

RECLAMATION PLAN
FOR
BELL SPRINGS ROCK QUARRY
February 1993

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HUMBOLDT COUNTY
PLANNING COMMISSIONI. GENERAL INFORMATION

Project Name: Bell Springs Rock Quarry

Operator: Humboldt County Road Division
1106 Second Street
Eureka, CA 95501
(707) 445-7421

Owner/Surface Rights: Richard G. Drewry
P.O. Box 226
Redway, CA 95560
(707) 923-2640

Estimated Annual Production: 2,000 Cubic Yards

Estimated Total Production: 100,000 Cubic Yards

Estimated Maximum Depth: 60 Feet

Proposed Start-Up Date: In use since 1952

Proposed Termination Date: 2042

Location: AP#216-021-07 - Northeast quarter, southwest quarter of Section 16,
T5S, R5E, H. B. & M. Approximately 300 feet south of the junction
of Bell Springs Road and Island Mountain Road (see maps and photo
in figures 1-5).

II. DESCRIPTION OF ENVIRONMENTAL SETTING

Geomorphology.--This small rock quarry is located on the top of the ridge which separates the Main Eel River and the South Fork Eel River drainages. Originally, the site consisted of a mound approximately 60 feet high and 150 feet in diameter. Quarrying over the past 40 years has reduced the height by about 50 feet over the central portion. Approximately 70% of the original exterior slopes of the mound are intact.

The quarry is located on the south and west side of Bell Springs Road at an elevation of approximately 2,400 feet above mean sea level. It occurs in an area of rolling to steep slopes whose vegetation is primarily grasses. There is no surface water at the site.

Geology.--This mountain region of the Eel River basin consists of Franciscan melange which is a highly sheared unit composed of a matrix of sheared massive sandstone. The rock in the quarry itself consists of graywacke and sandstone which has been determined by the Materials Lab to be of excellent quality for road maintenance purposes. Typically, Franciscan melange consists of a rolling hummocky terrain highly susceptible to mass movement in which the melange boulders form scattered knobs that protrude out of grassland and grass-oak woodland. Figure 6 is a portion of the 7.5 minute Harris Quadrangle Map showing the project site. The SS indicates the sandstone and shale rock types found here. There is an earthflow symbol shown to the south and west of the site. Quarrying activity here over the past 40 years has had no known effect on earth movement. This data was compiled by Thomas E. Spittler, Geologist, California Division of Mines & Geology, 1984.

Soils.--The Pacific Southwest Forest and Range Experiment Station, in cooperation with the California Division of Forestry and the University of California at Berkeley, produced a soil vegetation map 29D-3 in May, 1952 which was revised in 1975. This map designates the soil at the quarry site as being in the Laughlin series with a depth of two to three feet. This soil is loam with parent material of sandstone and shale. It is slightly acid and found in rolling to steep uplands. This soil type is permeable with good drainage. It is rated as being unsuitable for growing timber and good to fair for grass.

Vegetation.--There is one large, picturesque oak tree immediately next to Bell Springs Road on the east side of the quarry; one large, dying douglas fir tree immediately on the south slope; and several oak and bay trees along the west side of the quarry. Ground cover surrounding the site consists of perennial grasses. The trees are critical from an aesthetic standpoint and will be left intact.

The California Department of Fish & Game Natural Diversity Data Base listed no rare or endangered plant species at the project site as of September 15, 1992.

Wildlife.--None was observed at the site. Falcons, turkey vultures and swallows were observed in the vicinity. Mammals expected to occur here would include deer, bear and rodents.

The California Department of Fish & Game Natural Diversity Data Base listed no rare or endangered animal species at the project site as of September 15, 1992.

Noise Levels.---Ambient noise levels would range from about 40 dBA to 70 dBA and would result from wind, bird calls, cattle and occasional automobiles. The nearest residence is located two miles from the site.

III. DESCRIPTION OF THE MINING OPERATION

The Road Division of the County Public Works Department has used rock quarried from this site for the past 40 years. Periodically, a crusher, front-end loader and bulldozer are brought to the site. Rock is removed from the central area of the original mound, crushed and stockpiled 300 feet north of the pit for use as needed. This occurs approximately every three to four years and the duration of each crusher operation is two weeks.

To hold environmental impacts to an insignificant level, rock is removed only from the center of the original mound. The original exterior slopes and vegetation remain untouched. This method is creating a horseshoe shaped pit surrounded by the original vegetation and slopes.

At the end of each working of this pit, the interior area is smoothed out.

The project area involved at this site totals approximately two acres including the stockpile area.

IV. DESCRIPTION OF PROPOSED RECLAMATION

The area surrounding the project site is used for cattle grazing. This is the most likely future use of the site when all available rock has been removed. It is estimated that this quarry will be used for approximately another 50 years.

Reclamation will not begin until this quarry is no longer in use since the small area involved and the recurrent operation precludes any staged reclamation.

Reclamation will consist of spreading a thin layer of top soil over the excavated area and seeding it with native grass found in the surrounding area. This will be accomplished in early fall to coincide with the onset of the annual rainy season. If necessary, mulch will be used until the seeds germinate and the plants achieve enough growth to provide erosion control.

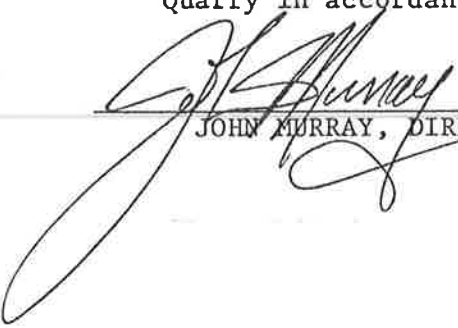
The revegetation will be monitored by the Road Division to ensure that it meets the following performance standards: 60% cover within three years; no reseeded area larger than 100 square feet containing less than 40% vegetation cover within three years.

All equipment and debris will be removed from the site. There are no affected surface waters at this site; therefore, no rehabilitation of channels or banks will be necessary. The implementation of this Reclamation Plan will have no effect on future mining in the area.

To guarantee site reclamation, it should be noted that the County Planning Department is the lead agency in issuing a Conditional Use Permit to permit the Public Works Department to operate this quarry. Because the Public Works Department is a department with the government of Humboldt County and the Planning Department is a department within the same government, the Public Works Department feels that a signed statement included in this Reclamation Plan is sufficient to guarantee that the Reclamation Plan will be implemented.

The following signed statement is included in the Reclamation Plan as required by SMARA (PRC) Section 2772(j).

"I, John Murray, Director of Public Works, acknowledge that the Humboldt County Department of Public Works has responsibility for and will reclaim the lands involved with the Bell Springs Rock Quarry in accordance with this Reclamation Plan."



JOHN MURRAY, DIRECTOR

7/25/92

DATE

ATTACHMENT 1

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION**

5550 SKYLANE BLVD. SUITE A
SANTA ROSA, CA 95403
PHONE: (707) 576-2220



December 14, 1992

Ms. Jonathan Schnal
Humboldt County Planning and Building Department
3015 H Street
Eureka CA 95501-4484

Dear Mr. Schnal:

We have received and reviewed the proposed surface mining permit and reclamation plan for Humboldt County Works Department Richard Drewry Bell Springs Rock Quarry AP#216-021-07 CUP-19-92/SMP02-92/RP-02-92. This project may require a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of storm water associated with industrial activity. We recommend the Planning Commission condition approval of this surface mining quarry operation upon compliance with a storm water discharge permit unless the applicant certifies there will be no storm water runoff from the quarry, stockpiles, and access roads. Please call me at 576-2665 if you have questions.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Albert L. Wellman'.

Albert L. Wellman
Associate Water Resources
Control Board

ALW:lmf/1211humq

cc: Donald C. Tuttle, Humboldt County Public Works Department, 1106 Second Street, Eureka
CA 95501
Richard Drewry, P.O. Box 226, Redway, CA 95560

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**HUMBOLDT COUNTY
PLANNING COMMISSION**

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Memo.

**COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS**

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JAN 06 1993

DATE: January 5, 1993
TO: Jonathan Schnal, Planning Department

**HUMBOLDT COUNTY
PLANNING COMMISSION**

FROM: Donald C. Tuttle, Environmental Services Manager *DC*
SUBJECT: BELL SPRINGS ROCK QUARRY APPLICATION FOR CONDITIONAL USE
PERMIT AND RECLAMATION PLAN APPROVAL

This memo is in response to comments received from the California Regional Water Quality Control Board in a letter dated December 14, 1992 signed by Albert L. Wellman.

We have discussed this matter with Mr. Wellman and Mr. John Hannum of the Regional Board. The Federal law places all mining operations in one category and does not recognize that there are, in fact, differences between them with regard to their actual potential for adding pollutants to the nation's waters. The Bell Springs Quarry is a small operation that has been utilized by the County for the past 40 years. During that time, there has never been a complaint that this quarry has contributed to the pollution of the nation's waters.

As indicated in the Initial Study, production at this site is approximately 2,000 cubic yards of material annually. The site is actually worked every three to four years for a period of six to eight days and stands idle during the interim. There are no industrial structures associated with this operation and no equipment is kept at the site when it is idle.

The only actual potential source of industrial pollution that this quarry operation presents is the loss of hydraulic fluid or other petroleum hydrocarbons from the equipment and this is minimal due to the preventive maintenance practices of the Public Works Department. We have been told that any soil that is washed from the site by rainfall would be considered a pollutant. It is unlikely that any soil is eroded from the site due to the permeability of the soil in the area. This means that runoff is limited and most of the rainfall percolates down into the underlying soil.

Aerial photos of the area reveal significant erosion on the adjacent slopes which are utilized for livestock grazing. This activity represents a far greater potential for introducing pollutants into the nation's waters than the extremely small scale quarrying activity conducted at this site.

There does not appear to be good and sufficient reason for the Water Quality Control Board's recommendation and we request that the Surface Mining Permit be granted without the condition of compliance with a Stormwater Discharge Permit.

cc: Albert L. Wellman
Richard Drewry

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DEPARTMENT OF CONSERVATION

DIVISION OF MINES AND GEOLOGY

SACRAMENTO OFFICE

801 K STREET, MS 09-37

SACRAMENTO, CA 95814-3531

(Phone 916-323-8567)



January 4, 1993

Mr. Jonathan Schnal
Humboldt County Planning Department
3015 "H" Street
Eureka, CA 95501-4484

Department of Public Works Reclamation Plan
for Bell Springs Rock Quarry
CUP 19-92/SMP 02-92

Dear Mr. Schnal:

The Mined-Land Reclamation Project staff of the Department of Conservation's Division of Mines and Geology (DMG) has reviewed the agenda item transmittal for a conditional use permit/surface mining permit and reclamation plan for the extraction of 100,000 cubic yards of rock from the Bell Springs Rock Quarry on assessor parcel number 216-021-07. The following comments, prepared by James Pompy and Michael Sandeck, are offered to assist in your review of this project.

The Surface Mining and Reclamation Act of 1975 (SMARA) and the State Mining and Geology Board regulations for surface mining and reclamation practice (California Code of Regulations (CCR), Title 14, Chapter 8, Article 1, Sections 3500 et seq.) (copies enclosed) require that specific items be addressed or included in reclamation plans. The following mandatory items were either not included or not sufficiently addressed in the documents we reviewed; the reclamation plan should be supplemented to include these items.

1. SMARA Section 2772(e) requires that the plan include a map with boundaries and information pertinent to the reclamation of the site. The location of the stockpiles, active and future mining areas should be indicated on the map.

Topographic information should be provided in such detail as to indicate interim and final site surface drainage. Drainage should be provided to distribute runoff evenly over the site. Soils on the ridge are prone to gully-erosion and concentrated surface flow should be avoided.

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**HUMBOLDT COUNTY
PLANNING COMMISSION**

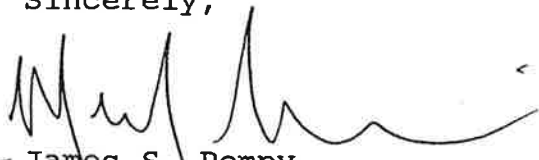
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Mr. Jonathan Schnal
Page 2

2. CCR Section 3503(a)(2) discusses overburden stockpiles and CCR Section 3503(f) discusses resoiling. The reclamation plan states that final reclamation will entail resoiling of disturbed areas. The source of the soil, stockpile location and erosion control methods to be employed to protect the stockpiles, if any, should be discussed in the plan.
3. The reclamation plan proposes to revegetate the site with native grasses found in the surrounding area, stating that the "ground cover surrounding the site consists of perennial grasses." The species of grasses comprising the existing vegetation are not discussed, nor are the species to be restored to the site. Bald hill prairies in Humboldt County often contain several species of native grasses, as well as other herbaceous perennials. CCR Section 3503(g) requires that revegetation be appropriate for the setting of the site, and that available research be used to address revegetation methods and the selection of species for the site. We recommend that the reclamation plan include a description and list of grasses occurring on site and the species mix to be used during revegetation.
4. SMARA Section 2773(a) requires that the reclamation plan establish "site-specific criteria for evaluating compliance with the approved reclamation plan including topography, revegetation, and sediment and erosion control." The reclamation plan proposes a 60 percent cover of grasses within three years and no reseeded area larger than 100 square feet with less than 40 percent vegetation cover within three years. We recommend that the plan develop a single percent-cover figure for a three-year performance criterion. We also recommend that the 40 percent standard be used to trigger remedial action prior to the end of the three-year period. Annual monitoring will enable the applicant to implement remedial activity, if it is necessary.

If you have any questions or require assistance with other mine reclamation issues, please contact me at (916) 323-8565.

Sincerely,


for James S. Pompy
Mined-Land Reclamation Project
Manager

Enclosures

Mr. Jonathan Schnal
Page 3

Concur:

1-5-93 Trinda L. Bedrossian

Dated: Trinda L. Bedrossian
Supervising Geologist
RG 3363, CEG 1064

Memo.

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS

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JAN 15 1993

DATE: January 15, 1993

TO: Jonathan Schnal, Planning Department

HUMBOLDT COUNTY
PLANNING COMMISSION

FROM: Donald C. Tuttle, Environmental Services Manager *DC*

SUBJECT: BELL SPRINGS ROCK QUARRY APPLICATION FOR CONDITIONAL USE
PERMIT AND RECLAMATION PLAN APPROVAL

This memo is in response to comments received from the Division of Mines & Geology in a letter dated January 4, 1993 signed by James S. Pompy.

1. Section III of the Reclamation Plan describes the location of the stockpiles and the mining area. The mining at the site is producing a shallow, bowl-shaped depression covering an area of less than one acre. Surface run-off from the pit is virtually nil, due to this shape, and confirmed by a site visit by Public Works staff during a substantial rain event on January 6, 1993. No surface run-off was observed on that date. The water ponded within the pit and subsequently percolated down through the surface.

The gully erosion which is plainly evident in Figure 5 of the Reclamation Plan is the result of natural processes, probably exacerbated by the grazing of animals on the slopes, and is not the result of the mining of this pit which has been in operation for a period of 40 years.

2. As explained in Section IV of the Reclamation Plan, it is anticipated that this site will be mined for approximately another 50 years, terminating in the year 2042. Since the mining is limited to the bowl-shaped interior of the site, involving an area less than one acre, no staged reclamation is proposed nor is it necessary. Reclamation will take place at the end of the usefulness of this site. Therefore, the Reclamation Plan does not address the source of the top soil that will be used, as that will be determined when that time approaches. There is no present proposal for stockpiling soil at the site and no erosion control methods are necessary.

3. Since revegetation will not take place for approximately 50 years, it is unnecessary to describe and list the native and exotic plants and grasses presently found surrounding the project site. That task will be undertaken as the time for reclamation nears so that it will accurately reflect the vegetation occurring at the site 50 years hence. Revegetation will then be done using plants appropriate for the setting of the site.

4. The proposed performance standards for revegetation; i.e., 60% cover in three years, no reseeded area larger than 100 square feet with less than 40% cover in three years, are site specific criteria for evaluating compliance with an approved Reclamation Plan. The Reclamation Plan states that mulch will be used, if necessary, to provide erosion control. The percent-cover figures used in the Reclamation Plan are those previously recommended by staff of the Division of Mines & Geology. The Reclamation Plan states that the Road Division will monitor the site following revegetation.

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DEPARTMENT OF FISH AND GAME

601 LOCUST STREET
REDDING, CA 96001
(916) 225-2300

November 25, 1992

DEC 03 1992



HUMBOLDT COUNTY
PLANNING COMMISSION

Mr. Johnathon Schnal
Humboldt County Planning Department
3015 "H" Street
Eureka, California 95501-4484

Dear Mr. Schnal:

Bell Springs Rock Quarry,
Humboldt County

The California Department of Fish and Game has reviewed the project application for the Humboldt County Public Works request for approval of a quarry near Bell Springs Road in the Garberville area. The project proposes approval of a conditional use permit and surface mining permit and approval of a reclamation plan for the annual extraction of up to 2,000 cubic yards, and periodic use of a portable crusher on-site, two weeks annually from a quarry site.

Based on the Department's review of the above proposed project, habitat present on site, and review of our records, we currently anticipate that this project will not significantly adversely affect fish or wildlife resources.

However, if the project will require any work affecting a stream or lake, the project sponsor(s) is required to notify the Department and consummate a lake or streambed alteration agreement pursuant to Fish and Game Code Section 1600 et seq.

Thank you for your consideration of these comments. If you have any questions regarding our review of this project, please contact staff biologist Mr. Larry Preston at (707) 441-5736.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mark St..." followed by a flourish.

Donald B. Koch
Acting Regional Manager



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Fish and Wildlife Enhancement
Sacramento Field Office
2800 Cottage Way, Room E-1803
Sacramento, California 95825-1846

In Reply Refer To:
1-1-93-TA-165

December 18, 1992

Mr. Thomas D. Conlon
Director of Planning and Building
Humboldt County Planning Commission
3015 H Street
Eureka, California 95501-4484

Subject: Species List for the Proposed Surface Mining at Drewry/Bell
Springs Rock Quarry, Garberville Area, Humboldt County,
California


Dear Mr. Conlon:

This responds to your letter, dated November 13, 1992, requesting a list of listed and proposed endangered and threatened species that may be present within the subject project area.

To the best of our knowledge, there are no listed or proposed threatened or endangered species within the project area. However, we are enclosing a list of candidate species which might, within the foreseeable future, be proposed and then undergo a final rulemaking. If the project may adversely impact a candidate species, we recommend that you consider requesting technical assistance to avoid any conflicts at a later date should the species become listed and be present within the area of the proposal. Technical assistance should be requested of our office at the letterhead address.

Should you have additional questions regarding this list or your responsibilities under the Act, please contact Laurie Stuart Simons at (916) 978-4866. Thank you for your interest in endangered species.

Sincerely,


Wayne S. White
Field Supervisor

Enclosure

cc: FWS-SFO (Wetlands, J. Browning), Sacramento, CA

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HUMBOLDT COUNTY
PLANNING COMMISSION

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ENCLOSURE A

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND
CANDIDATE SPECIES THAT MAY OCCUR IN THE AREA OF THE PROPOSED
SURFACE MINING AT DREWRY/BELL SPRINGS ROCK QUARRY, GARBERVILLE AREA,
HUMBOLDT COUNTY, CALIFORNIA
(1-1-93-TA-165, DECEMBER 18, 1992)

Listed Species

None

Proposed Species

None

Candidate Species

Amphibians

foothill yellow-legged frog, *Rana boylei* (2)
northern red-legged frog, *Rana aurora aurora* (2)
tailed frog, *Ascaphus truei* (2R)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (2)

- (E)--Endangered (T)--Threatened (P)--Proposed (CH)--Critical Habitat
(1)--Category 1: Taxa for which the Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.
(2)--Category 2: Taxa for which existing information indicated may warrant listing, but for which substantial biological information to support a proposed rule is lacking.
(1R)-Recommended for Category 1 status.
(2R)-Recommended for Category 2 status.
(*)--Listing petitioned.
(*)--Possibly extinct.