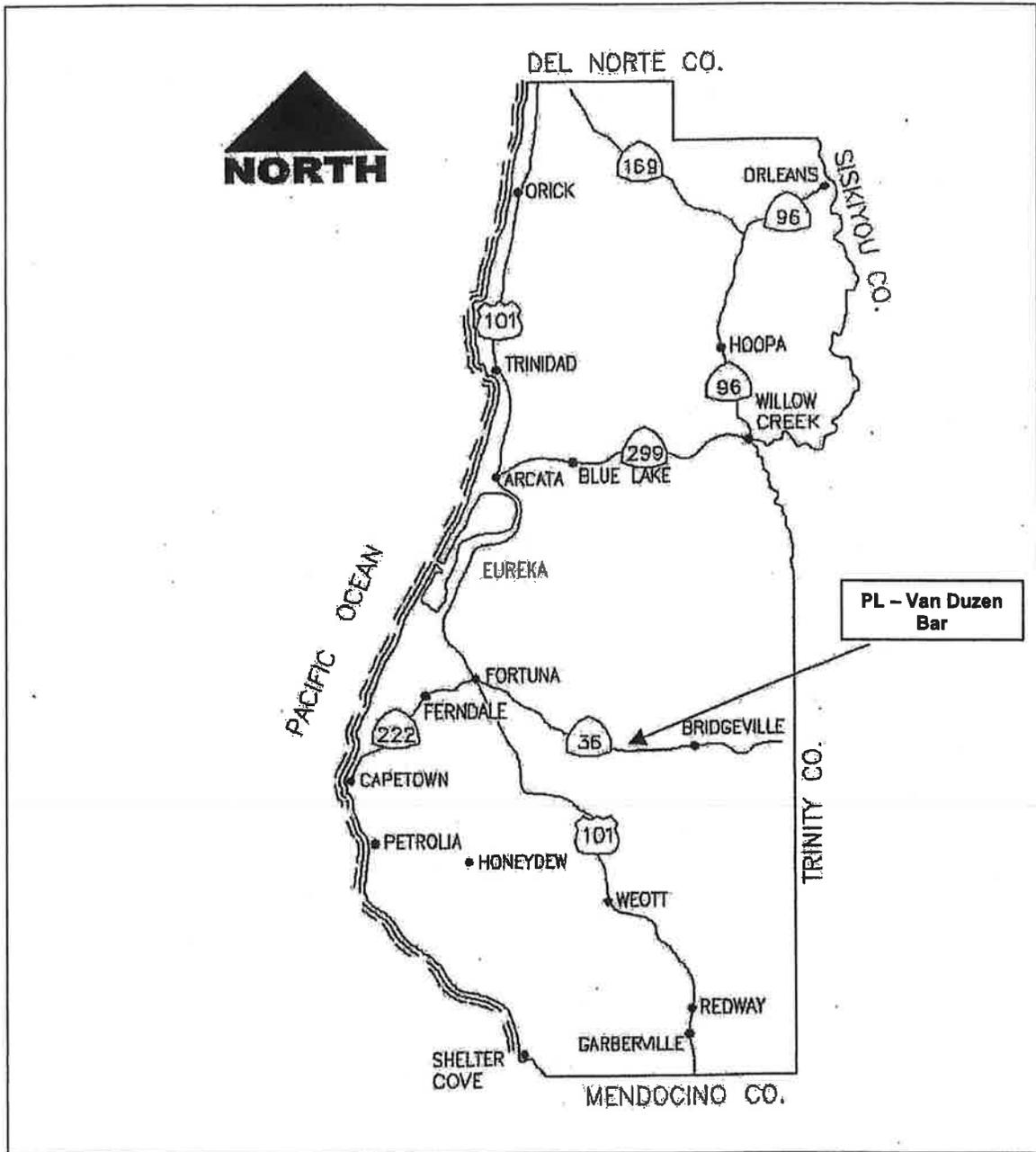
<b>ACTIVITY</b>	<b>COST (\$)</b>
<b>Direct Costs</b>	
Primary Reclamation Activities (grading bar smooth)	394.37
Monitoring Costs (surveyed cross-sections, 1 year)	200.00
<b>Indirect Costs</b>	
Contingencies (10%)	66.04
<b>Total Estimated Cost</b>	<b>\$660.41</b>

ATTACHMENT 1 – ASSESSORS PARCEL MAPS (PARCEL 1)

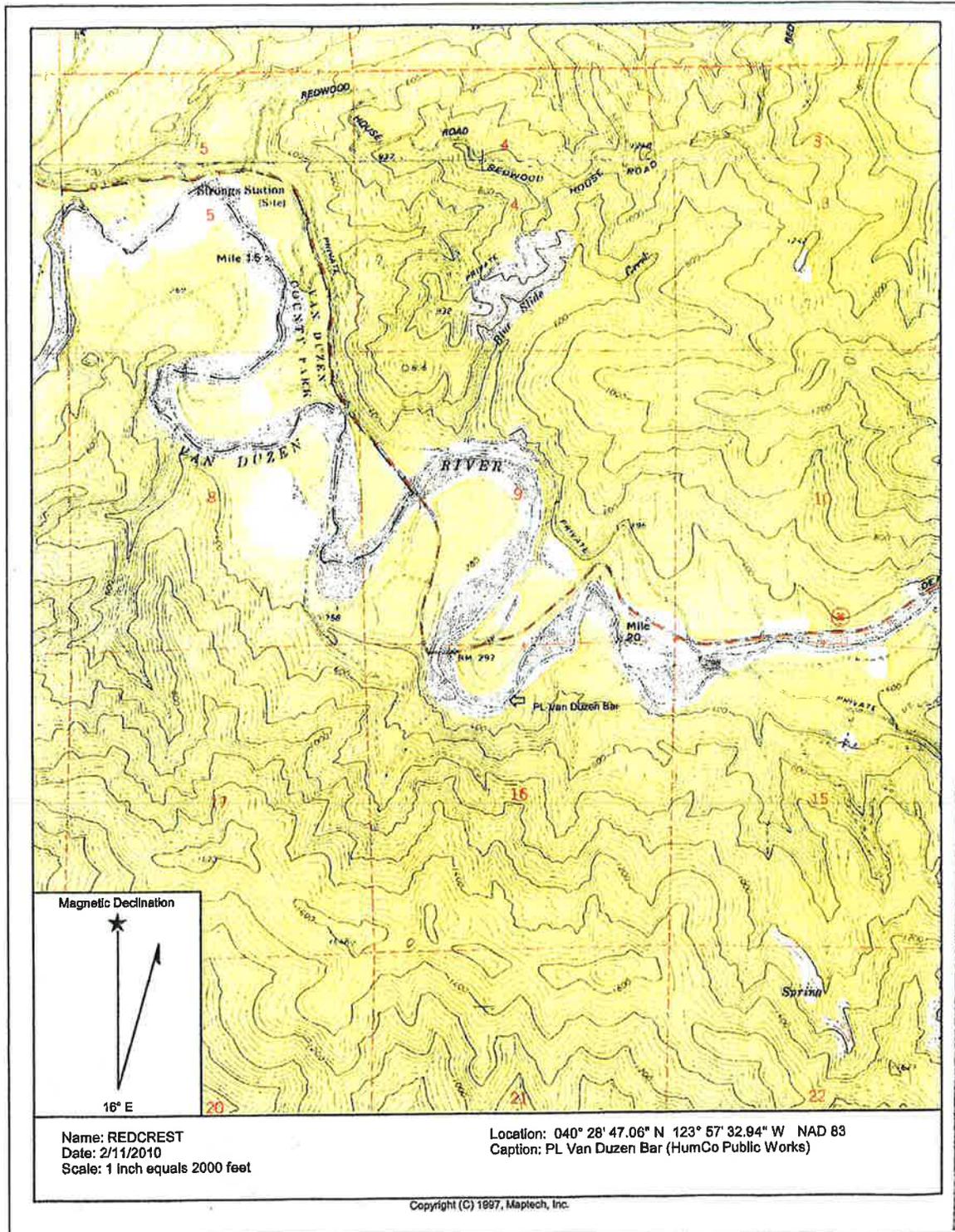




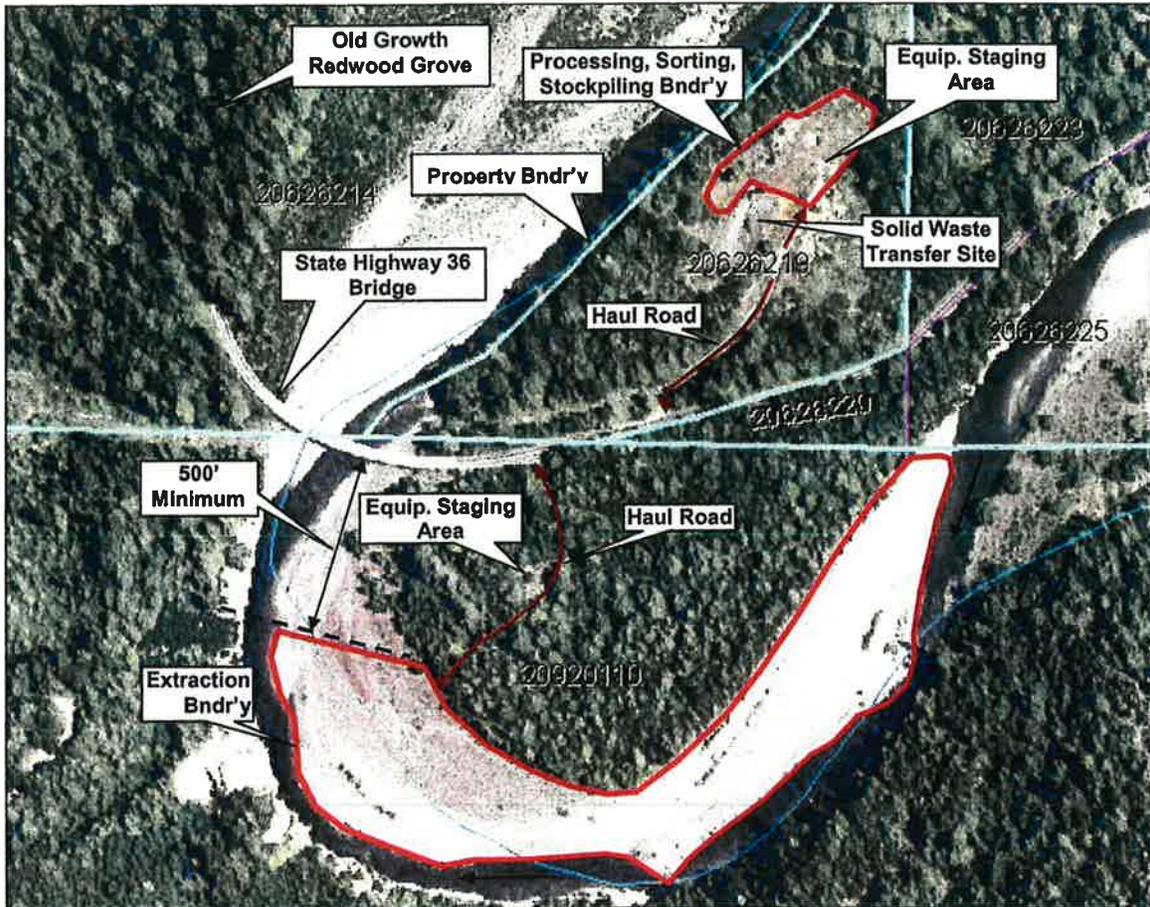
ATTACHMENT 2 – LOCATION MAP



### ATTACHMENT 3 – VICINITY MAP



ATTACHMENT 4 – SITE MAP/PLOT PLAN



## ATTACHMENT 5 – INTERIM MANAGEMENT PLAN

### INTERIM MANAGEMENT PLAN

PACIFIC LUMBER VAN DUZEN BAR – VAN DUZEN RIVER  
CA Mine I.D. #91-12-0061  
Humboldt County Public Works Department  
1106 Second Street  
Eureka, CA 95501

#### PURPOSE:

This Interim Management Plan has been prepared to comply with §2770(h)(1) of the Surface Mining and Reclamation Act (SMARA).

#### SITE DATA:

Name: Pacific Lumber Van Duzen Bar  
Location: Van Duzen River at Highway 36, 2 miles east of Redwood House Road  
CA Mine I.D. 91-12-0061  
Type/Size: River gravel bar/~19 acres  
APN: 209-201-10

OWNER/OPERATOR: Owner – Scotia Pacific Company, LLC  
P.O. Box 712  
Scotia, CA 95565-0712  
Operator – Humboldt County Public Works Department  
1106 Second Street  
Eureka, CA 95501

PERMIT STATUS: Permit: #CUP 37-86/SMR-03-86  
Expiration Date: October 4, 2007

#### STATUS OF OPERATION:

This river bar was last mined by the Humboldt County Public Works Department in 1996. The river bar mining operation is temporarily idle with the intention to resume mining operations in the future. There have been no operations on the gravel bar during idle status. No equipment or structures have been left on the bar.

#### STATUS OF MONITORING:

- A. Annual Site Inspections – This site has been inspected annually in compliance with §2774(b) of SMARA. Annual inspection reports are submitted to the Humboldt County Planning Division and CA Department of Conservation.
- B. Annual Monitoring Cross Section Surveys – With the establishment of the County of Humboldt Extraction Review Team (CHERT), monitoring cross sections were established on the bar. These cross sections have been surveyed annually, with survey data submitted to the Corps of Engineers, NOAA Fisheries, CA Department of Fish & Game, and CHERT, as required by other regulatory permits.

**ATTACHMENT 5 – INTERIM MANAGEMENT PLAN (CONT)**

- C. Annual Mine Reports-- Annual Mine Reports have been completed and submitted annually to the Humboldt County Planning Division and CA Department of Conservation, in compliance with §2207 of SMARA.

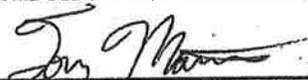
**INTERIM MANAGEMENT PLAN:**

Reclamation of the gravel bar after the 1996 operation consisted of regrading the excavated area to eliminate holes or depressions, and sloping it toward the low flow channel. The access route on the bar was scarified to reduce compaction by haul trucks.

Pending resumption of mining operations on the site, the following interim measures will be taken to preserve/protect the site.

1. The site is gated to prohibit unauthorized access. Only County and Pacific Lumber employees and their authorized parties will have access to the bar.
2. No excavation equipment will be stored on the bar. No fuels or other associated materials used in mining will be stored on the bar.
3. Monitoring cross sections will be surveyed prior to resumption of mining by Humboldt County Public Works Department on the bar.
4. No planting or revegetation is proposed on the gravel bar. This site is inundated by winter flows from approximately November through May of each year.
5. No additional grading, containment structures (berms, etc.) or ground disturbance is proposed on the gravel bar. Disturbance of the "armored" layer may release fine material into the river.
6. These interim measures will remain in place until mining activity commences or the permit or this interim management plan expires.
7. The Humboldt County Planning Division will be notified at least 10 days prior to initiation of mining activity that terminates idle status at this site.

HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS BY:

  
Signature \_\_\_\_\_ Date 11/26/03

Tom Mattson  
Deputy Director



## **FINAL RECLAMATION PLAN**

**PL – VAN DUZEN RIVER BAR  
CA MINE ID #91-12-0061  
(Humboldt County)  
August 2009**

**Amended March 2010**

**Prepared by:**

**Humboldt County Public Works Department  
Natural Resources Division  
1106 Second Street  
Eureka, CA 95501  
(707) 445-7741**

## TABLE OF CONTENTS

OPERATOR .....	5
OWNER/SURFACE RIGHTS .....	5
GENERAL MINING OPERATION INFORMATION .....	5
Mined Mineral Commodity .....	5
Estimated Production.....	5
Total Acres to be Disturbed.....	5
Total Acres to be Reclaimed.....	5
Date of Start-Up.....	5
Estimated Date of Closure .....	5
LOCATION .....	5
SITE DESCRIPTION .....	6
DESCRIPTION OF ENVIRONMENTAL SETTING .....	7
Geology/Soils .....	7
Hydrology .....	8
Water Quality.....	9
Air Quality & Natural Occurring Asbestos .....	9
Biological Resources - Vegetation .....	9
Running Pine .....	9
Howell’s montia.....	10
Seacoast Ragwort.....	10
Biological Resources - Wildlife.....	10
Western Yellow-Billed Cuckoo .....	10
Pacific Fisher .....	10
Coho, Chinook, and Steelhead Habitat in the Van Duzen River .....	11
Northern Spotted Owl.....	11
Marbled Murrelet.....	11
Cooper’s Hawk .....	12
Northwestern Pond Turtle.....	12
Sonoma Tree Vole .....	12
Townsend’s Big-Eared Bat.....	12
Long-Legged Myotis .....	12
Yuma Myotis .....	12
Osprey.....	13
Northern Red-Legged Frog.....	13
Foothill Yellow-Legged Frog .....	13
Cultural Resources.....	13
GENERAL LEAD AGENCY INFORMATION.....	13
Lead Agency .....	13
Staff Contact .....	13
Phone Number .....	13
Address .....	13
Surface Mining/Conditional Use Permit Number.....	13
Date Issued.....	13
Expiration Date.....	13
Financial Assurances .....	13
DESCRIPTION OF MINING ACTIVITIES.....	14
Gravel Extraction.....	14

Post-Extraction Winterization and Monitoring.....	16
Processing Area Site Description .....	17
Processing Activities .....	17
Post-Processing Winterization and Monitoring.....	17
Traffic Control .....	17
Fueling and Maintenance.....	18
Hazardous Material Management.....	18
Interim Activities .....	18
Annual Monitoring and Reporting Activities .....	18
FINANCIAL ASSURANCES.....	19
RECLAMATION ACTIVITIES .....	19
Post-Extraction Reclamation Activities.....	19
Final Reclamation Activities .....	19
Gravel Bar/Access Road.....	19
Processing/Stockpile Area .....	20
Post Reclamation Land Use.....	20
Gravel Bar/Access Road.....	20
Processing/Stockpile Area .....	20
Time Schedule .....	20
Gravel Bar/Access Road.....	20
Processing/Stockpile Area .....	20
Topography.....	21
Gravel Bar/Access Road.....	21
Processing/Stockpile Area .....	21
Resoiling.....	21
Gravel Bar/Access Road.....	21
Processing/Stockpile Area .....	21
Revegetation .....	21
Gravel Bar/Access Road.....	21
Processing/Stockpile Area .....	22
Post-Revegetation Monitoring.....	22
Invasive Weed Control .....	22
Impact of Reclamation on Future Mining in Area.....	22
Impact of Reclamation on Public Health and Safety .....	22
RECLAMATION PERFORMANCE STANDARDS.....	23
Wildlife Habitat .....	23
Backfilling, Regrading, Slope Stability, and Contouring .....	23
Revegetation .....	23
Drainage, Diversion Structures, Waterways, and Erosion Control.....	23
Prime Agricultural Land .....	24
Other Agricultural Land.....	24
Building, Structure, and Equipment Removal .....	24
Stream Protection.....	24
Topsoil Salvage, Maintenance and Redistribution .....	24
Tailings and Mine Waste Management .....	24
Closure of Surface Openings .....	25
SOURCES CITED.....	25
STATEMENT OF RESPONSIBILITY.....	27
ATTACHMENT 1 – Assessors Parcel Maps (Parcel 1).....	28
ATTACHMENT 1A – Assessors Parcel Maps (Parcel 2).....	29
ATTACHMENT 2 – Location Map .....	30

ATTACHMENT 3 – Vicinity Map ..... 31  
ATTACHMENT 4 – Site Map ..... 32

## **OPERATOR**

Humboldt County Public Works Department (HCPW)  
1106 Second Street  
Eureka, CA 95501  
Ph. #707-445-7741

## **OWNER/SURFACE RIGHTS**

Humboldt Redwood Co. LLC  
P.O. Box 712  
Scotia, CA 95565-00712

## **GENERAL MINING OPERATION INFORMATION**

### Mined Mineral Commodity

Gravel

### Estimated Production

3,000 cubic yards (yd<sup>3</sup>) annually or 9,000 yd<sup>3</sup> once every three years for a maximum of 45,000 yd<sup>3</sup> over 15 years.

### Total Acres to be Disturbed

19 acres

### Total Acres to be Reclaimed

19 acres

### Date of Start-Up

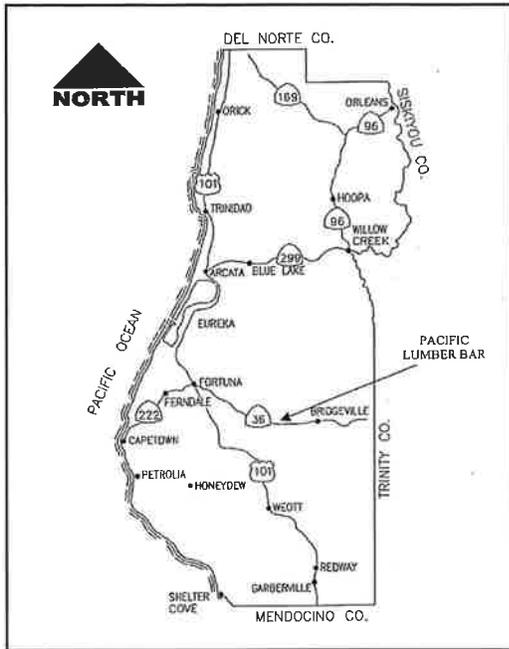
October 4, 1986

### Estimated Date of Closure

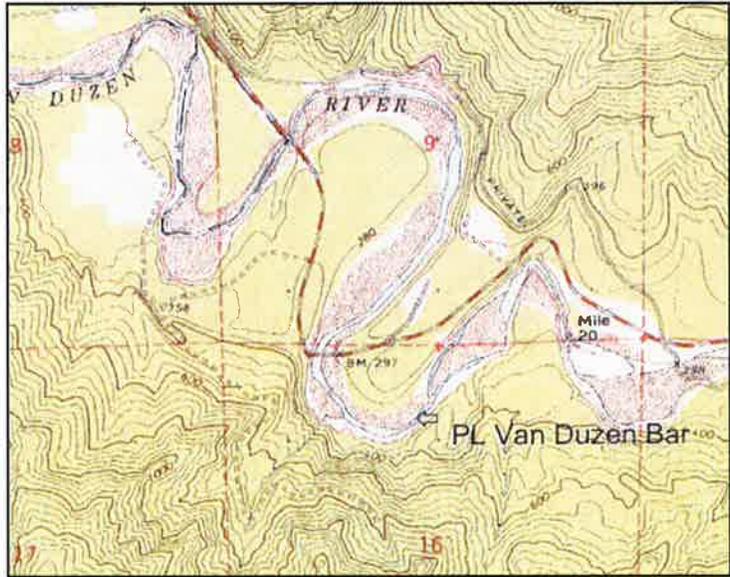
October 4, 2021 unless this permit is renewed

## **LOCATION**

The Pacific Lumber owned gravel bar on the Van Duzen River (a.k.a. Van Duzen Bar) is 8.5 miles east of Carlotta on State Highway 36. It is located in Sections 9 and 16, Township 1 North, Range 2 East and can be seen on the USGS Redcrest 7.5' quadrangle map. The bar is immediately south of Highway 36 Bridge #4-94 (Highway post mile 13.5). The processing/stockpiling site lays just northeast of the Highway 36 Bridge. See Attachments 1-4 for various maps associated with the site/project



Redcrest 7.5' USGS Quadrangle



### SITE DESCRIPTION

The Van Duzen Bar is horseshoe-shaped, occurring along a tight bend on the river. It is about 3,000 feet (ft.) long x 400 ft. wide, and is part of a series of alternating bars along a sinuous section of the Van Duzen River. Access to the bar is by an 800 ft. long existing access/haul road, which runs through second growth coastal redwood and Douglas fir forest from the gate at State Highway 36 to the gravel bar. The hillside across the river from the bar is very high and steep, with an active landslide immediately opposite the middle of the bar. A State Highway bridge spans the river at the downstream end of the bar. A site description of the processing/stockpiling area is given on Pg. 16.



From Gravel Bar Looking Downstream Towards Highway Bridge



From Highway Bridge Looking Upstream Towards Gravel Bar



Active Landslide Across from Bar

## **DESCRIPTION OF ENVIRONMENTAL SETTING**

### Geology/Soils

The geology of the project vicinity is undifferentiated rocks of the Wildcat Group. These are primarily massive marine fine-grained sandstone, siltstone, and mudstone from the Pliocene era. The rock is very friable and frequently structureless (Denton 1975).

The gravel bar itself is composed of recent alluvium consisting of unconsolidated deposits of boulders, cobbles, gravel, sand, silt, and clay currently being deposited in the river channel. This recent alluvium is defined by the 1-2 year floodplain.

The Yager Fault is located about 1.6 miles northwest of the gravel bar (Strand 1962, Spittler 1983). This fault is an offshoot of the Little Salmon Fault. There is little information regarding seismic activity on the Yager Fault. However, the Little Salmon Fault has been the subject of some study, including fault trenching in the Fortuna area, and fault evaluation reports for the Little Salmon Fault were used to develop the Alquist-Priolo maps (Personal Communication with Jim Falls, Geologist, August 31, 2007).

There is no soil on the gravel bar, which is below ordinary high water (OHW) and is inundated by the river for several months each year. The land immediately north (adjacent) of the bar is a combination of Ferndale silt loam and Carlotta gravelly loam. The Ferndale silt loam (Fe2), which is found on Van Duzen River floodplains, is well suited for agriculture, with a Storie Index of 100. It supports pasture, the production of high quality livestock feed, and timber. The Carlotta gravelly loam (Ca6) is an alluvial soil that occurs on low river terraces. It has a Storie Index of 51 and while it supports some pasture, is primarily used for timber production (McLaughlin et. al. 1965). Both soils in the vicinity of the Van Duzen bar have been designated prime agriculture soils (Humboldt County 2009).

Hydrology

Records from USGS river gauge #11478500, located approximately 4.5 miles above the gravel bar (Van Duzen River mile 24) show mean discharges of 18.6 cubic feet per second (cfs.), (month of September) to 2,251 cfs. (Month of January), based on data from 1951 through 2005. Flood events have produced flows as high as 48,700 cfs. (December 22, 1964) (USGS, 2007).

The unstable geography of the basin, along with human activities and several significant flood events combined to produce significant gravel contribution to the river channel. The mean bed elevation increased in response to the 1964-65 flood event by approximately 12 ft. in the area of Pepperwood Falls, approximately seven miles above the Van Duzen bar, and 9.5 ft. at USGS river gauge #11478500 (4.5 miles above the bar, Berg 2002). In general, mean bed elevation in the Lower Van Duzen River increased in response to the 1964-65 flood, and increased to even higher elevations following the floods of the 1970s. According to Klein (1998), mean bed elevations generally lowered through the 1980s up to 1998. However, sediment transport is storm-dependent by nature, and data for other storms indicate that sediment is largely moved by significant and episodic flows (Resource Design Technology Inc., 1999).

Starting in 1996, with the establishment of permanent monitoring cross-sections on the Van Duzen Bar, the site has been surveyed annually. Review of this data indicates a net loss of ~28,000 yd<sup>3</sup> (average -3,457 yd<sup>3</sup>/year) in the gravel bar reach.

Table 1 – Gravel Volume at Pacific Lumber Bar

YEAR	VOLUME CHANGE (cy)
1996	-----
1997	-----
1998	-25,266
1999	-9,429
2000	-590
2001	-3,158
2002	2,373
2003	3,767

2004	11,850
2005	-7,200
2006	-----
Net Volume Change	-27,653

Water Quality

The Van Duzen River was listed on The California Clean Water Act Section 303(d) list in 1992 for water quality limited by the impacts of excessive sedimentation. In 1999, the Total Maximum Daily Load for Sediment for the Van Duzen River and Yager Creek was finalized (USEPA 1999).

Regular water sampling and testing takes place at various locations along the Van Duzen River. Friends of the Van Duzen River have established monitoring locations on several tributaries and on the mainstem. Grab samples are taken from November through April, and are analyzed for turbidity and suspended sediment concentration. In 2001 and 2002, samples from the mainstem 11 miles downstream of the gravel bar had turbidity values over 25 NTU 63% and 69% of the total days sampled, with a maximum recorded sample of 1000 NTU in 2002. While turbidity levels are related to flow volumes, turbidity values were high enough to impair salmonid life cycles, even when flows were lower (Harkins 2004).

Air Quality & Natural Occurring Asbestos

In 2002 the California Air Resources Board approved an Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (Final Regulation Order Section 93105). The PL Van Duzen Bar site is located downstream of a known ultramafic rock unit and may contain incidental specimens containing asbestos, serpentine, or ultramafic rock. If in the event naturally occurring asbestos (NOA) is discovered, the North Coast Unified Air Quality Management District will be notified immediately. Stringent dust control measures will be applied during excavation, processing/sorting, and stockpiling operations and during activities associated with final reclamation.

The North Coast Unified Air Quality Management District is in non-attainment for Particulate Matter smaller than 10 microns in diameter (PM10) according to State of California Standards. Sources of PM10 in the project vicinity are from road and natural airborne dust, vehicle emissions, and occasionally forest fires.

Biological Resources - Vegetation

The California Natural Diversity Database (CNDDDB) contains records for five rare or sensitive plant species on the area covered by the Redcrest USGS 7.5' quadrangle. Of these, the project area or vicinity contains habitat for three. The California Native Plant Society has ranked these plants as List 2.2: plants that are rare in California but common elsewhere, and are threatened to a "moderate degree" in California ([www.cnps.org/rareplants/ranking.php](http://www.cnps.org/rareplants/ranking.php) 2007).

*Running Pine*

Running pine (*Lycopodium clavatum*) is found in north coast coniferous forests, in mesic sites with partial shade and light. CNDDDB contains records of running pine approximately one mile southwest of the project area. The gravel bar does not contain habitat for running pine. However the access road and project vicinity contain habitat.

*Howell's montia*

Howell's montia (*Montia howellii*) is found in north coast coniferous forest, in vernal wet sites, often on compacted soil. CNDDDB contains records of Howell's montia 0.4 miles east of the project area. The gravel bar does not contain habitat for Howell's montia. There is habitat along the access road and in the project vicinity.

*Seacoast Ragwort*

Seacoast ragwort (*Packera bolanderi var. bolanderi*) is found in north coast coniferous forests, as well as coastal scrub habitat. CNDDDB contains records of Seacoast ragwort approximately 1 mile north of the project area. These records indicate the plant was found on steep slopes and along cliff faces. There is habitat for seacoast ragwort in the project vicinity.

Biological Resources - Wildlife

The following species of wildlife are listed by the US Fish & Wildlife Service (USFWS) as threatened or are candidates for listing for the Redcrest 7.5' USGS Quadrangle as of August 2007.

Table 2 – USFWS Listed Species (Redcrest 7.5' USGS Quadrangle)

SCIENTIFIC NAME	COMMON NAME	STATUS	CRITICAL HABITAT
<b>Fish</b>			
<i>Oncorhynchus kisutch</i>	SONCC Coho salmon	Threatened (1997)	Yes (1999)
<i>Oncorhynchus mykiss</i>	No. CA steelhead	Threatened (2000)	Yes (2005)
<i>Oncorhynchus tshawytscha</i>	CA coastal Chinook salmon	Threatened (1999)	Yes (2005)
<b>Birds</b>			
<i>Brachyramphus marmoratus</i>	Marbled murrelet	Threatened (1992)	Yes (1996). Revision Proposed (2006)
<i>Coccyzus americanus</i>	Western yellow-billed cuckoo	Candidate	No
<i>Strix occidentalis caurina</i>	Northern spotted owl	Threatened (1990)	Yes (1992)
<b>Mammals</b>			
<i>Martes pennanti pacifica</i>	Pacific fisher	Candidate	No

*Western Yellow-Billed Cuckoo*

Western yellow-billed cuckoos breed in dense willow and cottonwood stands on river floodplains (USFWS 2007). The project area does not contain habitat for western yellow-billed cuckoos. There is habitat for cuckoos in the project vicinity.

*Pacific Fisher*

Pacific fishers inhabit relatively undisturbed late-successional forest, nesting in rotting logs or tree cavities, and avoiding large open areas (Pacific Biodiversity Institute 2007). The project area does not contain habitat for Pacific fisher. There is habitat for fishers in the project vicinity.

### *Coho, Chinook, and Steelhead Habitat in the Van Duzen River*

Coho salmon, Chinook salmon, and steelhead trout are known to inhabit the Van Duzen River. The river provides habitat for salmonids up to river mile 47, where Eaton Rough Falls is a barrier to upstream migration. In general, salmonid habitat in the river is degraded due to low holding pool frequency, high water temperatures (especially in the autumn), and subsurface flows as a result of excessive sediment. The habitat quality has been degraded by both natural events (especially the 1964-65 flood) and anthropogenic events (especially timber harvest, road construction, and grazing), both of which have contributed to the high sediment input. Limiting factors include loss of pools and reduction of holding and rearing habitat. Fish stranding has been observed, especially at the confluence of the Van Duzen and Eel Rivers (Berg et. al. 2002).

The mainstem of the Van Duzen River is a migration corridor for salmonids. In addition, rearing habitat for juvenile steelhead can be found in the form of pockets of refugia, especially temperature-stratified pools (Personal Communication with Steve Cannata, Biologist, August 8, 2007).

Fish habitat mapping was performed along the gravel bar reach by Dennis Halligan (biologist, Natural Resource Management Corporation) in 2003. Water depth at riffle crests and the deepest parts of pools were measured, and the locations marked on an aerial photograph of the bar. Water depth varied from 0.5 ft. to 8.0 ft. Six pools and eight riffles were observed, with runs interspersed throughout the reach. Evidence of old redds was also observed. It is assumed that the gravel bar reach supports adult and juvenile salmonid migration, and may provide juvenile salmonid rearing habitat (especially steelhead) in the pools.

### *Northern Spotted Owl*

Northern spotted owls prefer old growth or mixed-age stands of mature and old growth trees. Superior habitat attributes include a multilayered, multispecies canopy dominated by large (>30-inch diameter at breast height) conifer overstory with an understory of shade-tolerant conifers or hardwoods; moderate to high (60-80%) canopy closure; substantial decadence in the form of large live conifers with deformities (cavities, broken tops, mistletoe infection); numerous large snags; a large accumulation of logs and woody debris on the forest floor; and a canopy open enough to allow owls to fly within and beneath. (Thomas 1990).

Owls nest in large live trees with broken tops or cavities. In northern California, owls roost in areas with moderate to high canopy closure (60-80%), multi-layered with multiple tree species. Foraging activities can take place in a wider array of forest types, including more open forests. While owls forage in dense forests, they also forage along the edges of dense forests and in more open forests for different prey (USFWS 2004). Nesting season is from February 1 through July 10 (USFWS 1998).

The project area does not contain habitat for northern spotted owls. However, northern spotted owls are known to inhabit the project vicinity. The CNDDDB Biogeographic Information System (BIOS) contains seven records within 1.32 miles of the Highway 36 Bridge (downstream end of the gravel bar).

### *Marbled Murrelet*

Marbled murrelet are long-lived seabirds that spend most of their life in the marine environment, but fly inland to nest. Courtship, foraging, loafing, molting, and preening occur in near-shore marine waters. Nesting generally occurs in old-growth forests, characterized by large trees (typically Douglas fir and coastal redwood), multiple canopy layers, and moderate to high canopy

closure (USFWS 2007). Nesting habitat is located close enough the marine environment for the birds to fly to and from the nest site. Nesting season is March 24 through September 15 (USFWS 1998).

The project area does not contain habitat for marbled murrelet. However, marbled murrelet are known to inhabit the project vicinity. The CNDDDB BIOS contains six records for murrelet within 0.79 miles of the bar.

Review of occurrences of rare and sensitive wildlife species recorded in CNDDDB (August 2007) for the Redcrest 7.5' USGS quadrangle revealed a total of nine species of birds, mammals, and amphibians, none of which have recorded occurrences in the project area. The project area and/or vicinity contain habitat for all nine species.

#### *Cooper's Hawk*

Cooper's hawk (*Accipiter cooperii*) inhabits woodlands, chiefly open, interrupted, or marginal. They nest mainly in riparian areas, in canyon bottoms and on river flood plains. The project area and vicinity contain habitat for Cooper's hawk.

#### *Northwestern Pond Turtle*

Western pond turtle (*Acinemys marmorata*) inhabits areas with permanent or nearly permanent water, with basking sites. It has been found on the Van Duzen River, in Van Duzen County Park (1.2 miles downstream the project area). The project area and vicinity contains habitat for northwestern pond turtle.

#### *Sonoma Tree Vole*

Sonoma tree vole (*Arborimus pomo*) inhabits the north coast fog belt in Douglas fir, redwood, and mountain hardwood-conifer forests, and feeds almost exclusively on Douglas fir needles. It has been found southeast of the project area, approximately 1 mile southeast of where Highway 36 crosses Grizzly Creek. The project area (gravel bar access road) and vicinity contain habitat for Sonoma tree vole.

#### *Townsend's Big-Eared Bat*

Townsend's big-eared bat (*Corynorhinus townsendii*) roosts in the open, hanging from walls and ceilings, but has been found along Grizzly Creek, in the vicinity of Grizzly Creek and the Van Duzen River (Grizzly Creek Redwoods State Park), in habitat dominated by redwood and Douglas fir. The project vicinity may contain habitat for Townsend's big-eared bat, especially the Highway 36 Bridge.

#### *Long-Legged Myotis*

Long-legged myotis (*Myotis volans*), a type of bat, is found in woodland and forest habitats, where it roosts in trees during the day, and caves/mines at night. It has been observed adjacent to Grizzly Creek State Park, along Grizzly Creek 0.25 miles upstream of the Van Duzen River. The project area and vicinity contains habitat for Long-legged Myotis.

#### *Yuma Myotis*

Yuma myotis (*Myotis yumanensis*) is found in open forests and woodlands with sources of water over which to feed. It has been observed along Grizzly Creek, 0.25 miles upstream of the Van Duzen River in habitat dominated by redwood and Douglas fir. The project area and vicinity contain habitat for Yuma Myotis.

*Osprey*

Osprey (*Pandion haliaetus*) inhabits areas with fresh water lakes and larger streams/rivers. It nests in treetops near good, fish-producing bodies of water. Ospreys have been found in the vicinity of the PL Van Duzen gravel bar, and the project area and vicinity contains habitat for osprey.

*Northern Red-Legged Frog*

Northern red-legged frog (*Rana aurora*) inhabits humid forests, woodlands, grasslands, and stream sides near dense riparian cover. It is usually near permanent water in damp woods and meadows. The project area and vicinity contain habitat for northern red-legged frog.

*Foothill Yellow-Legged Frog*

Foothill yellow-legged frogs (*Rana boylei*) inhabit areas that are partly shaded shallow streams and riffles with rocky substrate. The project area and vicinity contain habitat for foothill yellow-legged frogs.

Cultural Resources

Based on records held by the HCPW, Natural Resources Division, no archaeological or historical resources are known to exist within the project area.

**GENERAL LEAD AGENCY INFORMATION**

Lead Agency

Humboldt County Community Development Services Department, Planning Division

Staff Contact

Anita Punla, Senior Planner

Phone Number

(707) 445-7541

Address

3015 H Street  
Eureka, CA 95501

Surface Mining/Conditional Use Permit Number

SMR-03-86X/CUP-37-86X

Date Issued

Pending

Expiration Date

Pending

Financial Assurances

Approved June 2, 2009 (Humboldt County Board of Supervisors), updated annually

## DESCRIPTION OF MINING ACTIVITIES

HCPW plans to extract up to 3,000 yd<sup>3</sup> of gravel as frequently as annually or 9,000 yd<sup>3</sup> as often as once every three years, totaling no more than 45,000-yd<sup>3</sup> over a period of 15 years.

Gravel extraction on the Van Duzen Bar requires permit coverage from the following environmental regulatory agencies:

- Humboldt County Planning Division
- U.S. Army Corps of Engineers (ACOE)
- California Department of Fish & Game (DFG)
- Regional Water Quality Control Board (RWQCB)

In addition, due to the presence of wildlife federally listed as threatened, the National Marine Fisheries Service (NMFS) has written a biological opinion (BO) containing terms and conditions for gravel extraction on the Van Duzen Bar.

All proposed actions will conform to and comply with the requirements and conditions of all issued permits and the most current BO.

### Gravel Extraction

Traditional skimming is the preferred extraction method for this site, based on the topography and size of the bar. Other extraction methods that may be employed at the site include narrow skims, trenching, horseshoe skims, alcove extractions, and wetland pit methods. Volume, location and extraction method(s) will be determined using recommendations made by the County of Humboldt Extraction Review Team (CHERT) and participating regulatory agency staff.

CHERT is an independent team of objective experts in the fields of geology, hydrology/river geomorphology, and fisheries biology. CHERT assists gravel operators in extraction design, reviews proposed designs, and makes recommendations to bring designs into conformance with environmental permit conditions and requirements.

In the spring, CHERT, along with other regulatory agencies (typically ACOE, DFG, and NMFS representatives) will visit the site with HCPW staff to evaluate the availability of material, best location for an extraction, volume to be extracted, and type of extraction to perform. It is during the spring site visit that the fundamentals of the extraction such as extraction method, location, size, and logistics are discussed. By the end of the visit a basic design has been agreed upon, including peripherals like on-bar haul roads, temporary stockpile locations, vertical and horizontal setbacks from edge of water and environmentally sensitive areas.

Following the CHERT site visit, a pre-extraction proposal is prepared for CHERT and the other participating regulatory agencies. Spring or early summer annual monitoring cross-sections (MSL) and seasonal pre-extraction cross-sections (ESL) will be surveyed and superimposed on an aerial photograph of the site (Site Plan). The Site Plan also includes temporary haul road locations, limits of extraction, temporary stockpile locations, and the equipment staging area. This Plan will further include identification of environmentally sensitive areas, rare plant species and riparian vegetation known to exist within the project limits. A discussion of the proposed extraction methodology will be included in the proposal, along with a work plan for the proposed action. The following is a summarized list of information included in the extraction proposal:

- Monitoring cross-sections
- Extraction cross-sections
- 35% Exceedence Flow Elevations
- Extraction Volume Calculations
- Project Limits (to include area of equipment parking, fueling and maintenance, extraction, temporary roads/turnout and stockpile areas).
- Calculation of the area disturbed by the project (acres)
- Extraction Techniques
- Minimum Head of Bar Buffer
- Minimum Floor Design Elevation
- Habitat Mapping
- Woody Debris, Vegetation and Wetlands
- Structure Setbacks

The pre-extraction proposal is then submitted to CHERT and the approving agencies for review. If CHERT recommendations are favorable and ACOE, NMFS, and DFG staff provide concurrence, the operator may only begin harvest activities upon receipt of a Letter of Determination from ACOE and an approval letter from DFG regarding stream alteration. Only upon approval of the above-mentioned agencies can the operator commence operations.

Upon approval of the pre-extraction proposal, and prior to extraction activities, survey cut stakes depicting design elevations, cut slope design and location, temporary haul road alignment, and limits of operation will be set throughout the extraction area to guide equipment and set boundaries for the operation.

Access to the extraction site is via an existing graveled/paved haul road, which enters the gravel bar from the northeast side. A seasonal, temporary haul road is designed to traverse the open gravel bar by the shortest route possible and is further designed to avoid existing areas of riparian vegetation. The topography of the bar will be considered during the design of temporary roads to minimize disturbances associated with cut and fill during construction of these roads.



Access/Haul Road to Gravel Bar

Equipment utilized during the extraction operation may consist of a bulldozer, front-end loader, dump trucks, and water truck. Working within the pre-set cut stakes, the bulldozer or front-end loader will first construct a temporary haul road per approved alignment and design. This will be followed by equipment removing gravel from the extraction area(s) and creating temporary windrows or surge piles. A front-end loader will remove the material from the bar by placing it in dump trucks for transport to the offsite stockpile location for processing and storage.

Gravel extraction activities will be conducted after July 10 to avoid the northern spotted owl nesting period. FWS has determined based on the distance to the nearby old growth forest and the presence of Highway 36, that a seasonal restriction for marbled murrelet would not be necessary. The operation will typically take two to three weeks to conclude and must be terminated before winter rains begin. The removal of surge piles on the bar and final grading at end-of-day will occur after October 1. All gravel extraction activity must cease as of October 15 unless an approved river flow-monitoring plan is enacted and a time extension has been granted. Continuance of these activities beyond October 15 is dependent on submittal and approval of the plan prior to the October 15 termination date.

Dust control measures will consist of watering the haul road and surge pile/extraction area(s) as needed with a water truck. With approval from the participating regulatory agencies, water for dust suppression purposes may be sourced directly from the bar via a temporary sump, located at the downstream end of a large (dry) secondary channel or water may be delivered from an offsite source.

#### Post-Extraction Winterization and Monitoring

Following completion of the extraction, post-ESL will be surveyed through the harvested area. Any MSL transecting the harvested area will also be post-surveyed following completion of extraction operations and subsequent, comprehensive reports will be submitted to County Planning, CHERT, ACOE, DFG, and NMFS by December 1 of each year. After surveys are complete, the extraction area will be reclaimed according to permit requirements and CHERT

recommendations. This includes grading the extraction area to facilitate free drainage and prevent fish stranding. Temporary stockpiles will be removed from the bar and temporary haul roads on the bar will be scarified to reduce compaction. Any area outside the approved limits of operation will be straw mulched as necessary to reduce offsite sediment transport of fines associated with the disturbance. The permanent haul road to the bar will be winterized as necessary to reduce offsite sediment transport and all equipment will be removed from the site. Monitoring will consist of regular inspections of the site by HCPW personnel for stormwater management and security.

#### Processing Area Site Description

The upland area utilized for processing, sorting, and stockpiling could be described as disturbed grassland. This area is approximately 5 acres in size, is reasonably flat, is located north of Highway 36, and 1,725' northeast of the PL Van Duzen Bar. Local vegetation consists of Scotch Broom (*Cytisus scoparius*), annual grasses, and a few isolated second growth redwoods and alder. Due to the nature of the surrounding forest, it is safe to assume that this area was once old growth conifer. The site is also the location of a County owned, solid waste transfer facility, operated by Eel River Disposal. Access to the site is gated, the roadway is 24' wide, and the road surface is asphalt. The processing/stockpiling area is approximately 1.66 acres in size. A forested area approximately 150' in width separates the operation from the Van Duzen River along the northwest side. The area to the northeast of the project is dense second growth forest. There is a property consisting of a residence, outbuildings, and pasture located approximately 1,320' northeast of the project. Highway 36 lays 570' to the southeast and 835' to the southwest. Areas to the southeast and southwest consist of a mixture of various vegetation, primarily annual grasses, Scotch Broom, second growth redwood, and alder.

#### Processing Activities

A portable crusher assembly (Plant), consisting of a jaw and cone crusher, screen deck, conveyors, and a portable generator will be transported to the site and erected once every few years as demand for processed aggregate dictates. The Plant will be located just north of the County owned, solid waste transfer facility. Aggregate from the surge stockpile will be fed to the crusher via a front-end loader. Processed/sorted aggregate will then be transferred from the radial stackers (conveyors) to permanent, onsite stockpiles for future use by HCPW road crews. The protocol described below regarding fueling, lubing and maintenance activities will be adhered to during all phases of operation.

#### Post-Processing Winterization and Monitoring

Once processing activities are completed, the Plant will be dismantled and removed from the area. Any contaminated/hazardous material accumulated during the operation will be removed from the site per protocol described under the Hazardous Material Management section of this Plan. Stormwater runoff is not expected to be an issue at the site due to the broad band of vegetation surrounding the area of operation and the lack of gradient towards the perimeter of the site. Monitoring will consist of regular inspections of the site by HCPW personnel for stormwater management and security.

#### Traffic Control

Traffic control will consist of placing warning signs along Highway 36 on both sides of the gravel bar access road and road leading to the processing, sorting, and stockpiling site. It will not be necessary to detour traffic, or restrict vehicles to one lane. Minor traffic delays may occur as highway vehicles slow down when they encounter trucks entering or exiting the highway from

the bar access road. Delays will be temporary, ending when extraction and reclamation activities are completed and trucks and equipment leave the area.

### Fueling and Maintenance

All fueling, lubing, and equipment maintenance will be performed in a responsible manner. The designated staging/storage area for equipment, fuels, lubricants, and solvents related to extraction activities will be along a turnout adjacent to the access road, located approximately halfway between the inboard edge of the upper terrace (open bar) and Highway 36 (see Site Plan, Attachment 4). Equipment will be inspected for leaks prior to starting each shift, following lunch breaks, and at end of shift each workday. Maintenance involving the removal/repair of hydraulic cylinders/hoses or of reservoirs containing hazardous products will be performed over impervious fabric resistant to Total Petroleum Hydrocarbons (TPH). A minimum of two sealed 5-gallon spill kits will be kept onsite at all times during extraction/processing operations. All activities related to fueling, lubing, and maintenance will be performed in the designated staging area only. The single, valid exception to this requirement is when equipment breaks down onsite and must be repaired in the field. In those instances, every effort will be made to guard against and control spills. The functional condition of fuel transfer pumps, hose assemblies, and emergency shutoff switches will be evaluated prior to usage. Personnel tasked with fueling will remain near the emergency shutoff switch during fueling operations. Topping off of fuel tanks will not occur. Fuels and lubricants will not be stored onsite after-hours or on weekends. Although not described in this text, a Spill Contingency Plan will be included in the annual extraction proposal and will be subject to review and approval. Operations personnel will be familiar with all aspects of the Plan prior to the startup of extraction/processing operations.

Either an electric or gasoline powered water pump may be used to supply water to the crushing equipment; dust suppression system. When a gasoline powered water pump is utilized, it will be situated over a drip pan or impervious fabric resistant to TPH and will be securely stored or removed from the site at end of shift each workday.

The designated staging/storage area for equipment, fuels, lubricants, solvents, and maintenance related to processing, sorting, stockpiling activities would occur within the boundary of operation as depicted in the Site Plan (see Attachment 4). Fueling, lubing, and maintenance will be performed in accordance with the above-mentioned protocol as it relates to extraction activities. A minimum of two sealed 5-gallon spill kits will be kept onsite during processing activities. One sealed 5-gallon spill kit will be kept onsite during off-haul activities from the stockpile area.

### Hazardous Material Management

If leaks or spills occur in the area of operation during any extraction, processing, or stockpiling operations, they will be controlled immediately. All contaminated soil will be recovered from the site and stored in DOT approved containment vessels. All stored contaminated/hazardous material will be removed in a timely manner and disposed of at an approved disposal facility.

### Interim Activities

Interim monitoring will consist of regular inspections of the site by HCPW personnel for stormwater management and security.

### Annual Monitoring and Reporting Activities

In year when gravel extraction does not occur, annual monitoring consists of surveying the pre-established MSL as required by the permitting agencies, with results submitted to CHERT, ACOE, DFG, and NMFS by December 1 of each year. Humboldt County Planning Division staff

also inspects the gravel bar annually. Reporting includes annual reports submitted to the local lead agency and California Department of Conservation as required by SMARA. Following permit expiration or final closure of the site, no subsequent monitoring/reporting will be performed.

## FINANCIAL ASSURANCES

Financial assurance cost estimates for 2009 are outlined in Table 3, below. Financial assurances are updated annually.

Table 3 - Financial Assurances 2009

ACTIVITY	COST (\$)
<i>Direct Costs</i>	
Primary Reclamation Activities (59.7%) (finished grading)	410.41
Monitoring Costs (30.3%) (surveyed cross-sections, 1 year)	208.30
<i>Indirect Costs</i>	
Contingencies (10%)	68.74
Lead Agency Administration Cost	500.00
<i>Total Estimated Cost</i>	<i>\$1,187.45</i>

## RECLAMATION ACTIVITIES

### Post-Extraction Reclamation Activities

Reclamation of the gravel bar is ongoing and is completed at the end of each extraction event. The following is a restatement in list form of primary activities that take place following extraction:

- Temporary stockpiles are removed from the bar.
- Incidental holes, depressions, or any other features created during extraction activities are graded smooth to facilitate free drainage and prevent fish stranding.
- Haul roads on the bar are scarified to reduce compaction.
- Any disturbed area outside the approved limits of operation is groomed and straw mulched as necessary to reduce offsite sediment transport of fines associated with the disturbance.
- Post-extraction cross-sections are surveyed and a post-extraction report filed with CHERT and regulatory agencies.

### Final Reclamation Activities

#### *Gravel Bar/Access Road*

Final reclamation activities will commence when mining on the PL Van Duzen Bar by HCPW under this Reclamation Plan has ceased. In addition to the post-extraction reclamation activities,

and with property owner concurrence, the gravel bar access road will be decommissioned by scarifying to reduce compaction. The road alignment will then be seeded with fast growing native grasses and mulched for erosion control. Due to the fact that the road is no wider than 15 ft. and surrounded by forest, it is anticipated that local tree species (redwood, Douglas fir) will naturally invade the area.

#### *Processing/Stockpile Area*

Final reclamation activities in this area may not commence for several years following reclamation of the gravel bar access road as it is anticipated that the volume of aggregate processed and stockpiled at the site will provide HCPW material for several years into the future. As the supply of various products is consumed, reclamation may be completed in phases. The primary reclamation of this area will be the removal of residual alluvial material imported from the river bar. Once this phase of reclamation is completed, the site will be finish graded to duplicate the topography of the surrounding, undisturbed portion of the meadow and reseeded with a mix of native grasses commonly used for erosion control. As the riparian corridor between the operations area and the riverbank is 150 ft. wide and has not been disturbed, it is not anticipated that restoration or re-vegetation associated with this area will be necessary.

#### Post Reclamation Land Use

##### *Gravel Bar/Access Road*

The land use designation for this area (assessor parcel #209-201-010) is timber production, and the land is zoned timber production zone. The extraction area is river gravel bar below ordinary high water, and naturally contains no vegetation appropriate for timber production. Redwood and Douglas fir trees surround the 800 ft. long x 15 ft. wide access road. The roadbed will be decommissioned and the alignment used for timber production when final reclamation is complete. There will be no mining-associated activities by HCPW on the remaining portion of the parcel.

##### *Processing/Stockpile Area*

The land use designation for this area (assessor parcel #206-262-019) is agricultural or forest products processing plants, which includes any use not specifically enumerated in this Division, if it is similar to and compatible with the uses permitted in the AE Zone. This parcel is zoned Agricultural Exclusive. The area that is in use as a processing and stockpile site will be reclaimed to a state compatible with an AE zone use as described above under Final Reclamation. That portion of the site currently being utilized as a solid waste transfer facility will not be considered for reclamation.

#### Time Schedule

##### *Gravel Bar/Access Road*

Annual Reclamation will be completed immediately after each extraction and associated post-extraction survey, and before winter rains begin. Final reclamation will immediately follow the last extraction and associated post-extraction surveys. Annual reclamation requires less than one day to complete. Final reclamation at the end of the project may take 2-5 days to complete.

##### *Processing/Stockpile Area*

Final reclamation of the processing/stockpile location will commence as processed material is removed from the site. Removal of these materials is dependent on demand. Years with above-

average rainfall will require above-average road repair and deplete this source rapidly, whereas several years with below-average rainfall will result in less usage.

### Topography

#### *Gravel Bar/Access Road*

The gravel bar will be finish graded, removing all depressions within the extraction area. The access road will be decompacted (ripped) along its length to reduce compaction. The portion of the road that is surfaced will be ripped and the asphalt removed from the site. If removal of the asphalt results in depressions, those areas will be resoiled as necessary to replicate the surrounding topography.

#### *Processing/Stockpile Area*

Once the residual alluvial material has been removed, the site will be finish graded to replicate the topography of the surrounding, undisturbed portion of the meadow. The existing access road will not be decommissioned, as it will continue to be utilized by the solid waste transfer facility.

### Resoiling

#### *Gravel Bar/Access Road*

The extraction area is an alluvial deposit below the ordinary high water mark that does not include topsoil. As there is no evidence of deep grading on the access road that would have resulted in the removal of all topsoil, no topsoiling is planned for the graveled portion of this road. The paved portion of the roadway may require resoiling following removal of the asphalt to create homogeneous elevation, consistent with those in the surrounding area.

#### *Processing/Stockpile Area*

It is not expected that topsoiling will be necessary to complete finish grading at the site as there is no evidence of depressions or other features that would require fill.

### Revegetation

#### *Gravel Bar/Access Road*

There is no vegetation in the extraction area other than annual grasses, Scotch Broom, and isolated clumps of willow. Riparian vegetation has not been disturbed during extraction activities, therefore no revegetation of the open bar surface will occur during final reclamation. Revegetation of the access road alignment will consist of seeding with a mix of native grasses commonly used for erosion control. The seed mix will likely contain Cucamonga brome (*Bromus carinatus* "Cucamonga"), three weeks fescue (*Vulpia microstachys*), and tomcat clover (*Trifolium wildenovii*), or similar species, and will be applied at a rate of 45 pounds/acre. Seed application will be done shortly after the road alignment is ripped in late autumn. The seeded area will be mulched with weed-free straw. Revegetation success will be based on aerial coverage of 80% one year after planting and 97% two years after planting. Subsequent planting/mulching will be done as necessary to facilitate meeting these goals. As the area surrounding the road is heavily forested, it is anticipated that shrub and tree species will naturally encroach on the road alignment. Shrubs and trees will be included in the coverage calculations.

### *Processing/Stockpile Area*

Revegetation of the operational area will occur prior to fall rains once stockpiles are removed and the site is finish graded. An erosion control mix similar to that applied to the gravel bar access road will be used in this area as well. The seeded area will be mulched with weed-free straw. Revegetation success will be based on aerial coverage of 80% one year after planting and 97% two years after planting. Successive planting/mulching will be done as necessary to facilitate meeting these goals. No trees were disturbed or removed during initial site preparation or subsequent years of operation (Personal Communication with senior roads personnel) therefore; no areas of this site will be reforested. Once the river-run stockpile has been removed, it may be necessary to construct an earthen berm to intercept and control stormwater runoff from the northwest perimeter of the site. If constructed, the berm will be seeded with an erosion control mix and mulched with weed-free straw prior to winter rains.

### Post-Revegetation Monitoring

Post-revegetation monitoring of both sites will consist of individual three-year Monitoring Plans developed to determine the success of revegetation. As commencement of final reclamation of the sites will likely occur at different times, each Monitoring Plan will be initiated as each site is reclaimed. Revegetation success will be determined by assessing percent of aerial cover in sample plots located on the road alignment. The number, size, and location of the plots will be determined by a qualified botanist, and will also perform cover assessments. In addition, photographs will be taken at established photo points to document revegetation status.

### Invasive Weed Control

Invasive weeds identified as either on or near areas to be decommissioned and revegetated will be removed during reclamation. Invasive weed status will be monitored during post-reclamation monitoring. Invasives that are identified during monitoring will be removed.

### Impact of Reclamation on Future Mining in Area

Reclamation of the gravel bar will not affect the possibility of future mining at this site. Continued landslides upstream of the Van Duzen Bar will perpetuate sediment transport to the site into perpetuity. Reclamation of the processing, sorting, and stockpiling site will not affect the possibility of future, like operations at this site as well, due to the fact that the area will not be reforested.

### Impact of Reclamation on Public Health and Safety

The final topography of the sites, once reclamation is completed will not pose a hazard to the public. All equipment will be removed from the sites. Any contaminated material will have been removed; therefore there will be no risk of exposure to hazardous materials. Both sites are privately owned. Public access to the HRC property will be allowed or restricted at the property owner's discretion. The County owned property will continue to be utilized as a solid waste disposal and transfer facility and will remain accessible to the Public during business hours. The site access road is gated to deter access to the Public during non-business hours but will continue to be accessible by foot.

## RECLAMATION PERFORMANCE STANDARDS

### Wildlife Habitat

*Objective – Maintenance and improvement of habitat for anadromous fish.*

Extractions will be designed, with the assistance of CHERT, ACOE, DFG and NMFS, to minimize impacts to fish and fish habitat. Only during rare instances will extraction designs be proposed and approved below 35% Exceedence Flow (E.F.) elevations. The 35% E.F. criteria was established by NMFS to minimize impacts associated with fine sediment transport from the extraction area during the initial high flow event. This is typically a period when large numbers of salmonids migrate upstream through the reach to spawn. By limiting extraction design elevations, it is assumed that the majority of salmonids will have passed through the reach prior to flows overtopping the bar and flushing fine sediment from the extracted area into the stream. Following inundation and flushing of the extraction site and as flows diminish, an armoring effect takes place on the bar surface. This condition binds and stabilizes aggregate and fine sediment, thereby reducing sediment transport during subsequent high-flow events that occur over the course of the winter. Often times, unique extraction methods are utilized to construct salmonid migration routes through restricted areas of the reach or extraction methods may be applied that create fish habitat or enhance existing habitat. Placement of large woody debris (LWD) through the extracted area or in the vicinity of the extraction is an accepted method of creating high-flow refugia or channel complexity features and may be incorporated into a project design as well.

### Backfilling, Regrading, Slope Stability, and Contouring

*Objective – Reduce possibility of fish stranding.*

During seasonal as well as final reclamation, all extraction areas will be graded to finish form to alleviate the potential for fish entrapment associated with depressions or other unnatural features that may have been created during extraction operations. The gravel bar access road will be decompacted by ripping in preparation for revegetation. The processing, sorting, and stockpiling area will be regarded to duplicate the surrounding landscape and to prepare for revegetation.

### Revegetation

*Objective – Reestablish vegetation consistent with seasonally inundated gravel bar. Reestablish vegetation on access road alignment and processing area consistent with surrounding area.*

There is little vegetation on the gravel bar and it will be allowed to revegetate as flow events permit. Sparse colonies of riparian vegetation (willow) do occupy areas of the bar and have not been disturbed by extraction activities. Natural regeneration of riparian vegetation and establishment of new colonies is determined by the magnitude of winter high-flow events. Revegetation of the access road and processing site will initially be for erosion control. Tree and shrub species from the surrounding area will be allowed to encroach onto the decommissioned roadway. Invasive species monitoring and eradication will continue for three years following final reclamation.

### Drainage, Diversion Structures, Waterways, and Erosion Control

*Objective – Reestablish natural waterway of Van Duzen River, protect river from fine sediment input due to extraction and processing activities.*

Extraction activities will be completed before the site is inundated by winter high flows. Reclamation following each extraction season will remove depressions and other manmade

features created by extraction activities. Neither the roads nor the processing site should require sediment controls due to hardened road surfaces, surrounding vegetation, and topography. Erosion control measures may be required following removal of the river-run stockpile located at the northwest edge of the processing area.

#### Prime Agricultural Land

*Objective – No loss of prime agricultural land.*

The gravel bar does not constitute prime agricultural land. The access road traverses land with designated prime agricultural soils. Decommissioning of the road will be done at the property owner's discretion. The processing site is comprised of prime agricultural land and will be reclaimed as such.

#### Other Agricultural Land

*Objective – No loss of other agricultural land.*

The gravel bar does not constitute other agricultural land. The access road traverses land designated prime agricultural land. Decommissioning of the road will be done at the property owner's discretion.

#### Building, Structure, and Equipment Removal

*Objective – Remove all structures and equipment associated with the mining and reclamation operation.*

There are no building or structures associated with the project. All equipment and paraphernalia used in the mining, processing, and reclamation will be removed from the site when reclamation is completed.

#### Stream Protection

*Objective – Return stream to natural condition.*

After extractions, the bar will be graded smooth, removing depressions. The characteristics of river hydraulics will allow for full replenishment of extracted areas and removal of temporary roadbeds.

#### Topsoil Salvage, Maintenance and Redistribution

*Objective – Resoil extraction area and access road alignment to support revegetation and post-reclamation land use.*

There is no topsoil on the gravel bar therefore, no topsoil placement need occur on the bar. The access road will be ripped to decompact the ground. Minimal to no topsoil will be placed on the alignment as no evidence of topsoil removal is visible. It is not expected that topsoiling will be necessary to complete finish grading at the processing, sorting, and stockpiling site as there is no evidence of depressions or other features that would require fill.

#### Tailings and Mine Waste Management

*Objective – Mine waste and tailings will be disposed of or reclaimed.*

There is no tailings or waste associated with the operation. Excavated material is transferred to the processing site where it is processed and utilized for road maintenance and repair projects resulting in no tailings or mine waste. A small amount of fine sediment residue associated with loadout operations may not be recoverable from the gravel bar. As winter storm events occur and the site becomes inundated, the material will be discharged downstream. Due to regulations that

assure mining operations do not exceed the 35% E.F. elevations, the river will be in a highly turbid state prior to inundation of the mined area.

#### Closure of Surface Openings

*Objective – Protect wildlife and the public from open wells, shafts, etc.*

There will be no drill holes, water or monitoring wells, shafts, tunnels, or other surface openings to underground workings to be abandoned or closed, as this is a surface mining operation with no openings to underground workings. With approval from the participating regulatory agencies, water for dust suppression purposes may be sourced directly from the bar via a temporary sump excavated into the gravel bar. Once extraction activities have been completed, seasonal reclamation will include backfilling the sump to original grade.

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**PERSONS CONSULTED:**

Steve Cannata, Biologist. California Department of Fish & Game. August 27, 2007.

Jim Falls, Geologist. California Geological Survey. August 31, 2007.

## STATEMENT OF RESPONSIBILITY

I, the undersigned, hereby agree to accept full responsibility for reclamation of all mined lands as described and submitted herein and in conformance with the applicable requirements of Article 1 and 9 (commencing with Sections 3500 *et seq.* and 3700 *et seq.*, respectively) of Chapter 8 of Division 2 of Title 14 of the California Code of Regulations, the Surface Mining and Reclamation Act of 1975, as amended (Section 2710 *et seq.* of the Public Resources Code), and with any modifications requested by the administering agency as conditions of approval.

Signed this \_\_\_\_\_ day of, \_\_\_\_\_ 20 \_\_\_\_\_

### MINE OPERATOR OR OPERATOR'S AGENT

(Printed Name) Doug Dinsmore

(Mailing Address) 1106 Second Street

Eureka, CA (5501)

(Signature) \_\_\_\_\_

MINE NAME PL Van Duzen Bar

CA MINE ID # 91-12-0061

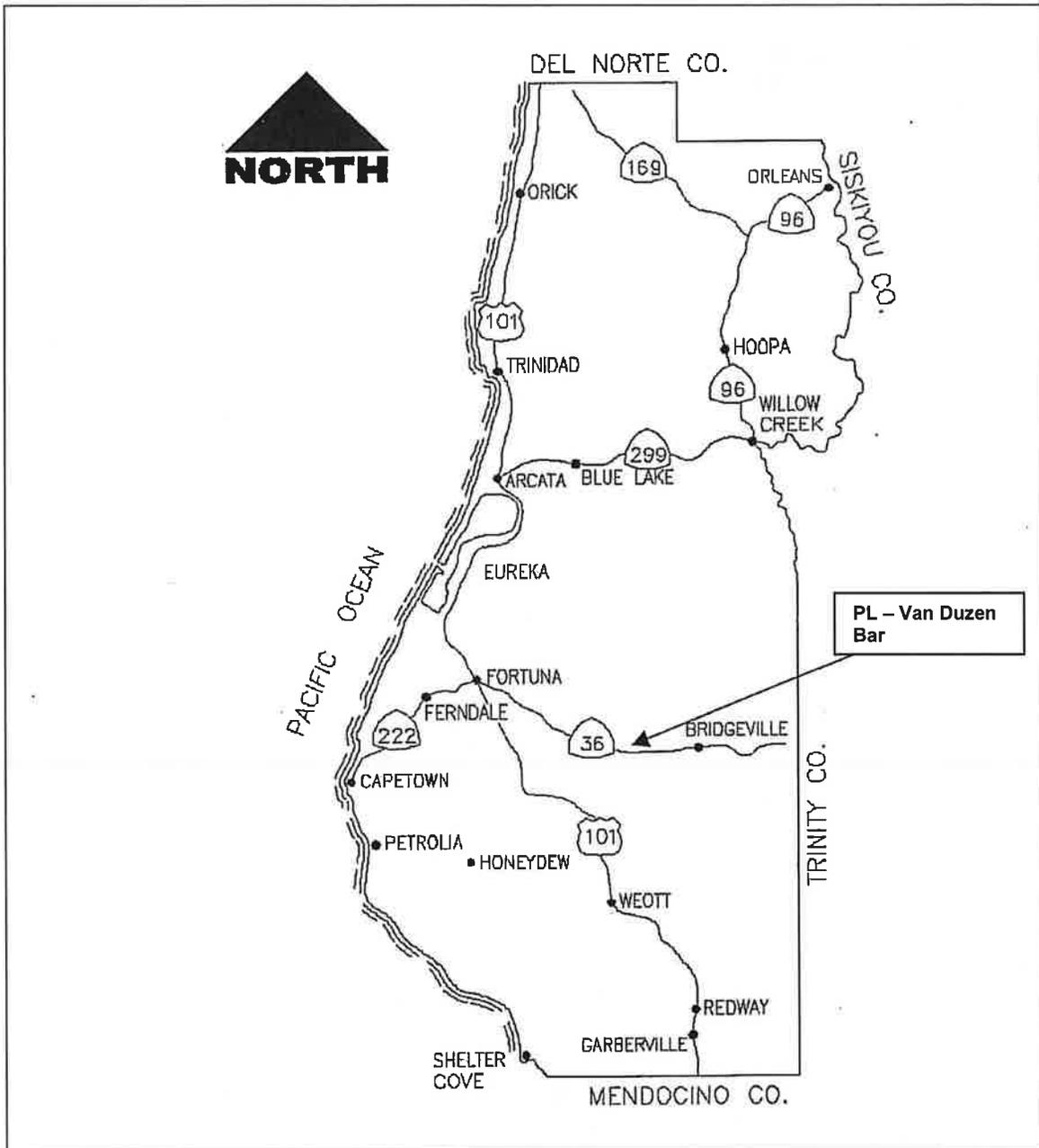
The original must be given to the lead agency and one copy to be forwarded by the lead agency to:

Department of Conservation  
Office of Mine Reclamation  
801 K Street, MS 09-06  
Sacramento CA 95814-3529

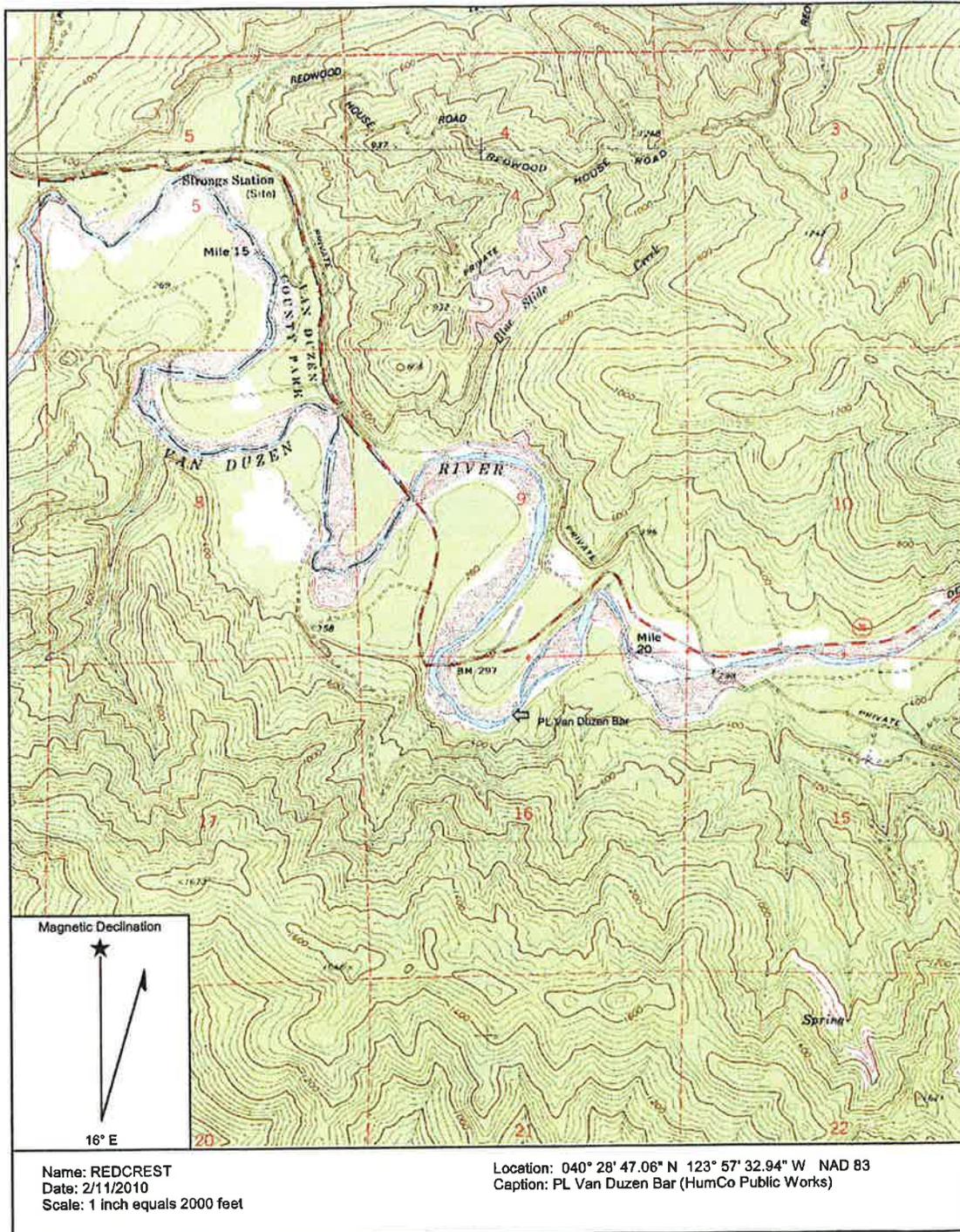




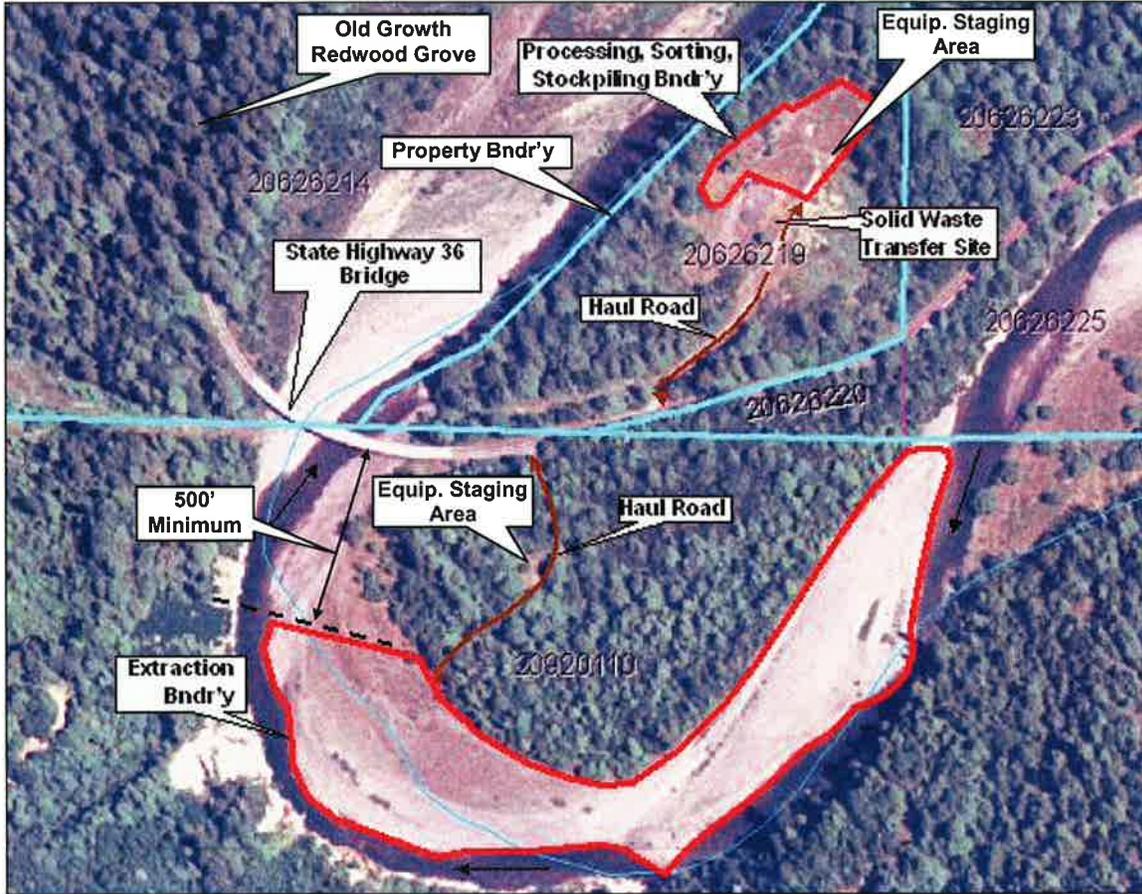
## ATTACHMENT 2 – Location Map



# ATTACHMENT 3 – Vicinity Map



# Attachment 4 – Site Map





**Native Plant Nursery**

HFAC Nursery Location: 1280 Hatchery Rd.  
Blue Lake CA 95521

HFAC Nursery Phone: 825-746 or 498-2123  
HFAC Office Phone 822-3834

Prepared For: Doug Dinsmore  
Humboldt County Public Works  
1106 Second Street  
Eureka, CA 95501

Prepared By: Suzanne Isaacs,  
Humboldt Fish Action Council (HFAC)  
Nursery Manager  
and Revegetation Specialist  
sli@reninet.com

Submitted: April 9, 2010

## Introduction

Suzanne Isaacs, nursery manager and botanist for Humboldt Fish Action Council (HFAC) has prepared the following rare plant survey in response to a request by Humboldt County Public Works. Two quarry sites, both located in Humboldt County California, were surveyed for different listed species. The first quarry site is located off of highway 36 just past the county park behind the county refuse disposal site. The second quarry site surveyed is located along Monument Road west of Rio Dell. A survey was conducted April 6th, 2010 to determine the presence of federal, state, or California Native Plant Society (CNPS) listed plants including but not limited to Oregon polemonium (*Polemonium carneum*), long-beard lichen (*Usnea longissima*), maple-leaved checkerbloom (*Sidalcea malachroides*) and Howell's montia (*Montia howellii*). No listed plants were encountered.

### 1. Highway 36; PL-Van Duzen Processing Area

- **1.1: Area Description:** The area surveyed lies northwest of the solid waste disposal site. The gravel road accessing the site and the 1.6-acre processing and stockpiling area were surveyed via foot. Particular attention was given to the two ephemeral wet areas located on the northeast edge of the processing site.
- **1.2: Vegetation:** No special status species were found. The only hydrophyte found in the wet areas was the facultative wetland species, nutsedge (*Cyperus eragrostis*). The site was covered with the common non-native perennial and annual grasses such as sweet vernal grass (*Anthoxanthum odoratum*), Vulpia, tall fescue (*Festuca arundinacea*) in addition to shrub scotch broom (*Cytisus scoparius*). No recommendations are necessary as no species of concern were encountered.

### 2. Monument Quarry:

- **2.1: Area Description:** The area surveyed included the entire quarry site. As there was sparse vegetation in the center of the quarry, the survey was conducted in two loops that encompassed the entire perimeter of the quarry where the bare soil and rock extraction area abuts vegetation.
- **2.2: Vegetation:** No special status species were found though this site was botanically diverse. Remnant patches of herbaceous understory plant species included wild ginger (*Asarum caudatum*), bleeding heart, (*Dicentra formosa*), fringe cups (*Tellmia grandiflora*) and adders tongue (*Scoliopus bigelovii*). Red flowering currant (*Ribes sanguineum*) and canyon gooseberry (*Ribes menziesii*) were found growing together. It cannot be definitively determined that the fruticose lichen, *Usnea longissima* is not there. Generally, the listed lichen grows on large old growth trees of which this site has very few trees of that stature. An effort was made to find any wind-blown lichen material that may have fallen from the few tall trees growing around the perimeter of the surveyed site.

No recommendations are necessary as no species of concern were encountered.

Suzanne Isaacs,  
Humboldt Fish Action Council (HFAC)  
Nursery Manager and  
Revegetation Specialist

**ATTACHMENT 4**  
**Referral Agency Comments**



# DEPARTMENT OF CONSERVATION

## OFFICE OF MINE RECLAMATION

801 K STREET • MS 09-06 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-1230 • FAX 916 / 445-6066 • TDD 916 / 324-2555 • WEBSITE conservation.ca.gov

September 30, 2009

**VIA EMAIL: [mryan@co.humboldt.ca.us](mailto:mryan@co.humboldt.ca.us)**  
**ORIGINAL SENT BY MAIL**

Meghan Ryan  
 Community Development Services, Planning Division  
 County of Humboldt  
 3015 H Street  
 Eureka, California 95501

Dear Ms. Ryan:

VAN DUZEN GRAVEL BAR  
 CA MINE ID #91-12-0061

The Department of Conservation's Office of Mine Reclamation (OMR) has reviewed the reclamation plan for the Van Duzen Gravel Bar. The applicant is proposing to mine aggregate on a 19-acre project site for a period of 12 years. The applicant estimates that up to 3,000 cubic yards of material will be removed annually. The proposed project site is located 8.5 miles east of Carlotta on State Highway 36. OMR staff conducted a site visit on September 8, 2009 to discuss reclamation issues.

The Surface Mining and Reclamation Act of 1975 (SMARA) (Public Resources Code section 2710 et seq.) and the State Mining and Geology Board Regulations (California Code of Regulations (CCR) Title 14, Division 2, Chapter 8, Subchapter 1) require that specific items be addressed or included in reclamation plans. The following comments prepared by Beth Hendrickson, Restoration Ecologist, and Fred Gius, Engineering Geologist, are offered to assist in your review of this project. We recommend that the reclamation plan be supplemented to fully address these items.

### **Mining Operation and Closure**

(Refer to SMARA sections 2770, 2772, 2773, CCR sections 3502, 3709, 3713)

The reclamation plan lacks some of the details necessary to determine compliance with SMARA. For example, the 'DESCRIPTION OF MINING ACTIVITIES' section of the reclamation plan references the preparation of a pre-extraction report that will evaluate

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OCT 5 2009

HUMBOLDT COUNTY  
 PLANNING DIVISION

the availability of material, extraction locations, and provide the proposed extraction methodology but does not provide these details in the reclamation plan. Since these details are not presented in the reclamation plan, a copy of the extraction plans provided to the County should be submitted to OMR prior to extraction activities to ensure the reclamation plan requirements have been met.

SMARA section 2772(c)(5) requires that a map of the site clearly show topographic details of the site as well as the limits of mining, reclamation, proposed access roads and existing roads on site, and utilities within or adjacent to the mine site. The reclamation plan only includes a Final Reclamation Site Plan, which shows some of the required elements. An additional site plan should be included in the reclamation plan that presents the required existing topographic details and drainage patterns. Details from previous annual monitoring can be used to prepare the site plan. The site plan(s) should be of readable scale.

### **Hydrology and Water Quality**

(Refer to SMARA sections 2772, 2773, CCR sections 3502, 3503, 3706, 3710, 3712)

CCR section 3503(a)(2) requires stockpiles to be managed to minimize water and wind erosion. The reclamation plan should discuss erosion control measures for all stockpiled material, including the temporary stockpiles created on the bar.

CCR section 3710(b) requires that in-stream mining be conducted in accordance with California Department of Fish and Game Code Section 16600 et seq., Clean Water Act Section 301 et seq., Clean Water Act Section 404 et seq., and Section 10 of the Rivers and Harbors Act. All pertinent agencies, such as the Department of Fish and Game, Regional Water Quality Control Board, State Water Resources Control Board, U.S. Army Corps of Engineers, Department of Water Resources, etc., should be contacted about the proposed surface mining operation. Any requirement by these and other local, state, or federal agencies that will be used to comply with SMARA should be incorporated in the reclamation plan. For example, the Department of Fish and Game should be contacted about this project, and the requirements of the Streambed Alteration Agreement should be incorporated in the reclamation plans along with a copy to ensure compatibility with the mining and reclamation plans.

### **Resoiling and Revegetation**

(Refer to SMARA section 2773, CCR sections 3503, 3704, 3705, 3707, 3711)

The plan states that the access road will be scarified and revegetated at final reclamation, subject to the wishes of the property owner. All roads must be reclaimed unless they can be shown to be necessary to the end use of the site. The seed mix to be used in reclamation of the road should be specified in the plan, along with seeding amounts.

Weeds are required to be controlled. The plan should state that any weeds known to be present in the area will be controlled whenever weed cover reaches a specified threshold level.

**Administrative Requirements**

(Refer to SMARA sections 2772, 2773, 2774, 2776, 2777, PRC section 21151.7)

SMARA section 2772(c)(10) states that the reclamation plan shall include an applicant's signed statement accepting responsibility for reclamation per the approved reclamation plan. A signed statement of responsibility should be included in the reclamation plan.

Recent legislation (Senate Bill 668, Chapter 869, Statutes of 2006) amended Public Resources Code section 2774 with respect to lead agency approvals of reclamation plans, plan amendments, and financial assurances. These new requirements are applicable to the reclamation plan. Once OMR has provided comments on the reclamation plan, a proposed response to the comments must be submitted to the Department at least 30 days prior to lead agency approval. The proposed response must describe whether you propose to adopt the comments. If you do not propose to adopt the comments, the reason(s) for not doing so must be specified in detail. At least 30 days prior notice must be provided to the Department of the time, place, and date of the hearing at which the reclamation plan is scheduled to be approved. If no hearing is required, then at least 30 days notice must be given to the Department prior to its approval. Finally, within 30 days following approval of the reclamation plan, a final response to these comments must be sent to the Department. Please ensure that the County allows adequate time in the approval process to meet these new SMARA requirements.

If you have any questions on these comments or require any assistance with other mine reclamation issues, please contact me at (916) 445-6175.

Sincerely,



Beth Hendrickson, Acting Manager  
Reclamation Unit



DEPARTMENT OF PUBLIC WORKS

COUNTY OF HUMBOLDT

MAILING ADDRESS: 1106 SECOND STREET, EUREKA, CA 95501-0579  
AREA CODE 707 / FAX 445-7409

ARCATA-EUREKA AIRPORT TERMINAL  
McKINLEYVILLE 839-5401

PUBLIC WORKS BUILDING SECOND & L ST., EUREKA			
ADMINISTRATION	445-7491	NATURAL RESOURCES	445-7741
BUSINESS	445-7652	PARKS	445-7651
ENGINEERING	445-7377	ROADS & EQUIP MAINT.	445-7421
	ARCHITECT	445-7493	

CLARK COMPLEX  
HARRIS & H ST., EUREKA  
LAND USE 445-7205

November 9, 2009

TO: Meghan Ryan, Planner I

CC: Hank Seemann, Environmental Services Manager  
Jim Brewer, Roads Superintendent

FROM: Ann Glubczynski, Environmental Analyst *ag*

**SUBJECT: Response to Office of Mine Reclamation Comments – Pacific Lumber Bar/Van Duzen River (PL Bar)**



Following are responses to the September 30, 2009 comments by Beth Hendrickson [Office of Mine Reclamation, (OMR)] regarding the PL Bar permit renewal (OMR comments attached).

**Mining Operation and Closure**

1. Additional Information in Reclamation Plan Description of Mining Activities – OMR requested additional information and details regarding mining activities on the PL Bar. The attached Amended Final Reclamation Plan (Amended Plan) has been updated to include more detailed description of proposed mining activities on the PL Bar. No extraction has been performed on the bar since the inception of CHERT and the regulatory agency “pre-extraction report” so no pre-extraction report is available for inclusion at this time. When the next extraction is planned for the PL Bar, a copy of the pre-extraction report will be forwarded to OMR for their review and comment.
2. Reclamation Site Plan (Site Plan) – OMR requested additional details be included on the Site Plan. An updated Site Plan which includes bar topography, drainage, and mining/reclamation limits is attached. Note that the contours on the Site Plan were estimated using the 2009 Monitoring Cross Section survey data. This information, the use of which was suggested by OMR, was not collected with the intention of producing a topographic map of the entire bar. Therefore, the topography shown between the cross sections is an estimate and should not be interpreted as an accurate depiction of the gravel bar surface. Also note that the topography shown is only a snapshot of autumn 2009. Since the bar is below ordinary high water it is expected that topography will change every year when the bar is inundated by winter flows.

## Hydrology and Water Quality

3. Erosion Control Measures for Stockpiled Material – OMR requested additional information on erosion control measures for stockpiled materials. There are no permanent stockpiles associated with the PL Bar. During extraction, which occurs in late summer when river flows are lowest and there is the least chance of precipitation, gravel material is typically stockpiled on the bar temporarily until it can be loaded into dump trucks and hauled off-site. As these temporary stockpiles consist of river run gravel from the bar, the primary best management practice for controlling sediment input to the river is a minimum setback from the live channel. This distance is set by the regulatory agencies and is based on bar topography at the time of extraction, but will be at least 10 feet.
4. Regulatory Agency Requirements/Conditions – OMR has stated that other regulatory agencies in whose jurisdiction mining will be done be contacted, and any requirements by other regulatory agencies should be incorporated into the Reclamation Plan. Mining will not occur until all environmental permits are in place. The Reclamation Plan has been amended to incorporate all regulatory agency requirements and conditions by reference.

## Resoiling and Revegetation

5. Revegetation of Access Road – OMR noted that all roads must be reclaimed unless they are necessary to the end use of the site. The property owner's intentions for the site after final reclamation are unknown, and so the access road will be reclaimed. The Reclamation plan has been amended to include additional details on access road reclamation, including revegetation.
6. Weed Control – OMR noted that weeds known to be present in the area should be controlled. The gravel bar is below ordinary high water and will not be revegetated. The access road will be revegetated with native plant species. During revegetation and monitoring any invasive weeds found in the project area will be removed. The Reclamation Plan has been amended to address weed control.

## Administrative Requirements

7. Signed Statement of Responsibility – A Statement of Responsibility will be signed and submitted after the Final Amended Plan is approved by the Humboldt County Planning Commission.
8. The remaining OMR comments under Administrative Requirements are addressed to the Humboldt County Planning Division and therefore Public Works has no response.



# DEPARTMENT OF CONSERVATION

## OFFICE OF MINE RECLAMATION

801 K STREET • MS 09-06 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-1230 • FAX 916 / 445-6066 • TDD 916 / 324-2555 • WEBSITE [conservation.ca.gov](http://conservation.ca.gov)

September 30, 2009

**VIA EMAIL: [mryan@co.humboldt.ca.us](mailto:mryan@co.humboldt.ca.us)**  
**ORIGINAL SENT BY MAIL**

Meghan Ryan  
Community Development Services, Planning Division  
County of Humboldt  
3015 H Street  
Eureka, California 95501

Dear Ms. Ryan:

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CA MINE ID #91-12-0061

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If you have any questions on these comments or require any assistance with other mine reclamation issues, please contact me at (916) 445-6175.

Sincerely,



Beth Hendrickson, Acting Manager  
Reclamation Unit



## **FINAL RECLAMATION PLAN**

**PACIFIC LUMBER BAR – VAN DUZEN RIVER  
CA MINE ID #91-12-0061  
(Humboldt County)  
August 2009  
Amended November 2009**

Prepared by:

**Humboldt County Public Works Department  
Natural Resources Division  
1106 Second Street  
Eureka, CA 95501  
(707)445-7741**

## TABLE OF CONTENTS

OPERATOR.....	4
OWNER/SURFACE RIGHTS.....	4
GENERAL MINING OPERATION INFORMATION.....	4
Mined Mineral Commodity.....	4
Estimated Production.....	4
Total Acres to be Disturbed.....	4
Total Acres to be Reclaimed.....	4
Date of Start-Up.....	4
Estimated Date of Closure.....	4
LOCATION.....	4
SITE DESCRIPTION.....	5
DESCRIPTION OF ENVIRONMENTAL SETTING.....	6
Geology/Soils.....	6
Hydrology.....	7
Water Quality.....	8
Vegetation.....	8
Running Pine.....	8
Howell's montia.....	8
Seacoast Ragwort.....	9
Wildlife.....	9
Western Yellow-Billed Cuckoo.....	9
Pacific Fisher.....	9
Coho, Chinook, and Steelhead Habitat in the Van Duzen River.....	10
Northern Spotted Owl.....	10
Marbled Murrelet.....	11
Cooper's Hawk.....	11
Northwestern Pond Turtle.....	11
Sonoma Tree Vole.....	11
Townsend's Big-Eared Bat.....	11
Long-Legged Myotis.....	11
Yuma Myotis.....	12
Osprey.....	12
Northern Red-Legged Frog.....	12
Foothill Yellow-Legged Frog.....	12
Cultural Resources.....	12
GENERAL LEAD AGENCY INFORMATION.....	12
Lead Agency.....	12
Staff Contact.....	12
Phone Number.....	12
Address.....	12
Surface Mining/Conditional Use Permit Number.....	12
Date Issued.....	13
Expiration Date.....	13
Financial Assurances.....	13
DESCRIPTION OF MINING ACTIVITIES.....	13
Gravel Extraction.....	13
Traffic Control.....	1544

Interim Activities .....	1615
Monitoring and Reporting Activities.....	1615
FINANCIAL ASSURANCES .....	1615
RECLAMATION ACTIVITIES .....	1615
Post-Extraction Reclamation Activities.....	1615
Final Reclamation Activities .....	1716
Post Reclamation Land Use .....	1716
Time Schedule .....	1716
Topography .....	1716
Resoiling .....	1716
Revegetation .....	1716
Impact of Reclamation on Future Mining in Area .....	1816
Impact of Reclamation on Public Health and Safety .....	1816
RECLAMATION PERFORMANCE STANDARDS .....	1817
Wildlife Habitat .....	1817
Backfilling, Regrading, Slope Stability, and Recontouring.....	1817
Revegetation .....	1817
Drainage, Diversion Structures, Waterways, and Erosion Control .....	1917
Prime Agricultural Land .....	1917
Other Agricultural Land.....	1917
Building, Structure, and Equipment Removal.....	1917
Stream Protection.....	1917
Topsoil Salvage, Maintenance and Redistribution .....	1918
Tailings and Mine Waste Management.....	1918
Closure of Surface Openings.....	2018
SOURCES CITED.....	2018
ATTACHMENT 1 – FINAL RECLAMATION SITE PLAN .....	2220

## **OPERATOR**

Humboldt County Public Works Department (HCPW)  
1106 Second Street  
Eureka, CA 95501  
Ph. #707-445-7741

## **OWNER/SURFACE RIGHTS**

Humboldt Redwood Co. LLC  
P.O. Box 712  
Scotia, CA 95565-00712

## **GENERAL MINING OPERATION INFORMATION**

### ***Mined Mineral Commodity***

Gravel

### ***Estimated Production***

3,000 cubic yards (cy) annually

### ***Total Acres to be Disturbed***

19 acres

### ***Total Acres to be Reclaimed***

19 acres

### ***Date of Start-Up***

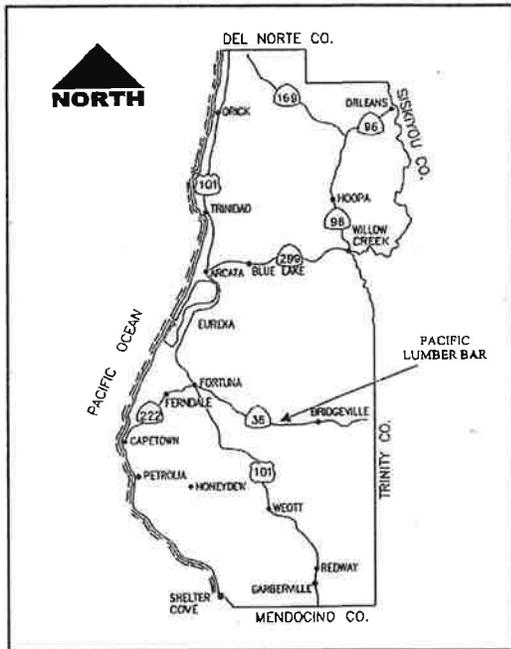
October 4, 1986

### ***Estimated Date of Closure***

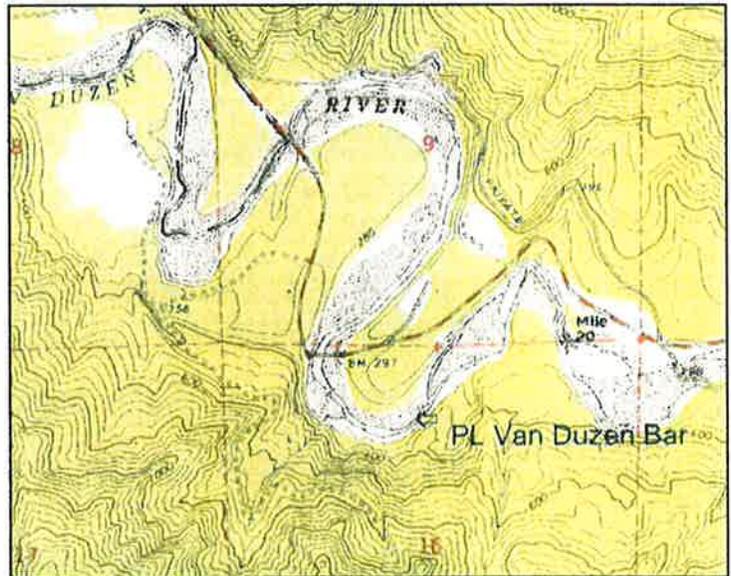
October 4, 2021 unless this permit is renewed

## **LOCATION**

The Pacific Lumber gravel bar on the Van Duzen River (a.k.a. Van Duzen bar) is 8.5 miles east of Carlotta on State Highway 36. It is located in Sections 9 and 16, Township 1 North, Range 2 East and can be seen on the USGS Redcrest 7.5' quadrangle map. The bar is immediately south of Highway 36 Bridge #4-94 (Highway post mile 13.5).



Redcrest 7.5' USGS Quadrangle



## SITE DESCRIPTION

The Van Duzen bar is horseshoe-shaped, occurring along a tight bend on the river. It is about 3,000 feet (ft) long x 400 ft wide, and is part of a series of alternating bars along a sinuous section of the Van Duzen River. Access to the bar is by a 800 ft long access/haul road which runs through second growth coastal redwood and Douglas fir forest from the gate at State Highway 36 to the bar. The hillside across the river from the bar is very high and steep, with an active landslide immediately opposite the middle of the bar. There is a highway bridge across the river near the downstream end of the bar.



Looking Downstream at Lower Portion of Bar and Highway Bridge



Looking Upstream at Bar from Highway Bridge



Active Landslide Across from Bar

## DESCRIPTION OF ENVIRONMENTAL SETTING

### ***Geology/Soils***

The geology of the project vicinity is undifferentiated rocks of the Wildcat Group. These are primarily massive marine fine-grained sandstone, siltstone, and mudstone from the Pliocene era. The rock is very friable and frequently structureless (Denton 1975).

The gravel bar itself is composed of recent alluvium consisting of unconsolidated deposits of boulders, cobbles, gravel, sand, silt, and clay currently being deposited in the river channel. This recent alluvium is defined by the 1-2 year floodplain.

The Yager Fault is located about 1.6 miles northwest of the gravel bar (Strand 1962, Spittler 1983). This fault is an offshoot of the Little Salmon Fault. There is little information regarding seismic activity on the Yager Fault. However, the Little Salmon Fault has been the subject of some study, including fault trenching in the Fortuna area, and fault evaluation reports for the Little Salmon Fault were used to develop the Alquist-Priolo maps (Personal Communication with Jim Falls, Geologist, August 31, 2007).

There is no soil on the gravel bar, which is below ordinary high water and is inundated by the river for several months each year. The land immediately north (adjacent) of the bar is a combination of Ferndale silt loam and Carlotta gravelly loam. The Ferndale silt loam (Fe2), which is found on Van Duzen River floodplains, is well suited for agriculture, with a Storie Index of 100. It supports pasture, the production of high quality livestock feed, and timber. The Carlotta gravelly loam (Ca6) is an alluvial soil that occurs on low river terraces. It has a Storie Index of 51 and while it supports some pasture, is primarily used for timber production (McLaughlin et. al. 1965). Both soils in the vicinity of the Van Duzen bar have been designated prime agriculture soils (Humboldt County 2009).

### **Hydrology**

Records from USGS river gauge #11478500, located approximately 4.5 miles above the gravel bar (Van Duzen River mile 24) show mean discharges of 18.6 cubic feet per second (csf, month of September) to 2,251 cfs (month of January), based on data from 1951 through 2005. Flood events have produced flows as high as 48,700 cfs (December 22, 1964) (USGS 2007).

The unstable geography of the basin, along with human activities and several significant flood events combined to produce significant gravel contribution to the river channel. The mean bed elevation increased in response to the 1964-65 flood event by approximately 12 ft in the area of Pepperwood Falls, approximately seven miles above the Van Duzen bar, and 9.5 ft at USGS river gauge #11478500 (4.5 miles above the bar, Berg 2002). In general, mean bed elevation in the Lower Van Duzen River increased in response to the 1964-65 flood, and increased to even higher elevations following the floods of the 1970s. According to Klein (1998), mean bed elevations generally lowered through the 1980s up to 1998. However, sediment transport is storm-dependent by nature, and data for other storms indicate that sediment is largely moved by significant and episodic flows (Resource Design Technology Inc., 1999).

Starting in 1996, with the establishment of permanent monitoring cross sections on the Van Duzen bar, the gravel bar and river bed were surveyed annually through 2005, producing an additional eight years of cross section and thalweg elevation data. Review of this data indicates a net loss of ~28,000 cy (average -3,457 cy/year) in the gravel bar reach.

Table 1 – Gravel Volume at Pacific Lumber Bar

YEAR	VOLUME CHANGE (cy)
1996	-----
1997	-----
1998	-25,266
1999	-9,429

2000	-590
2001	-3,158
2002	2,373
2003	3,767
2004	11,850
2005	-7,200
2006	-----
Net Volume Change	-27,653

### **Water Quality**

The Van Duzen River was listed on The California Clean Water Act Section 303(d) list in 1992 for water quality limited by the impacts of excessive sedimentation. In 1999, the Total Maximum Daily Load for Sediment for the Van Duzen River and Yager Creek was finalized (USEPA 1999).

Regular water sampling and testing takes place at various locations along the Van Duzen River. Friends of the Van Duzen River has established monitoring locations on several tributaries and on the mainstem. Grab samples are taken from November through April, and are analyzed for turbidity and suspended sediment concentration. In 2001 and 2002, samples from the mainstem 11 miles downstream of the gravel bar had turbidity values over 25 NTU 63% and 69% of the total days sampled, with a maximum recorded sample of 1000 NTU in 2002. While turbidity levels are related to flow volumes, turbidity values were high enough to impair salmonid life cycles, even when flows were lower (Harkins 2004).

### **Vegetation**

The California Natural Diversity Database (CNDDDB) contains records for five rare or sensitive plant species on the area covered by the Redcrest USGS 7.5' quadrangle. Of these, the project area or vicinity contains habitat for three. The California Native Plant Society has ranked these plants as List 2.2: plants that are rare in California but common elsewhere, and are threatened to a "moderate degree" in California ([www.cnps.org/rareplants/ranking.php](http://www.cnps.org/rareplants/ranking.php) 2007).

### **Running Pine**

Running pine (*Lycopodium clavatum*) is found in north coast coniferous forests, in mesic sites with partial shade and light. CNDDDB contains records of running pine approximately one mile southwest of the project area. The gravel bar does not contain habitat for running pine. However the access road and project vicinity contain habitat.

### **Howell's montia**

Howell's montia (*Montia howellii*) is found in north coast coniferous forest, in vernal wet sites, often on compacted soil. CNDDDB contains records of Howell's montia 0.4 miles east of the project area. The gravel bar does not contain habitat for Howell's montia. There is habitat along the access road and in the project vicinity.

## Seacoast Ragwort

Seacoast ragwort (*Packera bolanderi* var. *bolanderi*) is found in north coast coniferous forests, as well as coastal scrub habitat. CNDDDB contains records of Seacoast ragwort approximately 1 mile north of the project area. These records indicate the plant was found on steep slopes and along cliff faces. There is habitat for seacoast ragwort in the project vicinity.

## Wildlife

The following species of wildlife are listed by the US Fish & Wildlife Service (USFWS) as threatened or are candidates for listing for the Redcrest 7.5' USGS Quadrangle as of August 2007.

Table 2 – USFWS Listed Species (Redcrest 7.5' USGS Quadrangle)

SCIENTIFIC NAME	COMMON NAME	STATUS	CRITICAL HABITAT
Fish			
<i>Oncorhynchus kisutch</i>	SONCC coho salmon	Threatened (1997)	Yes (1999)
<i>Oncorhynchus mykiss</i>	No. CA steelhead	Threatened (2000)	Yes (2005)
<i>Oncorhynchus tshawytscha</i>	CA coastal chinook salmon	Threatened (1999)	Yes (2005)
Birds			
<i>Brachyramphus marmoratus</i>	marbled murrelet	Threatened (1992)	Yes (1996). Revision Proposed (2006)
<i>Coccyzus americanus</i>	western yellow-billed cuckoo	Candidate	No
<i>Strix occidentalis caurina</i>	northern spotted owl	Threatened (1990)	Yes (1992)
Mammals			
<i>Martes pennanti pacifica</i>	Pacific fisher	Candidate	No

## Western Yellow-Billed Cuckoo

Western yellow-billed cuckoos breed in dense willow and cottonwood stands on river floodplains (USFWS 2007). The project area does not contain habitat for western yellow-billed cuckoos. There is habitat for cuckoos in the project vicinity.

## Pacific Fisher

Pacific fishers inhabit relatively undisturbed late-successional forest, nesting in rotting logs or tree cavities, and avoiding large open areas (Pacific Biodiversity Institute 2007). The project area does not contain habitat for Pacific fisher. There is habitat for fishers in the project vicinity.

## **Coho, Chinook, and Steelhead Habitat in the Van Duzen River**

Coho salmon, chinook salmon, and steelhead trout are known to inhabit the Van Duzen River. The river provides habitat for salmonids up to river mile 47, where Eaton Rough Falls is a barrier to upstream migration. In general, salmonid habitat in the river is degraded due to low holding pool frequency, high water temperatures (especially in the autumn), and subsurface flows as a result of excessive sediment. The habitat quality has been degraded by both natural events (especially the 1964-65 flood) and anthropogenic events (especially timber harvest, road construction, and grazing), both of which have contributed to the high sediment input. Limiting factors include loss of pools and reduction of holding and rearing habitat. Fish stranding has been observed, especially at the confluence of the Van Duzen and Eel Rivers (Berg et. al. 2002).

The mainstem of the Van Duzen River is a migration corridor for salmonids. In addition, rearing habitat for juvenile steelhead can be found in the form of pockets of refugia, especially temperature-stratified pools (Personal Communication with Steve Cannata, Biologist, August 8, 2007).

Fish habitat mapping was performed on the Van Duzen River along the gravel bar reach by Dennis Halligan (biologist, Natural Resource Management Corporation) in 2003. Water depth at riffle crests and the deepest parts of pools were measured, and the locations marked on an aerial photograph of the bar. Water depth varied from 0.5 ft to 8.0 ft. Six pools and eight riffles were observed, with runs interspersed throughout the reach. Evidence of old redds was also observed. It is assumed that the gravel bar reach supports adult and juvenile salmonid migration, and may provide juvenile salmonid rearing habitat (especially steelhead) in the pools.

## **Northern Spotted Owl**

Northern spotted owls prefer old-growth or mixed-age stands of mature and old-growth trees. Superior habitat attributes include a multilayered, multispecies canopy dominated by large (>30-inch diameter at breast height) conifer overstory with an understory of shade-tolerant conifers or hardwoods; moderate to high (60-80%) canopy closure; substantial decadence in the form of large live conifers with deformities (cavities, broken tops, mistletoe infection); numerous large snags; a large accumulation of logs and woody debris on the forest floor; and a canopy open enough to allow owls to fly within and beneath. (Thomas 1990).

Owls nest in large live trees with broken tops or cavities. In northern California, owls roost in areas with moderate to high canopy closure (60-80%), multi-layered with multiple tree species. Foraging activities can take place in a wider array of forest types, including more open forests. While owls forage in dense forests, they also forage along the edges of dense forests and in more open forests for different prey (USFWS 2004). Nesting season is from February 1 through July 31 (USFWS 1998).

The project area does not contain habitat for northern spotted owls. However, northern spotted owls are known to inhabit the project vicinity. The CNDDDB Biogeographic Information System (BIOS) contains seven records within 1.32 miles of the Highway 36 bridge (downstream end of the gravel bar).

### **Marbled Murrelet**

Marbled murrelets are long-lived seabirds that spend most of their life in the marine environment, but fly inland to nest. Courtship, foraging, loafing, molting, and preening occur in near-shore marine waters. Nesting generally occurs in old-growth forests, characterized by large trees (typically Douglas fir and coastal redwood), multiple canopy layers, and moderate to high canopy closure (USFWS 2007). Nesting habitat is located close enough to the marine environment for the birds to fly to and from the nest site. Nesting season is March 24 through September 15 (USFWS 1998).

The project area does not contain habitat for marbled murrelets. However, marbled murrelets are known to inhabit the project vicinity. The CNDDDB BIOS contains six records for murrelets within 0.79 miles of the bar.

Review of occurrences of rare and sensitive wildlife species recorded in CNDDDB (August 2007) for the Redcrest 7.5' USGS quadrangle revealed a total of nine species of birds, mammals, and amphibians, none of which have recorded occurrences in the project area. The project area and/or vicinity contain habitat for all nine species.

### **Cooper's Hawk**

Cooper's hawk (*Accipiter cooperii*) inhabits woodlands, chiefly open, interrupted, or marginal. They nest mainly in riparian areas, in canyon bottoms and on river floodplains. The project area and vicinity contain habitat for Cooper's hawk.

### **Northwestern Pond Turtle**

Northwestern pond turtle (*Acinemys marmorata marmorata*) inhabits areas with permanent or nearly permanent water, with basking sites. It has been found on the Van Duzen River, in Van Duzen County Park (1.2 miles from the project area). The project area and vicinity contains habitat for northwestern pond turtle.

### **Sonoma Tree Vole**

Sonoma tree vole (*Arborimus pomo*) inhabits the north coast fog belt in Douglas fir, redwood, and mountain hardwood-conifer forests, and feeds almost exclusively on Douglas fir needles. It has been found southeast of the project area, approximately 1 mile southeast of where Highway 36 crosses Grizzly Creek. The project area (gravel bar access road) and vicinity contain habitat for Sonoma tree vole.

### **Townsend's Big-Eared Bat**

Townsend's big-eared bat (*Corynorhinus townsendii*) roosts in the open, hanging from walls and ceilings, but has been found along Grizzly Creek, in the vicinity of Grizzly Creek and the Van Duzen River (Grizzly Creek Redwoods State Park), in habitat dominated by redwood and Douglas fir. The project vicinity may contain habitat for Townsend's big-eared bat, especially the Highway 36 bridge.

### **Long-Legged Myotis**

Long-legged myotis (*Myotis volans*), a type of bat, is found in woodland and forest habitats, where it roosts in trees during the day, and caves/mines at night. It has been observed adjacent to Grizzly Creek State Park, along Grizzly Creek 0.25 miles upstream of the Van Duzen River. The project area and vicinity contains habitat for Long-legged myotis.

### **Yuma Myotis**

Yuma myotis (*Myotis yumanensis*) is found in open forests and woodlands with sources of water over which to feed. It has been observed along Grizzly Creek, 0.25 miles upstream of the Van Duzen River in habitat dominated by redwood and Douglas fir. The project area and vicinity contain habitat for Yuma myotis.

### **Osprey**

Osprey (*Pandion haliaetus*) inhabits areas with fresh water lakes and larger streams/rivers. It nests in tree-tops near good, fish-producing bodies of water. Osprey have been found in the vicinity of the PL Van Duzen gravel bar, and the project area and vicinity contains habitat for osprey.

### **Northern Red-Legged Frog**

Northern red-legged frog (*Rana aurora aurora*) inhabits humid forests, woodlands, grasslands, and streamsides, near dense riparian cover. It is usually near permanent water in damp woods and meadows. The project area and vicinity contain habitat for northern red-legged frog.

### **Foothill Yellow-Legged Frog**

Foothill yellow-legged frogs (*Rana boylei*) inhabit areas that are partly shaded shallow streams and riffles with rocky substrate. The project area and vicinity contain habitat for foothill yellow-legged frogs.

### **Cultural Resources**

Based on records held by the HCPW, Natural Resources Division, no archaeological or historical resources are known to exist within the project area.

## **GENERAL LEAD AGENCY INFORMATION**

### **Lead Agency**

Humboldt County Community Development Services Department, Planning Division

### **Staff Contact**

Anita Punla, Senior Planner

### **Phone Number**

(707)445-7541

### **Address**

3015 H Street  
Eureka, CA 95501

### **Surface Mining/Conditional Use Permit Number**

SMR-03-86X/CUP-37-86X

## **Date Issued**

Pending

## **Expiration Date**

Pending

## **Financial Assurances**

Approved June 2, 2009 (Humboldt County Board of Supervisors), updated annually

## **DESCRIPTION OF MINING ACTIVITIES**

HCPW plans to extract up to 3,000 cubic yards (cy) of gravel as frequently as annually over a period of 12 years.

Gravel extraction on the Van Duzen bar requires permit coverage from the following a number of environmental regulatory agencies:

- Humboldt County Planning Division
- U.S. Army Corps of Engineers
- California Department of Fish & Game
- Regional Water Quality Control Board.

In addition, due to the presence of wildlife federally listed as threatened, the National Marine Fisheries Service has written a biological opinion containing terms and conditions for gravel extraction on the Van Duzen bar.

All proposed actions will conform to and comply with the requirements and conditions of all issued permits and biological opinions.

## **Gravel Extraction**

Traditional skimming is the preferred extraction method for this site, based on the topography and size of the bar. Other extraction methods that may be used for the site include narrow skim, trenching, horseshoe skim, alcove, and wetland pit methods. The volume, location and extraction method will be determined using the recommendations made by the County of Humboldt Extraction Review Team (CHERT) and the capabilities of the equipment used.

CHERT is an independent team of objective experts in the fields of geology, hydrology/river geomorphology, and fisheries biology. CHERT assists gravel operators in extraction design, reviews proposed designs, and makes recommendations to bring designs into conformance with environmental permit conditions and requirements. Environmental permitting agencies respect CHERT recommendations and base their approvals of extraction activities based in part on them.

In the spring, CHERT, along with other regulatory agencies (typically COE, DFG, and NMFS representatives) will visit the site with HCPW staff to evaluate the availability of material, best location for an extraction, volume to be extracted, and type of extraction to perform. It is during the spring site visit that the basics of the extraction such as extraction method, location, size, and logistics are discussed. By the end of the visit a

basic design has been agreed upon, including peripherals like on-bar haul roads, temporary stockpile locations, vertical and horizontal setbacks from edge of water and environmentally sensitive areas.

Following the CHERT site visit, a pre-extraction report will be prepared for CHERT and other participating regulatory agencies. The established monitoring cross sections are surveyed. Pre-extraction cross-sections will be are also surveyed and both sets of cross sections are superimposed on an aerial photograph of the site. A discussion of the proposed extraction methodology will be included in the report, along with a work plan for the proposed action. Following are the required contents of the pre-extraction report:

- Monitoring Cross Sections
- Extraction Cross Sections
- Volume Calculations
- Potential Volume Limitations
- Extraction Surface Area
- Extraction Techniques
- Minimum Head of Bar Buffer
- Extraction Floor Elevation Limitations
- Roads and Temporary Channel Crossings
- Woody Debris, Vegetation and Wetlands
- Structure Setbacks

The report is submitted to CHERT first, adjustments made based on CHERT recommendations, and final CHERT approval obtained. The report with CHERT approval documentation is then forwarded to other regulatory agencies for final approval from all.

Upon approval of the pre-extraction report, and prior to extraction, survey cut stakes will be set throughout the extraction area to guide equipment and set boundaries for the operation.

The haul road to the extraction site will be the existing gravel bar access/haul road on the north side of the bar, and the shortest route on the bar from the access/haul road to the extraction area.



Access/Haul Road to Gravel Bar

Equipment used for the extraction will consist of a bulldozer, front-end loader and dump trucks. The bar will be accessed via the designated haul road. Working within the pre-set cut stakes, the bulldozer will remove gravel from the area and create temporary piles on the bar. The front-end loader will load the piled gravel into dump trucks for transport to off-site stockpile locations for processing.

Gravel extraction activities will be conducted between September 16 and November 1 to avoid the northern spotted owl and marbled murrelet nesting periods, and complete the work before winter rains begin. It will take two to three weeks to complete each extraction.

Dust control measures will consist of watering the access road, haul road, and extraction area(s) as needed with a water truck and an offsite water source.

Following completion of the extraction, post-extraction cross-sections will be surveyed. After surveying is completed, the extraction area will be reclaimed according to permit requirements and CHERT recommendations. This includes grading the extraction area to drain freely and filling in depressions. Temporary stockpiles will be removed from the bar. Haul roads on the bar will be scarified to reduce compaction. If any leaks or spills have occurred on the bar, the contaminated material will be removed and disposed of at an approved disposal facility.

### ***Traffic Control***

Traffic control will consist of placing warning signs along Highway 36 on both sides of the gravel bar access road. It will not be necessary to detour traffic, or restrict vehicles to one lane. Minor traffic delays may occur as highway vehicles slow down when they encounter trucks entering or exiting the highway from the bar access road. Delays will be temporary, ending when extraction and reclamation activities are completed and trucks/equipment leave the area.

### ***Interim Activities***

After each extraction is completed, before November 1, the bar will be reclaimed and all equipment removed. Monitoring cross-sections will continue to be surveyed regularly.

### ***Monitoring and Reporting Activities***

Monitoring consists of surveying the pre-established monitoring cross sections as required by the permitting agencies, with results submitted to the Corps of Engineers and NMFS. The gravel bar is also inspected annually by Humboldt County Planning Division staff. Reporting includes annual reports submitted to the local lead agency and California Department of Conservation as required by SMARA. Following permit expiration or final closure of the site, no subsequent monitoring/reporting will be performed.

## **FINANCIAL ASSURANCES**

Financial assurance cost estimates for 2009 are outlined in Table 3, below. Financial assurances are updated annually.

Table 3 - Financial Assurances 2009

<b>ACTIVITY</b>	<b>COST (\$)</b>
<i>Direct Costs</i>	
Primary Reclamation Activities (59.7%) (grading bar smooth)	410.41
Monitoring Costs (30.3%) (surveyed cross sections, 1 year)	208.30
<i>Indirect Costs</i>	
Contingencies (10%)	68.74
Lead Agency Administration Cost	500.00
<i>Total Estimated Cost</i>	<b>\$1,187.45</b>

## **RECLAMATION ACTIVITIES**

### ***Post-Extraction Reclamation Activities***

Reclamation of the gravel bar is ongoing and is completed at the end of each extraction event. Once extraction activities are complete, the following reclamation activities commence:

- Any incidental holes or depressions created during extraction activities are graded smooth to facilitate free drainage and prevent fish stranding.
- Temporary stockpiles are removed from the bar.
- Haul roads on the bar are scarified to reduce compaction.
- Post-extraction cross sections are surveyed and a post-extraction report filed with CHERT and regulatory agencies.

## **Final Reclamation Activities**

Final reclamation activities will commence when mining on the Van Duzen bar by HCPW under this Reclamation Plan has ceased. In addition to the post-extraction reclamation activities, and with property owner concurrence, the gravel bar access road will be decommissioned by ripping-scarifying to reduce compaction. The road alignment will then be seeded with fast growing native grasses and mulched for erosion control. Because the road alignment is only 10-15 ft wide and surrounded by forest, it is anticipated that local tree species (redwood, Douglas fir) will naturally invade the area.

## **Post Reclamation Land Use**

The land use designation of the project area (assessor parcel #209-201-10) is timber production, and the land is zoned timber production zone. The extraction area is river gravel bar below ordinary high water, and naturally contains no vegetation appropriate for timber production. The 800 ft long x 10 ft wide gravel bar access road is surrounded by redwood and Douglas fir trees. The road maywill be decommissioned and the alignment used for timber production when final reclamation is complete, ~~or continue to be used by the property owner for gravel bar access.~~ There will be no mining-associated activities by HCPW on the remaining portion of the parcel.

## **Time Schedule**

Reclamation will be completed immediately after each extraction and associated post-extraction surveying, and before winter rains begin. Final reclamation will be completed immediately after the final extraction and associated surveying. Reclamation after each extraction (and final reclamation) will take approximately 1-2 days to complete.

## **Topography**

The gravel bar will be graded smooth, removing all depressions within and outside the extraction area. The access road will be decompacted (ripped) along its length to reduce compaction.

## **Resoiling**

The extraction area is gravel bar below ordinary high water and does not contain topsoil. Resoiling of the site is not part of the reclamation activities. As there is no evidence of deep grading on the access road that would have resulted in the removal of all topsoil, no topsoiling is planned for the access road alignment.

## **Revegetation**

There is no vegetation in the extraction area and no revegetation will be done there. Other than seeding the gravel bar access road for erosion control, revegetation is not part of the reclamation activities.

## **Gravel Bar Access Road**

Revegetation of the access road alignment will consist of seeding with a mix of native grasses commonly used for erosion control. The seed mix will likely contain Cucamonga brome (Bromus carinatus "Cucamonga"), three weeks fescue (Vulpia microstachys), and tomcat clover (Trifolium wildenovii), or similar species, and will be applied at a rate of 45 pounds/acre. Seed application will be done shortly after the road alignment is ripped in late autumn. The seeded area will be mulched with weed-free straw. Revegetation

success will be based on aerial coverage of 80% one year after planting and 97% two years after planting. Subsequent planting/mulching will be done as necessary to facilitate meeting these goals. As the area surrounding the road is heavily forested, it is anticipated that shrub and tree species will naturally encroach on the road alignment. Shrubs and trees will be included in the coverage calculations.

### **Post-Revegetation Monitoring**

Post-revegetation monitoring will consist of a three-year Monitoring Plan developed to determine the success of revegetation on the road alignment. Revegetation success will be determined by assessing percent of aerial cover in sample plots located on the road alignment. The number, size, and location of the plots will be determined by a qualified botanist, who will also perform the cover assessments. In addition, photographs will be taken at established photo points to document revegetation status.

### **Invasive Weed Control**

Any invasive weeds identified on and adjacent to the road during decommissioning and revegetation will be removed. Invasive weed status will be monitored during post-reclamation monitoring. Invasives that are identified during monitoring will be removed.

### ***Impact of Reclamation on Future Mining in Area***

Reclamation of the gravel bar will not affect the possibility of future mining at this site. Continued landsliding upstream of the Van Duzen bar will continue to contribute gravel material to the site.

### ***Impact of Reclamation on Public Health and Safety***

The final topography of the site once reclamation is completed will not pose a hazard to the public. All equipment will be removed from the site. Any contaminated material will have been removed, therefore there will be no risk of exposure to hazardous materials. The site is privately owned. Public access will be allowed or restricted at the property owner's discretion.

## **RECLAMATION PERFORMANCE STANDARDS**

### ***Wildlife Habitat***

*Objective – Maintenance and improvement of habitat for anadromous fish.*

Extractions will be designed, with the assistance of CHERT and NMFS, to minimize impacts to fish and fish habitat. Gravel bar grading after extraction will eliminate depressions that could result in fish stranding.

### ***Backfilling, Regrading, Slope Stability, and Recontouring***

*Objective – Reduce possibility of fish stranding.*

The extraction area will be regraded to remove depressions. The gravel bar access road will be decompacted by ripping in preparation for revegetation.

### ***Revegetation***

*Objective – Re-establish vegetation consistent with seasonally inundated gravel bar.*

Re-establish vegetation on access road alignment consistent with surrounding area.

There is little to no vegetation on the gravel bar. The bar will be allowed to revegetate naturally. Revegetation of the access road will initially be for erosion control. Tree and shrub species from the surrounding area will be allowed to encroach on the alignment done at the property owner's discretion.

### ***Drainage, Diversion Structures, Waterways, and Erosion Control***

*Objective – Re-establish natural waterway of Van Duzen River, protect river from fine sediment input due to extraction activities.*

Extraction activities will be completed before the site is inundated by winter high flows. Reclamation after each extraction will remove depressions caused by extraction activities.

### ***Prime Agricultural Land***

*Objective – No loss of prime agricultural land.*

The gravel bar does not constitute prime agricultural land. The access road runs through land with designated prime agricultural soils. Decommissioning of the road will be done at the property owner's discretion.

### ***Other Agricultural Land***

*Objective – No loss of other agricultural land.*

The gravel bar does not constitute other agricultural land. The access road runs through land designated prime agricultural land. Decommissioning of the road will be done at the property owner's discretion.

### ***Building, Structure, and Equipment Removal***

*Objective – Remove all structures and equipment associated with the mining and reclamation operation.*

All equipment used in the mining and reclamation of the gravel bar will be removed from the site when reclamation is completed.

### ***Stream Protection***

*Objective – Return stream to natural condition.*

After extractions, the bar will be graded smooth, removing depressions.

### ***Topsoil Salvage, Maintenance and Redistribution***

*Objective – Resoil extraction area and access road alignment to support revegetation and post-reclamation land use.*

There is no topsoil on the gravel bar. No topsoil placement will be done on the bar. The access road will be ripped to decompact the ground. Minimal to no topsoil will be placed on the alignment as no evidence of topsoil removal is visible.

### ***Tailings and Mine Waste Management***

*Objective – Mine waste and tailings will be disposed of or reclaimed.*

Waste will consist of fine material that has sifted through the gravel excavated and temporarily stockpiled on the bar. Fines remaining after gravel is removed from the bar will be retrieved and transported to a disposal facility to be determined.

## **Closure of Surface Openings**

*Objective – Protect wildlife and the public from open wells, shafts, etc.*

There will be no drill holes, water or monitoring wells, shafts, tunnels, or other surface openings to underground workings to be abandoned or closed.

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**PERSONS CONSULTED:**

Steve Cannata, Biologist. California Department of Fish & Game. August 27, 2007.

Jim Falls, Geologist. California Geological Survey. August 31, 2007.

# **ATTACHMENT 1 – FINAL RECLAMATION SITE PLAN**



# DEPARTMENT OF CONSERVATION

*Managing California's Working Lands*

## OFFICE OF MINE RECLAMATION

801 K STREET • MS 09-06 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 323-9198 • FAX 916 / 445-6066 • TDD 916 / 324-2555 • WEB SITE [conservation.ca.gov](http://conservation.ca.gov)

April 22, 2010

**VIA EMAIL: [mryan@co.humboldt.ca.us](mailto:mryan@co.humboldt.ca.us)**  
**ORIGINAL SENT BY MAIL**

Meghan Ryan  
Community Development Services, Planning Division  
County of Humboldt  
3015 H Street  
Eureka, California 95501

Dear Ms. Ryan:

RESPONSE TO COMMENTS  
VAN DUZEN GRAVEL BAR RECLAMATION PLAN  
CA MINE ID #91-12-0061

The Department of Conservation's Office of Mine Reclamation (OMR) has received the November 9, 2009 County of Humboldt response to our comment letter of September 30, 2009. The County's response to comment letter was received by OMR on March 24, 2010 and included a revised Plan of Operation and Final Reclamation Plan.

OMR finds that our comments have been adequately addressed, and has no further comment at this time.

If you have any questions on these comments or require any assistance with other mine reclamation issues, please contact me at (916) 323-5435.

Sincerely,

James S. Pompy, Manager  
Reclamation Unit



**ATTACHMENT 5**

**Subsequent Mitigated Negative Declaration and  
Mitigated Negative Declaration adopted in 1997**

## Subsequent Mitigated Negative Declaration

**Note:** Pursuant to Section 15162 of the California Environmental Quality Act, this document is a **Subsequent Mitigated Negative Declaration**. The previous document *Mitigated Negative Declaration* is available and can be reviewed at the Humboldt County Community Development Services, Planning Division, 3015 H Street, Eureka, California.

1. **Project title:** **Humboldt County Department of Public Works – Van Duzen Bar**  
Renewal of Surface Mining/Conditional Use Permits/Approval of Reclamation Plan and Review of Financial Assurance Cost Estimate Application  
APN **209-201-10** (Carlotta area)  
Case No: CUP-37-86X/SMR-03-86X
2. **Lead agency name and address:** Humboldt County Community Development Services, 3015 H Street, Eureka, CA 95501-4484; Phone: (707) 445-7541; Fax (707) 445-7446
3. **Contact person and phone number:** Anita Punla, Senior Planner (707) 268-3727
4. **Project location:** The project is located in Humboldt County, in the Carlotta area, on the south side of State Highway 36, approximately 0.58 miles southeast from the intersection of Keller Road and State Highway 36, on the property known to be in Section 16 Township 1 North Range 2 East.
5. **Project sponsor's name and address:** Humboldt County Department of Public Works, c/o Ann Glubczynski, 1106 Second Street, Eureka CA 95501-0579.
6. **General plan designation:** Timber Production (T); Framework Plan (FRWK)
7. **Zoning:** Timberland Production Zone (TPZ).
8. **Description of project:** Renewal of Conditional Use/Surface Mining Permits, approval of Reclamation Plan and review of Financial Cost Estimates for an existing in-stream mining operation on the northern bank of the Van Duzen River located approximately two miles east of the intersection of State Highway 36 with Redwood House Road. The operation proposes the annual extraction of up to 3,000 cubic yards of river-run gravel for County road maintenance. **The operation proposes the annual extraction of up to 3,000 cubic yards of river-run gravel annually or 9,000 cubic yards once every three years for County road maintenance. The maximum extraction amount will be 45,000 cubic yards over the 15 year permit term.** The permit term will expire in October 4, 2021.

The mining operations were originally permitted in 1986 and extended in 1997 for the same volume and frequency of extraction. There has been no extraction at the site since 1997; however, permanent monitoring cross-sections were established on the bar in 1996 and annual cross sections have been surveyed since that time. The annual extraction volume, location and method will be consistent with the recommendations of CHERT and other regulatory agencies.

Equipment includes bulldozer, front-end loader, excavator and dump trucks. The bar will be accessed via the designated haul road on the north side of the bar. Gravel will be temporary stockpiled on the bar, then loaded for transport to off-site stockpile locations for processing. Gravel extraction will be intermittent and conducted between September 16<sup>th</sup> and November 1<sup>st</sup>, with each extraction period lasting approximately two to three weeks.

9. **Surrounding land uses and setting:** The gravel bar is located on the Van Duzen River between Van Duzen County Park and Grizzly Creek Redwoods State Park. The surrounding area is steep hills forested with redwoods and Douglas fir. The river is sinuous with intermittent alternating gravel bars and occasional canyon walls. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas.

10. **Other public agencies whose approval is required** (e.g. permits, financing approval, or participation agreement): Regional Water Quality Control Board, North Coast Air Quality Management District, California Department of Conservation, Office of Mine and Reclamation (Reclamation Plan and Financial Assurance Approval), California Department of Fish and Game, National Marine Fisheries Service, Army Corps of Engineers, California Department of Forestry and Fire Protection, County of Humboldt Extraction Review Team.

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Aesthetics                    | <input checked="" type="checkbox"/> Agriculture Resources              | <input checked="" type="checkbox"/> Air Quality              |
| <input checked="" type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources                            | <input checked="" type="checkbox"/> Geology / Soils          |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality          | <input type="checkbox"/> Land Use / Planning                 |
| <input checked="" type="checkbox"/> Mineral Resources             | <input checked="" type="checkbox"/> Noise                              | <input type="checkbox"/> Population / Housing                |
| <input type="checkbox"/> Public Services                          | <input checked="" type="checkbox"/> Recreation                         | <input checked="" type="checkbox"/> Transportation / Traffic |
| <input type="checkbox"/> Utilities / Service Systems              | <input checked="" type="checkbox"/> Mandatory Findings of Significance |  |

**DETERMINATION:**

On the basis of this initial evaluation:

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

Steve Wimmer for  
Signature

amended 7-17-10  
Date

Anita Punla, Senior Planner

Humboldt County Community Development Services

#### EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addresses. Identify which effects from the above checklist were within the scope of and adequately analyze in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plan, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

- a.) Reclamation Plan for Quarry
  - b.) Plan of Operations for Quarry
  - c.) Project maps and figures
- 8) This is only a suggested form, and lead agencies are free to use different formats, however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue identifies:
- a) The significant criteria or threshold, if any, used to evaluate each question; and
  - b) The mitigation measure identified, if any, to reduce the impact to less than significant.

**CHECKLIST, DISCUSSION OF CHECKLIST RESPONSES, PROPOSED MITIGATION**

1. <b>AESTHETICS</b> . Would the project:	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion: The Van Duzen River is designated Wild and Scenic in the project vicinity and project area. The gravel bar is located between the Van Duzen County Park and Grizzly Creek Redwoods State Park, and the stretch of Highway 36 between the two parks is considered scenic with the river visible along the highway and the bar visible from the Highway 36 Bridge. Mining activities on the bar will temporarily disrupt the scenic nature of the area. The project is intermittent and limited to daylight hours. Reclamation includes re-grading the bar smooth to resemble the natural gravel bar topography and removal of haul roads, stockpile areas and equipment to return the site to its natural condition.

2. <b>AGRICULTURE RESOURCES.</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: The gravel bar is located on the Van Duzen River. The surrounding area consists of heavily forested hillsides. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas. The mining operation was originally permitted in 1986. Reclamation includes re-grading the bar smooth and removal of haul roads, as required, stockpile areas and equipment to return the site to its natural condition. There is no evidence that the project will impact agricultural resources.

3. <b>AIR QUALITY.</b> Where available, the significant criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| d) Expose sensitive receptors to substantial pollutant concentrations?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Discussion: The gravel bar is located on the Van Duzen River. The mining operation was originally permitted in 1986. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas.

In 2002, the California Air Resources Board approved an Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations that applies to any operations in a geographic ultramafic rock unit. An exemption exists for sand and gravel operations if the operation processes materials from an alluvial deposit, e.g. river gravel bar. There are no known geographic ultramafic rock units in the vicinity of the PL Van Duzen Bar.

The site is located in the North Coast Air Basin which is in non-attainment for Particulate Matter smaller than 10 microns in diameter (PM10). The areas of Humboldt County that are in non-attainment for PM10 are in the urban areas along the coast, e.g. Eureka and Arcata. Air pollutants could result from the project. Emissions from extraction and processing equipment and from trucks used for transporting material off-site will not result in significant contributions to PM10 levels in the area due to the location, scale and intermittent nature of the project. Mining operations will be done infrequently and for limited duration. The applicant will obtain, as required, a "Permit to Operate" from the Northern California Air Quality Management District, which will regulate air emissions from operations. Heavy equipment is generally subject to emission standards, and exceeding those standards may constitute a "nuisance" condition, and can be mitigated by proper vehicle maintenance.

Dust from operations, i.e. processing and transport activities, would be created during the time the site is active. Dust suppression measures, e.g. periodic watering, will be utilized to control dust. Dust associated with truck traffic would be reduced due to the speed at which the trucks could travel on the access road.

Mitigation M-1:

- The project shall meet the requirements of the North Coast Unified Air Quality Management District, including consistency with the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations.
- Dust suppression measures shall be utilized to control dust.

**4. BIOLOGICAL RESOURCES.** Would the project:

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- |  |                          |                                     |                          |                                     |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: Mining operations were originally permitted in 1986. The project site is on the Van Duzen River located between the Van Duzen County Park and Grizzly Creek Redwoods State Park. Surrounding areas consist of heavily forested hillsides.

The California Natural Diversity Database contains records for one rare or sensitive plant species, *Howell's montia*. *Howell's montia* is "fairly threatened" in California, common elsewhere. It can be found in meadows, North Coast coniferous forest, vernal pools and vernal wet sites. Mining activities include removal of small, annual vegetation from the gravel bar during excavation of gravel, and cutting back trees or shrubs. A 1996 vegetation survey did not identify any sensitive plant species on the bar or along the access/haul road. Access to the bar will be limited to the existing access road. Other than minor vegetation removal and tree limbing to accommodate equipment and transports on the road, riparian disturbance will be avoided.

Several species of wildlife are listed by the US Fish & Wildlife Service as threatened or are candidates for listing for the Carlotta area. The project will modify habitat for federal listed fish species known to inhabit the Van Duzen River at or near the gravel bar. *Coho salmon*, *Chinook salmon* and *steelhead* trout are known to inhabit the Van Duzen River. In general, salmonid habitat in the river is degraded due to low holding pool frequency, high water temperatures and subsurface flows as a result of excessive sediment. Habitat quality has been degraded. The mainstem of the Van Duzen River is a migration corridor for salmonids. In addition, rearing habitat for juvenile steelhead can be found. It is assumed that the gravel bar reach supports adult and juvenile salmonid migration, and may provide juvenile salmonid rearing habitat (especially steelhead) in the pools. Extraction plans will undergo review by CHERT, Corps of Engineers, Department of Fish & Game, NMFS and other regulatory agencies, and these agencies will make recommendations on volumes and extraction designs to minimize impacts to fish and fish habitat.

The project vicinity contains habitat for northern spotted owls and marbled murrelets. Northern spotted owls prefer old-growth or mixed-age stands of mature and old-growth trees. Owls nest in large trees with broken tops or cavities. Foraging activities can take place in a wider array of forest types, including more open forests. While owls forage in dense forests, they also forage along the edges of dense forests and in more open forests for different prey. Nesting season is from February 1 through July 31. Marbled murrelets are long-lived seabirds that spend most of their lives in the marine environment, but fly inward to nest. Nesting generally occurs in old-growth forests characterized by large trees, Douglas fir and coastal redwood. Nesting season is March 24 through September 15. The project does not involve the removal of large trees and will not affect owl or murrelet habitat. The project area and vicinity contains habitat for eight species of wildlife listed in CNDDDB. An additional four species have habitat in the project vicinity. The project may temporarily affect movement of wildlife through the disturbed area, but extraction activities are intermittent and temporary, occurring during daylight hours only. The project has been limited to late summer during daylight hours to minimize impacts to wildlife.

Mitigation M-2:

1. Extraction methods, volumes and locations shall be consistent with the requirements of CHERT, DF&G, COE, RWQCB and other regulatory agencies. If a wetland pit extraction is performed, work shall be coordinated with DFG to develop a strategy to avoid fish entrapment and eradicate bullfrogs that may attempt to utilize the area.
2. The project shall employ Best Management Practices (BMP's) for Erosion and Sediment Control (ESC) and Contractor Activities (CA) as identified in the California Storm Water Best Management Practice Handbook for Construction Activity.
3. The project shall be consistent with the County's General Plan policies re: sensitive and critical habitats and

with the County's Streamside Management Area Ordinance.

4. Gravel mining activities will be restricted to summer months during daylight hours, after September 15<sup>th</sup> and before November 1<sup>st</sup>, to minimize impacts to wildlife, including the northern spotted owl and marbled murrelet.
5. Incidental and final reclamation will incorporate placement of large woody debris for specific extraction designs and habitat restoration/enhancement activities in coordination with the Department of Fish and Game.
6. Access to the bar will be limited to the existing access road. Other than minor vegetation removal and tree limbing to accommodate equipment and transports on the road, riparian disturbance will be avoided.

**5. CULTURAL RESOURCES.** Would the project:

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: The gravel bar is located on the Van Duzen River. Mining operations were originally permitted in 1986. No historical resources as defined in §15064.5 exist. The Division of Natural Resources of the Humboldt County Department of Public Works has indicated that their database contains no recorded archaeological sites within the project area. The geology at the project site is not unique to the area nor is it a paleontological resource or site. There is no evidence that the project would impact archaeological resources.

**6. GEOLOGY AND SOILS.** Would the project:

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

property?

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Discussion: The PL Bar on the Van Duzen River is located approximately 8.5 miles east of the community of Carlotta. The project area consists of rock and river wash material. The area surrounding the gravel bar has high slope instability, but the bar itself, has low slope instability. The north coast of California is one of the most seismically active regions in the United States. Humboldt County in general is at risk from strong ground-shaking. The nearest earthquake fault zone is located approximately 1.6 miles away from the gravel bar. During an earthquake, the bar is subject to amplified ground shaking. Equipment will contain all required safety features. Personnel will follow all required safety procedures. The gravel bar is relatively flat and mining activities will result in low, gentle slopes.

The project does not involve the disturbance or loss of any soil since extraction will be limited to the alluvial gravel bar. There is no topsoil on the bar, which is made up of fine to coarse gravel and cobble. Loss of gravel at the site will not be permanent as the bar is inundated and the gravel replenished during high flows in winters with normal rainfall. The amount of gravel extraction in any given year will be based on the amount of replenishment as determined by monitoring cross sections. Extraction volume and method are subject to annual review by the County, DFG, COE and other regulatory agencies. These standards have been designed to maintain channel capacity and adjacent bar morphology, reduce bank erosion, create deep-water habitat and reduce impacts to the environment.

7. HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion: The project is located on the Van Duzen River, approximately 8.5 miles east of the community of Carlotta. Mining operations were originally permitted in 1986.

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The project does not involve the handling or emissions of acutely hazardous materials, substances or waste. The project site is not located within two miles of a public airport or public use airport; there are no known private airstrips within the vicinity of the site. There are no residential communities in the area. There are no schools located within one-quarter mile of the site.

Standards of operation minimize any potential impacts from the project. The potential for contaminants is limited to operation-related activities such as equipment leaks or spills. Such contaminants from equipment shall be controlled through proper equipment operation and maintenance. Major equipment maintenance work, i.e. repairs and changing of fluids or lubricants, will be conducted off-site. Any materials contaminated by equipment leaks will be properly disposed.

The project site is located in an area subject to risk from wildland fires. The site is within a State Responsibility Area and fire jurisdiction is by Cal Fire. Extraction activity will occur at the gravel bar, away from vegetation, and heavy equipment shall be fire-safe, i.e. operating under a fire safety plan and equipped with spark arrestors. The access road shall be maintained free of vegetation during times of activity. There will be no "abandoned" equipment, structures, refuse, etc. associated with operations to remain on the reclaimed site after extraction has been discontinued.

In 2002, the California Air Resources Board approved an Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations that applies to any operations in a geographic ultramafic rock unit. An exemption exists for sand and gravel operations if the operation processes materials from an alluvial deposit, e.g. river gravel bar. There are no known geographic ultramafic rock units in the vicinity of the PL Van Duzen Bar.

Mitigation M-3:

1. The project shall meet the requirements of the North Coast Unified Air Quality Management District, including consistency with the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations.
2. The project shall be consistent with the standards in the Mining and Reclamation Plan, as well as standards and requirements of other regulatory agencies.

**8. HYDROLOGY AND WATER QUALITY.** Would the project:

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

substantial additional sources of polluted runoff?

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| f) Otherwise substantially degrade water quality?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Discussion:** The Van Duzen River is water quality impaired due to excessive sedimentation. The project has the potential to increase sediment input to the river. Gravel extraction includes excavation that will disturb the bar surface, removing the armor layer and exposing gravel with a finer sediment component which can then enter the river when higher flow levels inundate the bar. Extraction will also slightly alter gravel bar drainage patterns, and extraction will result in a slightly different bar surface configuration which will produce minor changes in the river course. This drainage change is temporary as each excavation will fill in when winter flows become great enough to mobilize the remaining gravel on the bar. The project gravel bar is downstream of documented landslide areas that are known to contribute large quantities of sediment to the river. Highway 36 Bridge #4-94 is located at the downstream end of the project, and the Department of Transportation has expressed concern regarding the potential for scour and erosion around bridge piers and abutments. To minimize impacts to the bridge, a setback of minimum 500 feet will be required.

Extraction methods and volumes are reviewed annually by the County of Humboldt Extraction Review Team, the Department of Fish and Game and other regulatory agencies. Standards have been designed to maintain channel capacity and adjacent bar morphology, reduce bank erosion, create deep-water habitat and reduce impacts to the environment. Regular monitoring through the use of pre-extraction, post-extraction and permanent monitoring cross sections provide information on stream bed changes in relation to extraction activities, and future extraction plans will be designed and approved based on the monitoring data. Consistency with the Porter-Cologne Water Quality Control Act, Water Code section 13000 et seq., and the Federal Clean Water Act 301 et seq., the Regional Water Quality Control Board or the State Water Resources Control Board and requirements of permitting agencies will ensure that water quality is not degraded.

The project will not draw groundwater and will not cause any change in current groundwater recharge processes. No withdrawals are proposed. No housing or structures are being proposed. No levee or dam construction is associated with the project. The site is not located within a tsunami hazard zone. The site is not a part of an existing or planned stormwater drainage system.

**Mitigation M-4:**

- Operations shall be consistent with the standards and requirements of CHERT, DF&G, COE, RWQCB and other regulatory agencies.
- The project shall employ Best Management Practices (BMP's) for Erosion and Sediment Control (ESC) and Contractor Activities (CA) as identified in the California Storm Water Best Management Practice Handbook for Construction Activity.
- Operations shall maintain a minimum 500 foot setback from the bridge unless a smaller setback is approved by the North Coast Railroad Authority and CalTrans.

**9. LAND USE AND PLANNING.** Would the project:

- |   | Potentially Significant  | Potentially Significant Unless Mitigation Incorp. | Less Than Significant Impact | No Impact                           |
|---|--------------------------|---|------------------------------|-------------------------------------|
| a) Physically divide an established community?  | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Discussion: The PL Bar is located on the Van Duzen River approximately 8.5 miles east of the community of Carlotta. Mining operations were originally permitted in 1986. The site is planned and zoned for timber production. Surrounding areas consist of heavily forested hillsides. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas. Reclamation includes re-grading the bar smooth and removal of haul roads, as required, stockpile areas and equipment to return the site to its natural condition. There is no evidence that the project would result in land use and planning impacts.

**10. MINERAL RESOURCES.** Would the project:

- |   | Potentially Significant  | Potentially Significant Unless Mitigation Incorp. | Less Than Significant Impact | No Impact                           |
|---|--------------------------|---|------------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

Discussion: Operations were originally permitted in 1986. The project proposes extraction and processing of up to 3,000 cubic yards of gravel as frequently as annually. Sand and gravel are a needed resource for local residential, commercial, industrial and public facility development. The project allows for the continued, sustainable utilization of an important mineral resource. The mineral resources available on the site are not unique to the area and are subject to annual replenishment during high flows in winters with normal rainfall. The amount of gravel extraction in any given year will be based on the amount of replenishment as determined by monitoring cross sections. Extraction volume and method are subject to annual review by the CHERT, DFG and other regulatory agencies. These standards have been designed to maintain channel capacity and adjacent bar morphology, reduce bank erosion, create deep-water habitat and reduce impacts to the environment. The project will have no effect on future mining opportunities in this area. There is no evidence that the project would impact mineral resources.

**11. NOISE.** Would the project result in:

- |   | Potentially Significant  | Potentially Significant Unless Mitigation Incorp. | Less Than Significant Impact        | No Impact                           |
|---|--------------------------|---|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?   | <input type="checkbox"/> | <input type="checkbox"/>                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/> | <input type="checkbox"/>                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/>                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?  | <input type="checkbox"/> | <input type="checkbox"/>                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Discussion: The site is located approximately 8.5 miles east of Carlotta. Mining operations were originally permitted in 1986. Surrounding areas consist of heavily forested hillsides. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas. Mining activities that will produce noise include extraction, processing, loading and transporting rock material. Bulldozers, loaders, trucks, and other similar type equipment will be used to extract and transport the material. Workers will take safety measures during blasting to minimize effects to workers.

Ambient noise levels have historically been associated with timber harvesting and quarry activities. The mine will operate on an intermittent basis with the bulk of activity to occur in the drier months. There will be long periods of time when no sounds will be generated. Increased noise levels occur only during periods of operation. When the mining operation occurs, the period of activity will usually be three to four weeks. Operations including extraction and transport may impact wildlife behavior. However, disruption to wildlife will be temporary and short term. Operations are restricted to summer daylight hours, specifically after September 15<sup>th</sup> and before November 1<sup>st</sup>, to minimize impact to wildlife and outside the nesting season for northern spotted owls and marbled murrelets.

The proposed project is not located within an airport land use plan or within two miles of a public airport or private airstrip.

Mitigation M-5:

1. Gravel mining activities will be restricted to summer months during daylight hours, after September 15<sup>th</sup> and before November 1<sup>st</sup>, to minimize impacts to wildlife, including the northern spotted owl and marbled murrelet.

**12. POPULATION AND HOUSING.** Would the project:

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: The project will not produce any significant growth inducing impacts. Aggregate extraction is normally driven by growth, not vice versa. Growth inducing impacts are generally caused by projects that have a direct or indirect affect on economic or population growth, or when the project taxes community service facilities which require upgrades beyond the existing remaining capacity. No services or utilities are required to be extended to the site. The project will employ only a few people for a limited amount of time. The project will not displace existing housing or people. There are no residential communities in the area. There is no evidence that the project would impact population and housing.

**13. PUBLIC SERVICES.**

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- v. Other public facilities?

Discussion: The site is located approximately 8.5 miles east of the community of Carlotta. Mining operations were originally permitted in 1986. Surrounding areas consist of heavily forested hillsides. There are no residential communities in the area. No additional facilities or extension of existing facilities or increased demand for services are required for the project.

**14. RECREATION.**

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: The site is located approximately 8.5 miles east of the community of Carlotta. Mining operations were originally permitted in 1986. Surrounding areas consist of heavily forested hillsides. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas. No recreational facilities or development requiring the need for recreational facilities is proposed. There is no evidence that the project results in impacts associated with recreation.

**15. TRANSPORTATION/TRAFFIC.** Would the project:

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: The site is located approximately 8.5 miles east of the community of Carlotta. Mining operations were originally permitted in 1986. Surrounding areas consist of heavily forested hillsides. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas. The site is accessed via the existing private road off State Highway 36. The roads have been used intermittently for quarry operations and timber harvesting activities. Truck traffic generated by the project will vary with seasonal and market conditions. There will be long periods with little or no project-generated traffic. Traffic increase from the operations will constitute a minimal increase of 3% of the average daily traffic levels.

The project will not affect any other emergency access route. Ample parking and room for equipment staging currently exists at the site. There is no evidence that the project will result in impacts to policies, plans or

programs supporting alternative transportation.

**16. UTILITIES AND SERVICE SYSTEMS.** Would the project:

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: The site is located approximately 8.5 miles east of the community of Carlotta. Mining operations were originally permitted in 1986. Surrounding areas consist of heavily forested hillsides. Land uses in the area consist of timber production and public recreation, interspersed with small residential areas. Portable chemical toilets will be provided, as required, and maintained by a licensed pumper. The use and maintenance of the portable sanitary facility will comply with all state and county regulations. No wastewater is produced. No solid waste will be generated. There is no evidence that the project will adversely impact utilities and service systems.

**17): Mandatory Findings of Significance**

Findings: The proposal will not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory; potential to achieve short-term, to the disadvantage of long-term, environmental goals; impacts which are individually limited, but cumulatively considerable. ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects); or environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

Discussion:

**17. MANDATORY FINDINGS OF SIGNIFICANCE**

	Potentially Significant	Potentially Significant Unless Mitigation Incorp.	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of major periods of California history/prehistory?

Discussion: The project proposes continuation of operations originally permitted in 1986. Ground-disturbing activities occur on the gravel bars, subject to alluvial processes during high flows. The project, including extraction volume, location and method, is subject to regulatory oversight by numerous agencies, including County of Humboldt Extraction Review Team, DFG and COE. Monitoring and adaptive management are part of the project. Potential project impacts have been mitigated during the planning stage of the proposal. See further discussion under Section 4. *Biological Resources*.

Important examples of California history or prehistory do not exist on the site.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Discussion: The surface mining activities and final reclamation of the site have no collective impact greater than any individual component. The proposed development does not include any short-term impacts that are to the detriment of long-term environmental goals. Potential project impacts have been mitigated during the planning stage of the proposal. The project is designed and mitigated with these long-term goals in mind. The project, including extraction volume, location and method, is subject to regulatory oversight by numerous agencies, including County of Humboldt Extraction Review Team, DFG and COE. Monitoring and adaptive management are part of the project. The ultimate reclamation of the site, to return the site to its natural condition, will be beneficial in all cases when viewed in a context with past, present, and future projects. The proposed project is consistent with the general or community plan developed for the area.

The project has been reviewed in the context of all other recent discretionary approvals in the surrounding area, in the context of conformance with the applicable general plan or community plan policies and standards, and in the context of future developments which are known at the time of project review. As part of this review, the project has been determined to be consistent with the long term goals of the general plan by virtue of consistency with the provisions of the general plan designation and zoning. The project represents conditionally permitted development in the context of the general and/or community plans.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Discussion: The proposed project will not cause cumulative adverse effects to human beings, either directly or indirectly. The proposed project is not expected to cause substantial adverse effects on human beings. The project will not generate uses which would be expected to cause adverse effects on people.

## 18. DISCUSSION OF MITIGATION MEASURES, MONITORING, AND REPORTING PROGRAM

The Department found that the project could result in potentially significant adverse impacts unless mitigation measures are required. A list of Mitigation that addresses and mitigates potentially significant adverse impacts to a level of non-significance follows. Additional details regarding mitigation for reclamation of the site can be found in the Reclamation Plan.

### Mitigation M-1:

1. The project shall meet the requirements of the North Coast Unified Air Quality Management District, including consistency with the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations.
2. Dust suppression measures shall be utilized to control dust.

Mitigation M-2:

1. Extraction methods, volumes and locations shall be consistent with the requirements of CHERT, DF&G, COE, RWQCB and other regulatory agencies. If a wetland pit extraction is performed, work shall be coordinated with DFG to develop a strategy to avoid fish entrapment and eradicate bullfrogs that may attempt to utilize the area.
2. The project shall employ Best Management Practices (BMP's) for Erosion and Sediment Control (ESC) and Contractor Activities (CA) as identified in the California Storm Water Best Management Practice Handbook for Construction Activity.
3. The project shall be consistent with the County's General Plan policies re: sensitive and critical habitats and with the County's Streamside Management Area Ordinance.
4. Gravel mining activities will be restricted to summer months during daylight hours, after September 15<sup>th</sup> and before November 1<sup>st</sup>, to minimize impacts to wildlife, including the northern spotted owl and marbled murrelet.
5. Incidental and final reclamation will incorporate placement of large woody debris for specific extraction designs and habitat restoration/enhancement activities in coordination with the Department of Fish and Game.
6. Access to the bar will be limited to the existing access road. Other than minor vegetation removal and tree limbing to accommodate equipment and transports on the road, riparian disturbance will be avoided.

Mitigation M-3:

1. The project shall meet the requirements of the North Coast Unified Air Quality Management District, including consistency with the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations.
2. The project shall be consistent with the standards in the Mining and Reclamation Plan, as well as standards and requirements of other regulating resource agencies.

Mitigation M-4:

1. Operations shall be consistent with the standards and requirements of CHERT, DF&G, COE, RWQCB and other regulating resource agencies.
2. The project shall employ Best Management Practices (BMP's) for Erosion and Sediment Control (ESC) and Contractor Activities (CA) as identified in the California Storm Water Best Management Practice Handbook for Construction Activity.
3. Operations shall maintain a minimum 500 foot setback from the bridge unless a smaller setback is approved by the North Coast Railroad Authority and CalTrans.

Mitigation M-5:

1. Gravel mining activities will be restricted to summer months during daylight hours, after September 15<sup>th</sup> and before November 1<sup>st</sup>, to minimize impacts to wildlife, including the northern spotted owl and marbled murrelet.

**19. EARLIER ANALYSES.**

Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 16063(c)(3)(D). In this case a discussion should identify the following on attached sheets:

- a) Earlier analyses used. Identify earlier analyses and state where they are available for review.
  1. Humboldt County General Plan

2. Humboldt County Zoning Ordinance
3. Mitigated Negative Declaration adopted with the 1986 approval of the original project
4. 1992 Program EIR for Removal of Gravel from the Lower Eel River and Interim Monitoring Program and Adaptive Management Practices for Gravel Removal from the Lower Eel and Van Duzen Rivers.

Items are available for review at Humboldt County Planning Division.

b) Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measure based on a the earlier analysis.

See 19.a above

c) Mitigation measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

See 19.a above

## 20. SOURCE/REFERENCE LIST

Humboldt County documents are available for review at the Humboldt County Community Development Services – Planning Division during regular business hours.

Berg, Alice, D. Halligan, K. Hess. 2002. *Biological Assessment for Southern Oregon/Northern California Coasts Coho Salmon, California Coastal Chinook Salmon, Northern California Steelhead that may be affected by LOP-02-1 Gravel Extraction Operations in Humboldt County of Humboldt*

Bosch, Ray. 1998. *Noise Monitoring of Humboldt County Crushing Operations near Founders Grove*

California Forest and Range Experiment Station. 1955. *Soil-Vegetation Maps of California*

California Department of Fish and Game. July 2008. *Biogeographic Information and Observation System*

California Department of Transportation. 2007. Web Application.

California Native Plant Society. 2007. Web Application.

California Natural Diversity Database. September 2007. Reports: Redcrest Quadrangle. California Department of Fish and Game.

Denton, Douglas N. et al. 1975. *Van Duzen River Basin Environmental Atlas*. State of California, the Resources Agency, Department of Conservation; and Humboldt County.

Halligan, Dennis. 2003. *Fish Habitat Mapping* (Unpublished). Natural Resource Management Corporation.

Harkins, Joshua P. 2004. *Summary of 1<sup>st</sup> Three Years of a 50 Year Van Duzen Water Quality Monitoring Project, Friends of the Van Duzen. BS Environmental Resource Science.*

Humboldt County. 1984. *Humboldt County General Plan, Volume 1, Framework Plan.*

Humboldt County. 1986. *Initial Study and Mitigated Negative Declaration – Pacific Lumber Bar – Van Duzen*

National Marine Fisheries Service. 2004. *Biological Opinion, Letter of Permission Procedure 2004-1 for Gravel Mining and Excavation Activities within Humboldt County.*

Strand, Rudolph G. 1961. *Geologic Map of California*

Thomas, Jack, E. Forsman, J. Lin et al. 1990. *A Conservation Strategy for the Northern Spotted Owl*

US Environmental Protection Agency, Region IX. 2007. *Lower Eel River Total Maximum Daily Loads for Temperature and Sediment*

US Fish and Wildlife Service. 1998. *Biological Opinion, Humboldt County Gravel Operations near Founders Grove, Humboldt Redwood State Park*

US Fish and Wildlife Service. 2004. <http://endangered.fws.gov/i/b6k.html>

US Fish and Wildlife Service. 2006. *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California*

US Fish and Wildlife Service. 2007. [www.fws.gov/oregonfwo/Species/Data/YellowBilledCuckoo/default.asp](http://www.fws.gov/oregonfwo/Species/Data/YellowBilledCuckoo/default.asp)

US Fish and Wildlife Service. 2007. [www.fws.gov/arcata/es/birds/MM/murrelet.html](http://www.fws.gov/arcata/es/birds/MM/murrelet.html)

Contact:

Steve Cannata, Biologist. California Department of Fish and Game. August 27, 2007.

Jim Falls, Geologist. California Geological Survey. August 31, 2007.

Ken Hoffman, Biologist. US Fish and Wildlife Service. September 5, 2007.

# Environmental Checklist Form

**Project Title:** Van Duzen River Bar Gravel Removal  
**Lead Agency:** Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501-4484

**Contact Person:** James R. Baskin  
(707) 445-7541 ext. 24

**Project Location:** (See Agenda Item Transmittal form)

**General Plan Designation:** (See Agenda Item Transmittal form)

**Zoning:** (See Agenda Item Transmittal form)

**Description of Project:** (See Agenda Item Transmittal form)

**Surrounding Land Uses and Setting:** The project site is located along the northern banks of the Van Duzen off of State Highway 36 about nine miles east of the community of Carlotta.

The gravel extraction site is situated within the 100-year floodplain of the Van Duzen River. Vegetation cover consists of a sparse mixture of upland grasses, forbs and brush along the primarily denuded river bar. Remnants of mixed conifer - hardwood forest lie along the riparian corridor. Slopes in the vicinity range average approximately 5-10%.

Properties surrounding the project along Sate Highway 36 are utilized as commercial timberlands.

**Other public agencies whose discretionary approval is required** (e.g. permits, financing approval, or participation agreement.): None

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Land Use and Planning              | <input checked="" type="checkbox"/> Transportation/Circulation | <input type="checkbox"/> Public Services               |
| <input type="checkbox"/> Population and Housing             | <input checked="" type="checkbox"/> Biological Resources       | <input type="checkbox"/> Utilities & Service Systems   |
| <input checked="" type="checkbox"/> Geological Problems     | <input type="checkbox"/> Energy & Mineral Resources            | <input checked="" type="checkbox"/> Aesthetics         |
| <input checked="" type="checkbox"/> Water                   | <input checked="" type="checkbox"/> Hazards                    | <input checked="" type="checkbox"/> Cultural Resources |
| <input checked="" type="checkbox"/> Air Quality             | <input checked="" type="checkbox"/> Noise                      | <input checked="" type="checkbox"/> Recreation         |
| <input type="checkbox"/> Mandatory Findings of Significance |  |  |

## DETERMINATION:

On the basis of this initial evaluation:

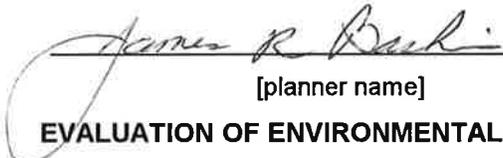
I find that the proposed project as conditioned COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.....

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared. ....

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.....

## Environmental Checklist Form

I find that the proposed project may have a significant effect(s) on the environment, there will not be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. ....

  
[planner name]

20 AUG 97  
Date

### EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is included in Section XVII (at the end of the checklist) for all answers except "No Impact" answers. "No Impact" answers are adequately supported by the information sources cited in the parenthesis in the "Source" column. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) A source list is cited below.
- 4) "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The mitigation measures that reduce the effect to a less than significant level are referenced in the "Source" list column and/or described in Section XVIII at the end of the checklist.
- 4) "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (CEQA Guidelines Section 15063 (c)(3)(D)). Earlier analyses are discussed in Section XIX at the end of the checklist.
- 6) All answers take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

### Source List:

1. **General Plan(s)** (Including where appropriate - Framework Plan, Community Plans, Local Coastal Plans; and including reference and resource maps)
2. **Zoning Ordinance(s)** (Including where appropriate - Inland, Coastal; and including reference maps)
3. **Staff Report(s)** (including the Conditions of Approval)
4. **Agency Referral(s):** BID, LUD, DEH, CDFG, CDF, DOC-OMR, RWQCB, NCUAQMD, CDOT, SLC, NMFS, USA-COE
5. **Environmental Assessment(s):** DPW Negative Declaration
6. **Reference Material(s):** USFS Soil Vegetation Survey Map 27 D-2, "Eureka " 15 ' USGS Quadrangle  
UC Davis Coop. Agric. Ext. , Soils of Western Humboldt County
7. **Plan of Operation Report:** N/A

<b>I. LAND USE AND PLANNING. Would the proposal:</b>					
a) Conflict with general plan designation or zoning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
c) Be incompatible with existing land use in the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Affect agricultural resources or operation (e.g. impacts to soils or farmlands, or impacts from incompatible land uses)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>II. POPULATION AND HOUSING. Would the proposal:</b>					
a) Cumulatively exceed official regional or local population projects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Displace existing housing, especially affordable housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>III. GEOLOGICAL PROBLEMS. Would the proposal result in or expose people to potential impacts involving:</b>					
a) Fault rupture?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Seismic ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Seiche, tsunami, or volcanic hazard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
e) Landslides or mudflows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
g) Subsidence of the land?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
h) Expansive soils?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
i) Unique geologic or physical features?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>IV. WATER. Would the proposal result in:</b>					
a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Exposure of people or property to water related hazards such as flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
c) Discharge into surface waters, or other alteration of surface water quality, (e.g. temperature, dissolved oxygen or turbidity)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
d) Changes in the amount of surface water in any water body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)

e) Changes in currents, or the course of direction of water movements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
g) Altered direction or rate of flow of groundwater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
h) Impacts to groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
i) Substantial reduction in the amount of water otherwise available for public water supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>V. AIR QUALITY</b> Would the proposal:					
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
b) Expose sensitive receptors to pollutants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Alter air movement, moisture, or temperature, or cause any change in climate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Create objectionable odors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>VI. TRANSPORTATION/CIRCULATION</b> Would the proposal result in:					
a) Increased vehicle trips or traffic congestion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Hazards to safety from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
c) Inadequate emergency access or access to nearby uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Insufficient parking capacity on-site or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
e) Hazards or barriers for pedestrians or bicyclists?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
f) Conflicts with adopted policies supporting transportation (e.g. bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
g) Rail, waterborne or air traffic impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>VII. BIOLOGICAL RESOURCES</b> Would the proposal result in impact to:					
a) Endangered, threaten or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
b) Locally designated species (e.g. heritage trees)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Locally designated natural communities (e.g. oak forest, coastal habitat, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Wetland habitat (e.g. marsh, riparian and vernal pool)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
e) Wildlife dispersal or migration corridors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)

<b>VIII. ENERGY AND MINERAL RESOURCES.</b> Would the proposal.					
a) Conflict with adopted energy conservation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Use non-renewable resources in a wasteful and inefficient manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>IX. HAZARDS.</b> Would the proposal involve:					
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
b) Possible interference with an emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) The creation of any health hazard or potential health hazard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Exposure of people to existing sources of potential health hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
e) Increased fire hazard in areas with flammable brush, grass, or trees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>X. NOISE.</b> Would the proposal result in:					
a) Increases in existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
b) Exposure of people to severe noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
<b>XI. PUBLIC SERVICES.</b> Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:					
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Maintenance of public facilities, including roads?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
e) Other governmental services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>XII. UTILITIES AND SERVICE SYSTEMS.</b> Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:					
a) Power or natural gas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Communications systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Local or regional water treatment or distribution facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Sewer or septic tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
e) Storm water drainage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
f) Solid waste disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)

g) Local or regional water supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>XIII. AESTHETICS</b> Would the proposal:					
a) Affect a scenic vista or scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Have a demonstrable negative aesthetic effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
c) Create light or glare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>XIV. CULTURAL RESOURCES</b> Would the proposal:					
a) Disturb paleontological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Disturb archaeological resource?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Affect historical resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Have the potential to cause a physical change with would affect unique ethnic cultural values?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
e) Restrict existing religious or sacred uses within the potential impact area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
<b>XV. RECREATION</b> Would the proposal:					
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
b) Affect existing recreational opportunities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(1,2,3,4)
<b>XVI. MANDATORY FINDINGS OF SIGNIFICANCE</b>					
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
c) Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1,2,3,4)

**XVII. DISCUSSION OF CHECKLIST RESPONSES**

1.b) Finding: The proposal may conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project.

VII.d) **Finding:** The proposal may result in impact to wetland habitat (e.g. marsh, riparian and vernal pool).

**Discussion:** See Discussion under Item VII.a., above.

IX.a) **Finding:** The proposal may involve a risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation).

**Discussion:** The accidental release of motor fuels or lubricants from heavy construction equipment during extraction activities is possible. The potential for this effect is seen as less than significant given the County's equipment preventative maintenance and repair program.

X.a) **Finding:** The proposal will result in increases in existing noise levels.

**Discussion:** The operation of extraction and transport equipment will raise existing noise levels. These effects are seen as temporary and less than significant.

X.b) **Finding:** The proposal may result in exposure of people to severe noise levels.

**Discussion:** Mining operator personnel and other river users may be exposed to elevated noise levels in proximity to extraction and transport equipment. Equipment drivers routinely employ ear protection devices during operations. Again, the impacts are seen as temporary and less than significant.

XIII.b) **Finding:** The proposal may have a demonstrable negative aesthetic effect.

**Discussion:** River users (swimmers, canoeists, fisherpersons) may have their aesthetic experience negatively effected if passing by the project site during extraction operations. Given the small scale and short duration of these activities, the effect is viewed as less than significant.

XV.b) **Finding:** The proposal may affect existing recreational opportunities.

**Discussion:** See Discussion under Item XIII.b., above.

## **XVIII. DISCUSSION OF MITIGATION MEASURES, MONITORING, AND REPORTING PROGRAM**

Mitigation measures and their monitoring have been established for erosion control, water quality preservation and the protection of environmentally sensitive habitat areas. These requirements are detailed in the approved *Interim Monitoring Program and Adaptive Management Practices for Gravel Removal from the Lower Eel and Van Duzen Rivers*.

## **XIX. EARLIER ANALYSES.**

As part of the initial review of the mining permit in 1986, a *Negative Declaration* was prepared for the project by the Public Works Department (*Notice of Determination* filed on 10/8/86). This study has limited application to the present proposal, as several fish and wildlife habitat concerns have resulting in state and federal endangered or threatened species candidacy or listings not previously addressed. Additionally, the cumulative effects from gravel mining along the Eel and Van Duzen Rivers are subject to mitigation and monitoring under the 1992 *Program EIR For Removal of Gravel From The Lower Eel River* (HCDPW, 1992), herein incorporated by reference, but previously not discussed in the earlier project environmental document.

**Discussion:** The project involves surface mining on the Van Duzen River, an activity addressed under the County's 1992 *Program EIR For Removal of Gravel From The Lower Eel River* (HCDPW, 1992) and *Interim Monitoring Program and Adaptive Management Practices for Gravel Removal from the Lower Eel and Van Duzen Rivers*. These environmental programs establish mitigation measures and monitoring programs to protect these waterways from adverse direct and cumulative effects due to gravel extraction. Re-issuance of the permit has been conditioned upon conformance with these programs.

- III.f) **Finding:** The proposal may result in or expose people to potential impacts involving erosion, changes in topography or unstable soil conditions from excavation, grading, or fill.

**Discussion:** The project involves the extraction of sand and gravel aggregate products from river bar areas by "bar-skimming" --- the scooping or scraping of the upper portion of depositional materials by front-end loaders or other similar heavy equipment. These excavations are generally shallow in depth, "daylighted" to adjacent grades, and do not result in "pits" or "trenches" from which injury may result. Accordingly, the effect is seen as less than significant.

- IV.b) **Finding:** The proposal may result in exposure of people or property to water related hazards such as flooding.

**Discussion:** The project site is located within the 100-year floodplain of the Van Duzen River. Material extraction and reclamation work is conducted during low-water times of the year. Accordingly the threat of exposure is seen as less than significant.

- IV.c) **Finding:** The proposal may result in discharge into surface waters, or other alteration of surface water quality, (e.g. temperature, dissolved oxygen or turbidity).

**Discussion:** Excavation of aggregate materials from exposed river bars can result in increased turbidity and the entry of siltation into the adjacent waterway if either extraction areas or vehicle transit occurs within the "live" watercourse. The project is conditioned to maintain a minimum horizontal and vertical buffer from the live water of the river to minimize siltation and turbidity effects.

- V.a) **Finding:** The proposal may violate any air quality standard or contribute to an existing or projected air quality violation.

**Discussion:** Operation of gasoline- and diesel-powered heavy equipment in need of repair or maintenance can result in exhaust emissions which could violate established air quality standards for oxidized nitrogenated gases and particulate matter. As the County has an established maintenance and repair program for its gravel extraction equipment, this possible effect is viewed as less than significant.

- VI.b) **Finding:** The proposal may result in hazards to safety from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).

**Discussion:** The access road to the extraction site intersects State Highway 36 along a convex chord of roadway where site distance is limited by roadside vegetation. To mitigate potential traffic safety problems, the applicant shall obtain required CDOT encroachment permits and conduct visibility enhancement to CDOT *Design Manual* standards.

- VII.a) **Finding:** The proposal may result in impact to endangered, threaten or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds).

**Discussion:** Since initial approval in 1986, several avian species and fishery stocks have either been listed and threatened or endangered species, or are presently candidates for such listings. As part of the *Interim Monitoring Program and Adaptive Management Practices for Gravel Removal from the Lower Eel and Van Duzen Rivers*, biological survey data is to be collected and analyzed for potential adverse effects to these species' habitats and other environmentally sensitive areas. This mitigation program should lower these potential impacts to less-than-significant levels.