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Staff:	Jim Baskin
Staff Report:	July 19, 2002
Hearing Date:	August 7, 2002
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:	**1-02-020**
APPLICANT:	**City of Arcata**
PROJECT LOCATION:	Within the site of the former Little Lake Industries wood products manufacturing site and the adjoining Arcata Marsh and Wildlife Sanctuary, 46 South "I" Street, Arcata, Humboldt County. APNs 503-232-04 and -13.
PROJECT DESCRIPTION:	Restoration and enhancement of 1,600 lineal feet of Jolly Giant Creek/Butchers Slough by removing approximately 11,000 cubic yards of fill, developing a naturalized flood terrace and backwater alcoves on the western bank of the creek and the northern bank of the slough, and establishing riparian vegetation.
GENERAL PLAN DESIGNATION:	Industrial, Limited (I-L).
ZONING DESIGNATION:	Coastal Zone Heavy Industrial with Wetlands and Creeks Protection Combining Zone (CZ-I-H:WCP)
LOCAL APPROVALS RECEIVED:	City of Arcata Design Review No. 012-092-DR, and City of Arcata Coastal Development Permit No. 012-114-CDP.

OTHER APPROVALS REQUIRED:	U.S. Army Corps of Engineers FCWA Sec. 404 Individual Permit or Nationwide Permit No. 27, North Coast Regional Water Quality Control Board FCWA Sec. 401 certification, and California Department of Fish and Game FGC Sec. 1603 Streambed Alteration Agreement.
SUBSTANTIVE FILE DOCUMENTS:	City of Arcata LCP, "South I Street Mill Reuse Project Wetland Delineation" (Innovative Technical Solutions, Inc., 1/25/02), "Phase One Environmental Site Assessment – Beaver Lumber Property, 46 South I Street Arcata, CA, LOP #12018" (Winzler & Kelly Consulting Engineers, 4/98).

SUMMARY OF STAFF RECOMMENDATION

Staff recommends approval with special conditions of the proposed wetland enhancement project. The project would increase the flood storage area and create a diversity of wetland habitats along the lower reaches of the single watercourse known as Jolly Giant Creek and Butchers Slough, located at the north end of Arcata Bay, within the City of Arcata in Humboldt County. The proposed project involves dredging and filling within a portion of the existing watercourse and formerly filled tidal wetlands, including: (1) excavating approximately 11,000 cubic yards of material from the western and northern edges of the creek and slough channels, respectively, to expand the watercourses' high-water channel cross-sectional area; (2) installing 10 anchored log structures to enhance in-stream habitat; (3) replanting the project area with a variety of freshwater and transitional saltwater plant species; and (4) removing approximately 240 lineal feet of superfluous concrete debris riprap along the watercourses and the chain-link fence along the southern property boundary. The project is an allowable use for dredging and filling of wetlands because it is for a restoration purpose intended to enhance wetland habitat values at the site consistent with Coastal Act Section 30233(a)(7). Furthermore, consistent with Coastal Act Section 30236, the substantial alterations of a stream that would occur are similarly permissible as the project as conditioned: (a) would incorporate the best mitigation measures feasible; and (b) comprises a project whose primary function is the improvement of fish and wildlife habitat.

The proposed project is intended to benefit the environment by enhancing wetland habitat values. However, to ensure that the proposed project does not result in unintended significant adverse impacts to coastal resources and actually enhances wetland habitat values consistent with the resource protection provisions of Section 30233 and 30240, the Commission attaches Special Condition Nos. 1-8. These recommended conditions require that: (1) the applicant obtain appropriate project approval from the State Lands

Commission; (2) the applicant obtain appropriate project approval from the California Department of Fish and Game; (3) a final monitoring plan be submitted for review and approval by the Executive Director to ensure that the goals and objectives of the enhancement project are met; (4) an erosion control and runoff plan be submitted for review and approval by the Executive Director to ensure that the enhancement project does not result in impacts to coastal water quality; (5) the proposed wetland expansion and enhancement project be carried out; (6) no spoils materials or other construction related debris be placed in coastal waters or wetlands; (7) construction activities occur only between April 15th and November 1st to further minimize potential stormwater impacts to coastal waters and protect anadromous fish runs; and (8) the applicant obtain appropriate project approval from the U.S. Army Corps of Engineers.

Staff believes the proposed project as conditioned is consistent with the Coastal Act and recommends approval of the proposed project with the above-identified conditions.

STAFF NOTES

1. Jurisdiction and Standard of Review.

The proposed project is located within the incorporated boundaries of the City of Arcata partially within a former forest products industrial site and partially within the Arcata Marsh and Wildlife Sanctuary. The project site is along a watercourse that is partially freshwater stream and partially tidally influenced from Arcata Bay. The City of Arcata has a certified LCP, but those portions of the project site on tidelands, submerged lands, or former tidelands subject to the public trust are within the Commission's coastal development permit jurisdiction. These portions correspond to the areas between the stream banks of Jolly Giant Creek and Butchers Slough (see Exhibit No. 3). All other portions of the project site are within the City of Arcata's permit jurisdiction. The City has already approved a coastal development permit for those portions of the project. The City's approval was not appealed to the Commission.

The standard of review that the Commission must apply to the portion of the project segments within its permit jurisdiction is the Coastal Act.

Due to the nature of the project, the boundary between the City and Commission's coastal development permit authority will be changed during the course of the proposed work. As fill materials are removed and the excavated areas are opened to tidal inundation, these areas will become part of the Commission permitting jurisdiction. Subsequent development within the newly created, tidally-inundated areas will be subject to the Commission purview pursuant to Section 30519(b) of the Coastal Act.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. MOTION, STAFF RECOMMENDATION, AND RESOLUTION

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve Coastal Development Permit No. 1-02-020 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a YES vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of the majority of the Commissioners present.

Resolution to Approve Permit:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS: See attached.

III. SPECIAL CONDITIONS:

1. State Lands Commission Review

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director a written determination from the State Lands Commission that:

a. No State lands are involved in the development; or

b. State lands are involved in the development and all permits required by the State Lands Commission have been obtained; or

c. State lands may be involved in the development, but pending a final determination an agreement has been made with the State Lands Commission for the project to proceed without prejudice to that determination.

2. **California Department of Fish and Game Approval**

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, applicant shall provide to the Executive Director a copy of a permit issued by the California Department of Fish and Game (CDFG), or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the CDFG. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

3. **Final Restoration Monitoring Program**

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicant shall submit for review and written approval of the Executive Director, a final detailed restoration monitoring program designed by a qualified wetland biologist for monitoring of the wetland enhancement site. The monitoring program shall at a minimum include the following:

a. Performance standards that will assure achievement of the restoration goals and objectives set forth in Coastal Development Permit Application No. 1-02-020 as summarized in the Finding B, "Project Description," and shall include but not be limited to the following standards: (a) utilization by tidewater goby (Eucyclogobius newberryi), steelhead (Oncorhynchus mykiss), coho salmon (Oncorhynchus kisutch), and coastal cutthroat trout (Oncorhynchus clarki); and (b) increases in freshwater/brackish saltmarsh and riparian vegetation.

b. Provisions for monitoring at least the following attributes: (a) presence of tidewater goby (Eucyclogobius newberryi), steelhead (Oncorhynchus mykiss), coho salmon (Oncorhynchus kisutch), and coastal cutthroat trout (Oncorhynchus clarki); and (b) increases in freashwater/brackish saltmarsh and riparian vegetation at the following frequency: biannually for five years using methods such as: fyke netting / electro-fishing sampling, transects, and photo plots.

c. Provisions for submittal within 30 days of completion of the initial enhancement work of (1) "as built" plans demonstrating that the initial enhancement work has been completed in accordance with the approved

enhancement program, and (2) an assessment of the initial biological and ecological status of the "as built" enhancements. The assessment shall include an analysis of the attributes that will be monitored pursuant to the program, with a description of the methods for making that evaluation.

d. Provisions to ensure that the enhancement site will be remediated within a year of a determination by the permittee or the Executive Director that monitoring results indicate that the site does not meet the goals, objectives, and performance standards identified in the approved enhancement program and in the approved final monitoring program.

e. Provisions for monitoring and remediation of the enhancement site in accordance with the approved final enhancement program and the approved final monitoring program for a period of five years.

f. Provisions for submission of annual reports of monitoring results to the Executive Director by October 1 each year for the duration of the required monitoring period, beginning the first year after submission of the "as-built" assessment. Each report shall include copies of all previous reports as appendices. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the status of the wetland enhancement project in relation to the performance standards.

g. Provisions for submission of a final monitoring report to the Executive Director at the end of the five-year reporting period. The final report must be prepared in conjunction with a qualified wetlands biologist. The report must evaluate whether the enhancement site conforms with the goals, objectives, and performance standards set forth in the approved final enhancement program. The report must address all of the monitoring data collected over the five-year period.

B. If the final report indicates that the enhancement project has been unsuccessful, in part, or in whole, based on the approved goals and objectives set forth in Coastal Development Permit Application No. 1-02-020 as summarized in Finding B "Project Description," the applicant shall submit a revised or supplemental enhancement program to compensate for those portions of the original program which did not meet the approved goals and objectives set forth in Coastal Development Permit Application No. 1-02-020 as summarized in Finding B "Project Description." The revised enhancement program shall be processed as an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

C. The permittee shall monitor and remediate the wetland enhancement site in accordance with the approved monitoring program. Any proposed changes from the approved monitoring program shall be reported to the Executive Director. No changes to the approved monitoring program shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines no amendment is legally required.

4. **Erosion Control, Runoff, and Spill Prevention Plans**

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicant shall submit, for review and approval of the Executive Director, a plan for erosion and run-off control which implements all of the requirements specified below:

1) The erosion control, run-off, spill prevention and response plan shall demonstrate that:

(a) Run-off from the restoration and enhancement project excavation sites, and wetlands mitigation areas shall not increase sedimentation in coastal waters;

(b) Run-off from the restoration and enhancement excavation sites shall not result in pollutants entering coastal waters;

(c) Best Management Practices (BMPs) shall be used to prevent entry of stormwater runoff into the excavation site, the entrainment of excavated contaminated materials leaving the site, and to prevent the entry of polluted stormwater runoff into coastal waters during the transportation and storage of excavated contaminated materials, including but not limited to the following:

(i.) stormwater runoff diversion immediately up-gradient of the excavation trench and soil stockpile;

(ii.) petroleum-absorbent booms down-gradient of the excavation trench;

(iii.) use of relevant best management practices (BMPs) as detailed in the "California Storm Water Best Management (Municipal, Construction and Industrial/Commercial) Handbooks, developed by Camp, Dresser & McKee, *et al.* for the Storm Water Quality Task Force, including BMP Nos.: CA1 – *Dewatering Operations*; CA12 – *Spill Prevention and Control*; CA22 – *Contaminated Soils Management*, and/or SC10 – *Contaminated or Erodible Surface Areas*; SC8 – *Outdoor Storage of Raw Materials, Products, and Bi-Products*, and/or SC9 – *Waste Handling and Disposal*; ESC1 – *Scheduling*; ESC10 – *Seeding and Planting*, ESC11 – *Mulching*, ESC20 – *Geotextiles and*

Mats, ESC50 – *Silt Fence*, ESC51 – *Straw Bale Barrier*, ESC52 – *Sand Bag Barrier*, ESC30 – *Earth Dike*, ESC31 – *Temporary Drains and Swales*, ESC56 – *Sediment Basin*, and/or TC3 – *Constructed Wetlands*; ESC21 – *Dust Control*; and SC76 – *Storm Channel/Creek Maintenance*; and

(iv.) immediately revegetating the upland area where excavated material from the restoration and enhancement sites will be deposited and contoured.

(d) An on-site spill prevention and control response program, consisting of best management practices (BMPs) for the storage of clean-up materials, training, designation of responsible individuals, and reporting protocols to the appropriate public and emergency services agencies in the event of a spill of hazardous materials during performance of the activities authorized by this permit, shall be implemented at the project to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, or other hazardous materials from entering coastal waters, as approved by the North Coast Regional Water Quality Control Board and/or Humboldt County Department of Public Health – Division of Environmental Health.

2) The plan shall include, at a minimum, the following components:

(a) A schedule for installation and maintenance of appropriate construction source control best management practices (BMPs) to prevent entry of stormwater run-off into the excavation sites and the entrainment of excavated contaminated materials into run-off leaving the excavation site; and

(b) A schedule for installation, use and maintenance of appropriate construction materials handling and storage best management practices (BMPs) to prevent the entry of polluted stormwater run-off into coastal waters during the transportation and/or storage of excavated fill materials, or during grading for wetlands creation.

B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

5. On-Site Wetland Mitigation

The permittee shall complete construction of the proposed wetland expansion and enhancement project detailed in Coastal Development Permit Application No. 1-02-020 as conditioned within six months of the commencement of any development authorized by Coastal Development Permit No. 1-02-020.

6. Construction Responsibilities and Debris Removal

The permittee shall comply with the following construction-related requirements:

(a) No construction materials, debris, or waste shall be placed or stored where it may be subject to entering waters of Humboldt Bay, Butchers Slough, or Jolly Giant Creek;

(b) Any and all spoil material resulting from construction activities shall be deposited in one of the four approved upland locations based upon their composition and the presence of contaminants.

(c) All construction debris including old drainage culverts and buried industrial debris identified for removal shall be removed and disposed of in an upland location outside of the coastal zone or at an approved disposal facility.

7. Timing of Construction

To avoid adverse impacts to coastal water quality during the wet weather season, all project construction activities shall occur between April 15th and November 1st. Planting of riparian vegetation shall occur during the rainy season between November and March to optimize planting success.

8. U.S. Army Corps of Engineers Approval

PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall provide to the Executive Director a copy of a permit issued by the Army Corps of Engineers, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the Army Corps of Engineers. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

IV. FINDINGS AND DECLARATIONS.

The Commission hereby finds and declares as follows:

A. Site Description.

The City of Arcata proposes to both enhance existing tidally-influenced riparian wetlands and restore formerly filled saltmarsh wetlands to provide greater habitat value and diversity for water-associated wildlife within the lower reaches of a watercourse known as Jolly Giant Creek from roughly the middle of the project site upstream and known as Butchers Slough from the middle of the project site downstream. The watercourse runs north-south for approximately 1,000 lineal feet through the project site before turning westward and running east-west for another approximately 600 lineal feet. The project site is situated at the edge of one of Arcata's heavy industrial areas lying along the southern side of the City between Samoa Boulevard (State Highway 255) and Arcata Bay (see Exhibit Nos. 1 and 2). The site comprises the southerly and southeasterly three acres of the former 16.5-acre Little Lake Industries forest products industrial site along with the adjoining northern side of the City's Arcata Marsh and Wildlife Sanctuary (see Exhibit No. 4).

The former industrial forest products site previously supported a lumber mill built in 1939 which has since been demolished. The site is relatively flat and is bordered on its eastern and southern sides by the highly-channelized Jolly Giant Creek / Butchers Slough watercourse.

In addition to the readily recognizable riparian wetlands within the creek and slough banks, portions of the mill site outside of the Commission's jurisdiction are considered seasonal wetland, exhibiting a combination of wetland hydrology, hydric soils, or hydrophytic vegetation indicators. Several derelict industrial structures exist along the western side of the site within the City of Arcata's coastal development permit jurisdiction. On October 24, 2001, the City's Zoning Administrator issued Coastal Development Permit No. 012-36-CDP for the demolition and removal of nine existing buildings on the site. All of these buildings with the exception of brick portions of one structure have been razed. The remaining demolition is not a part of the proposed restoration and enhancement project and will not be impacted by the project.

The restoration/enhancement site within the Commission's jurisdiction is situated within the channelized stream courses at elevations ranging from approximately +4 to +22 feet above mean sea level (msl) referenced from the National Geodetic Vertical Datum (NGVD).

Arcata Bay, its feeder creeks and the surrounding agricultural, public facility, and open space lands provide habitat for a diversity of wildlife. The AM&WS area is habitat for a wide variety of resident and migratory waterfowl, shorebirds, wading birds, songbirds,

and raptors. A smaller number of mammals, amphibians and reptiles also inhabit the area. Several species of fish are found in the project vicinity including the tidewater goby (Eucyclogobius newberryi), a federally-listed endangered species, *coho* salmon (Oncorhynchus kisutch), listed as endangered federally and as a threatened species in California, steelhead (Oncorhynchus mykiss) a state-listed threatened species, and coastal cutthroat trout (Oncorhynchus clarki), a California species-of-special-concern. Numerous avian species are known to commonly roost and forage at the site include the northern harrier (Circus cyaneus), white-tailed kite (Elanus leucurus), Great blue heron (Ardea herodias), Snowy egret (Egretta thula), and Black-crowned night heron (Nycticorax nycticorax).

The primary plant species on the portions of the site within the Commission's permitting jurisdiction consist of a mixture of native and exotic hydrophytic species typical of tidally-influenced riparian corridors, including: pickleweed (Salicornia virginica), salt grass (Distichlis spicata), tufted hairgrass (Deschampsia cespitosa), and Himalayan blackberry (Rubus discolor). Adjacent upland areas within the City's permit jurisdiction are comprised of fill, rubble, and concrete foundations interspersed with mostly non-native, invasive plants, including: creeping buttercup (Ranunculus repens), coyote brush (Baccharis pilularis), pampas grass (Cortaderia jubata), bull thistle (Circium vulgare), Canada thistle (Circium arvense), pennyroyal (Mentha pulegium), wild carrot (Daucus carota), rushes (Juncus sp.), willows (Salix sp.), and Himalayan blackberry (Rubus discolor). There are no rare or threatened plants within the project area.

The project site is surrounded by an assortment commercial-industrial, residential, and public facility uses. The subject property is designated Coastal Heavy Industrial with Wetlands and Creeks Protection Combining Zone (C-I-H:WCP). There are numerous coastal access and recreational amenities for hiking, cycling, bird-watching, and boating in the project vicinity, including the adjoining Arcata Marsh and Wildlife Sanctuary, the Butcher Slough Restoration Project, and the Arcata Marsh Interpretative Center. The site is approximately 200 feet south of State Highway 255. State Highway 101 lies approximately ¼ mile to the east of the site.

B. Project Description.

The City of Arcata proposes to restore and enhance the Jolly Giant Creek / Butchers Slough watercourse at the old I Street mill site. Jolly Giant Creek is a Class II, second-order coastal stream that has been significantly dammed, culverted, and channelized along its approximately 3½-mile length over the last century. As a result much of the original streamside riparian canopy has been removed and major portions of the creek lie in closed culverts beneath Highway 101 and underneath downtown Arcata. Despite this history of impacts, the habitat potential of the Jolly Giant Creek watershed has been recognized by numerous public resource agencies and non-government organizations alike that have fostered interest in restoring the creek. In 1985, the City significantly restored the creek's lower ¼-mile-long reach, Butchers Slough, from its former role as a

logging mill pond to become a part of the adjoining Arcata Marsh and Wildlife Sanctuary. Similar efforts to restore or "daylight" previously culverted and channelized sections of the creek above the project site have been ongoing since the mid-1980's.

The restored portions of Butchers Slough within the AM&WS below the project site now consist of a series of large ponds and channels flanked by wide over-flow plains and surrounded by a well-developed and shaded riparian corridor composed of a predominant overstory of willows (Salix sp.) and red alder (Alnus rubra). However, along the common boundary between the Marsh Sanctuary and the former mill site the subject slough and creek reaches effectively remain narrow, armored, straight drainage channels with little hydrologic complexity and affording only a minimum of fish and wildlife habitat.

One of the most straightforward methods for improving degraded stream habitat is to return the watercourse as closely as practicable back to its pre-modified conditions. Depending upon the specific modifications that have been made, the creek or slough can be improved by a combination of techniques. Specific to the project site, appropriate techniques would include restoring over-bank and floodplain areas lost to channelization, returning hydrologic complexity to the stream by increasing channel sinuosity on artificially straightened reaches and creating off-channel refugia alcoves, replacing large wood vegetation cover elements within the stream channel and along the banks, and re-establishing the native riparian corridor vegetation on denuded reaches or those dominated by invasive, exotic plants.

The project proposes to conduct such work alongside and within a portion of the inner streambanks of Jolly Giant Creek / Butchers Slough as part of a stream habitat restoration project. The proposed project would make the above-listed enhancements and improvements to the Jolly Giant Creek / Butchers Slough watercourse along the reach where its well-defined riparian corridor transitions into a broader tidal slough, and would represent the next phase of the City's ongoing creek restoration work for this watershed.

The proposed project under application has four components: (1) excavating approximately 11,000 cubic yards of material from the western and northern edges of the creek and slough channels, respectively, to expand the watercourses' high-water channel cross-sectional area; (2) installing 10 anchored log structures to enhance in-stream habitat; (3) replanting the project area with a variety of freshwater and transitional saltwater plant species; and (4) removing approximately 240 lineal feet of superfluous concrete debris riprap along the watercourses and the chain-link fence along the southern property boundary (see Exhibit Nos. 4, 5, and 6).

Re-contouring Stream Cross-sectional Area

The applicant proposes to expand and re-contour the channel cross-section along 1,600 lineal feet of Jolly Giant and Butcher Slough to create a more gradually sloped streambank to provide additional floodplain storage area and enhance the watercourses

fish and wildlife habitat (see Exhibit No. 3). Only portions of the development occur within the Commission's jurisdiction. The rest is authorized by City of Arcata Coastal Development Permit No. 012-114-CDP. Backhoes and excavators would be used to remove approximately 11,000 cubic yards of fill materials from a 60 to 80-foot-wide strip along the western and northern sides of the waterway. The wetland excavation and expansion area covers a total of approximately 80,000 square feet of area, of which 3,200 square feet includes existing wetland channel bank area within the Commission's jurisdiction. In addition, ten discontinuous tidal back-channels and coves would be formed off of the existing streambed and extending into the widened floodplain areas to increase hydrologic complexity and augment habitat diversity. To minimize the sedimentation and other impacts to the aquatic environment associated with mechanized equipment within the wetted channel, the work would be conducted during the dry season during low-tide periods. Depending upon their composition and the presence of contaminants, the excavated materials would be either shallowly spread across the adjoining upland portions of the former mill site, or deposited at one of three disposal sites sited throughout the City for future use as fill or roadbase materials.

Riprap and Fencing Removal

To facilitate bankside excavation, approximately 240 lineal feet of bank-armoring riprap and perimeter chain-link fencing placed previously on the southern side of the former mill site along east-west flowing portion of Butchers Slough would also be removed. This removal of materials would also serve to facilitate eventual public access between the Arcata Marsh and Wildlife Sanctuary and the natural areas on the mill-reuse project site. The fencing would be reused as barrier materials in other City construction projects or recycled. Although most of this work is located within the City's permit jurisdictional area, removal of the lower riprap materials at or below the mean high tide line or any entry into this area to stage equipment for removing the fencing or riprap would involve development within the Commission jurisdiction.

Installation of In-stream Log Structures

Following completion of the bankside excavation and streambed re-contouring, ten logs would be installed as large woody debris habitat structures within the newly created backwater tidal channels/coves. The logs would be anchored in place by metal cabling attached to buried boulders to prevent their movement during high-flow periods. The purpose of the log structures is to provide shade and cover to fish and other aquatic organisms utilizing the back-water pools.

Revegetation

Once all grading and log placement work has been completed, the site would be revegetated. Upland areas upon which materials excavated in widening the floodplain were spread would be seeded with an annual rye grass (Lolium perenne) mixture and mulched with rice straw. The areas within the watercourses that would be inundated by tidal waters would be planted with salt-tolerant plant species, including pickleweed

(Salicornia virginica), salt grass (Distichlis spicata), tufted hairgrass (Deschampsia cespitosa), and Lyngbye's sedge (Carex lyngbyei). Brackish-freshwater and upland areas would be revegetated with a variety of species, including red alder (Alnus rubra), Sitka spruce (Picea sitchensis), western red cedar (Thuja plicata), beach pine (Pinus contorta), willows (Salix sp.), red-flowering currant (Ribes sanguineum), twinberry (Lonicera involucrata), red elderberry (Sambucus racemosa), salmonberry (Rubus spectablis), and western thimbleberry (Rubus parviflorus). In addition to stabilizing the areas disturbed by grading, the revegetated areas would provide a more diverse riparian canopy, help stabilize the stream banks, and provide shade for the creek.

The proposed restoration and enhancement work is being pursued as an initial phase of the City's "South I Street Mill Reuse Project," a long-range brownfields redevelopment project being undertaken at the former wood products processing complex. Although comprehensive project plans have not yet been finalized, preliminary plans envision that the planned development will comprise a mixed-use complex with an assortment of light industrial facilities, live-work spaces, and ecotourism-oriented visitor-serving accommodations. Until specific plans for the mill reuse project are developed, the City is currently concentrating on demolishing the remaining former mill buildings and making enhancements to the open space areas on the site.

C. Protection of the Wetland Environment.

The proposed project involves development within wetlands consisting of: (a) excavation along the western and northern stream banks of Jolly Giant Creek / Butchers Slough, respectively, to widen the stream channels' cross-sectional area, create tidally influenced back-water channels and coves, and provide additional high-flow storage area within an expanded floodplain; (b) placement of large woody debris habitat log structures; (c) revegetation and enhancement planting activities within the existing and newly created watercourse channels and stream banks; and (d) removal of previously installed riprap bank armoring and fencing along the northern bank of Butchers Slough. The materials proposed to be removed from the stream banks represent dredging and fill involving a total of approximately 3200 square feet of wetland area within the Commission's jurisdiction (see Exhibit No.7). Once the project has been completed, a total of approximately 80,000 square feet of emergent saltmarsh and permanent riparian wetlands will have been re-established and/or enhanced, representing a net increase of over one acre of newly restored wetlands.

Section 30233 of the Coastal Act states that the diking, filling, or dredging of wetlands shall be permitted only when there is no feasible less environmentally damaging alternative, and only when feasible mitigation measures have been provided to minimize adverse environmental effects. Section 30233 also specifies that diking, filling, or dredging are allowed in wetlands only for limited uses. In addition, Coastal Act Section 30231 provides in applicable part that the biological productivity and the quality of

coastal waters be maintained and restored where feasible by protecting natural vegetation buffer areas near riparian habitats and by minimizing alteration of natural streams.

Coastal Act Section 30233 provides as follows, in applicable part:

> (a) *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:...*
>
> *(7) Restoration purposes...*
>
> *(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...* [emphasis added]

Sections 30233 and 30231 set forth a number of different limitations on what types of projects may be allowed in coastal wetlands. For analysis purposes, the limitations applicable to the subject project can be grouped into four general categories or tests. These tests are:

1. The purpose of the filling, diking, or dredging is for one of the eight uses allowed under Section 30233;

2. that feasible mitigation measures have been provided to minimize adverse environmental effects;

3. that the project has no feasible less environmentally damaging alternative; and

4. that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

(1) Allowable Use for Dredging and Filling of Coastal Waters

The first test set forth above is that any proposed filling, diking or dredging must be for an allowable purpose as specified under Section 30233 of the Coastal Act. One of the allowable purposes for diking, filling, or dredging, under Section 30233(a)(7) is "restoration purposes." As discussed in detail above, the proposed project intends to restore and enhance approximately 1,600 lineal feet freshwater-saltmarsh wetlands along the channelized lower reaches of Jolly Giant Creek / Butchers Slough.

The Commission finds wetland enhancement projects, where the purpose of the project is to improve wetland habitat values, to constitute "restoration purposes" pursuant to Section 30233(a)(7). For example, the Commission concurred with a consistency determination for a wetland enhancement project proposed by the U.S. Fish and Wildlife Service at the Humboldt Bay National Wildlife Refuge (CD No. 33-92). This project similarly involved dredging, diking, and filling of wetlands to create and enlarge shallow ponds and sloughs and replace water control structures and was approved as a "restoration purpose" under Section 30233(a)(7). Another similar wetland enhancement project approved by the Commission as a "restoration purpose" under Section 30233(a)(7) involved the excavation of six acres of Doran Park Marsh to create a new tidal pond wildfowl foraging area at the southeast end of Bodega Harbor, Sonoma County (CDP No. 1-93-04). More recently, the Commission approved similar wetland enhancement projects proposed by the Department of Fish and Game involving excavation of slough channels to create freshwater ponds at the Mad River Slough Wildlife Area adjacent to Arcata Bay several miles to the northwest of the subject site (CDP No. 1-99-063) and on the Fay Slough Wildlife Area (CDP No. 1-00-025). The Commission finds that the proposed project, solely intended to restore and enhance wetland habitat values on the South I Street Mill Reuse Site and within the Arcata Marsh and Wildlife Sanctuary, is for a "restoration purpose" and is allowable under Section 30233.

This finding that the proposed diking, filling, and dredging constitutes "restoration purposes" is based, in part, on the assumption that the proposed project will be successful in increasing wetland habitat values. Should the project be unsuccessful at increasing wetland habitat values, or worse, if the proposed diking, filling, and dredging impacts of the project actually result in long term degradation of the habitat, the proposed diking, filling, and dredging would not actually be for "restoration purposes." To ensure that the project achieves the wetland enhancement objectives for which the project is intended, the Commission attaches Special Condition No. 3. Special Condition No. 3 requires the applicant to submit a final monitoring plan for review and approval by the Executive Director prior to the issuance of the coastal development permit. The monitoring plan is required to outline a method for measuring and documenting the improvements in habitat value and diversity at the site, including wildlife species and abundance, over the course of five years following project completion. Furthermore, Special Condition No. 3 requires the monitoring plan to include provisions for remediation to ensure that the goals and objectives of the wetland enhancement project are met.

The Commission finds that as conditioned, the proposed dredging and filling in coastal wetlands for the proposed restoration and enhancement of riparian and tidal slough habitat falls into the category of "restoration purposes," and therefore is an allowable use pursuant to Section 30233(a)(7) of the Coastal Act.

(2) Adequate Mitigation Measures

The second test set forth by Section 30233 is that adequate mitigation must be provided for adverse environmental impacts. Potential significant adverse impacts that could result from the proposed dredging or filling along Jolly Giant Creek / Butchers Slough include: (1) the removal or coverage of streambank habitat ; (2) impacts to the rare plant Lyngbye's sedge; (3) impacts to fish and wildlife habitat; and (4) water pollution in the form of sedimentation or debris entering coastal waters. Overall, the project would enhance wetland habitat values and would produce generally only beneficial environmental effects. However, the proposed project has been conditioned to ensure that habitat enhancement results and potentially significant adverse impacts are minimized.

a) Removal of Streambank Habitat Area

A potential significant adverse impact resulting from dredging or filling in wetlands is the coverage or removal of streambank habitat. As discussed in the Project Description Finding, the proposed project would involve excavation of approximately 11,000 cubic yards of fill materials commencing at the western and northern streambanks of Jolly Giant Creek and Butchers Slough, respectively, and extending onto the adjacent former mill site. In doing so, approximately 3,200 square feet of bankside riparian habitat would be removed.

The vegetation along the Jolly Giant Creek / Butchers Slough watercourse is comprised of a mixture of ruderal species that are generally found along disturbed streams, including salt grass (Distichlis spicata), Himalayan blackberry (Rubus discolor), creeping buttercup (Ranunculus repens), coyote brush (Baccharis pilularis), pampas grass (Cortaderia jubata), and rushes (Juncus sp.). Given the dominance of invasive pioneering plant species and the near-absence of fish and wildlife species normally found along coastal streams of this size, habitat value of this streambank area can be considered to be severely degraded.

These impacts would be mitigated by the proposed construction of approximately 80,000 square feet of in-kind highly productive, perennial brackish-saltmarsh wetlands. The newly created replacement wetlands would provide increased habitat area for water-associated wildlife including shorebirds and wading birds. To ensure that the project does not result in the loss of wetland surface area or volume, the Commission attaches Special Condition Nos. 5 and 6. Special Condition No. 5 requires that the applicant construct the replacement wetlands as proposed within their coastal development permit application and subject to the conditions of this permit.

Depending upon its composition and the presence of hazardous materials associated with the former industrial activities at the site, the excavated material would either be deposited in shallow lifts on nearby upland portions of the mill site or in one of three

designated disposal sites located throughout the City. Therefore, no further loss of wetland surface area or volume would result from disposal of the excavated materials as proposed. To ensure that disposal proceeds in the proposed manner and does not result in more wetland fill, the Commission attaches Special Condition No. 6. The condition requires all excavated material to be placed on-site in upland locations within the South I Street Mill Reuse Project Site, or at one of the other established upland disposal sites proposed by the applicant, rather than in wetland locations.

b) Impacts to Rare Lyngbye's Sedge

Excavating the backwater alcoves and removal of the riprap and fencing would destroy several patches of Lyngbye's sedge (Carex lyngbyei). Although currently not listed as either a federal or state threatened or endangered specie, Lyngbye's sedge appears on the California Native Plant Society's "List 2," indicating plants that are rare, threatened or endangered in California but more common elsewhere. List 2 plants meet the definition of Section 1901 of the Native Plant Protection Act or Sections 2062 and 2067 of the California Endangered Species Act (CESA), signifying a plant species that would potentially qualify for listing as a rare or endangered species under the CESA (see Exhibit No. 9). To mitigate the project's impact on Lyngbye's sedge, the City developed procedures to salvage and transplant as many of the existing plots of Lyngbye's sedge as possible and reseed appropriate areas with locally collected seed stock. The California Department of Fish and Game has reviewed the proposed mitigation and has determined that the mitigation will adequately protect the sedge (see Exhibit No.10). Lyngbye's sedge is a persistent perennial herbaceous plant that is readily propagated and transplanted and is commonly used in wetlands revegetation projects. The City has incorporated these procedures into its plan for the wetland expansion and enhancement project. Special Condition No. 5 requires that the applicant implement the proposed project as conditioned. Therefore, as proposed and conditioned to protect populations of Lyngbye's sedge through transplanting and re-seeding, no significant adverse impacts to sensitive and/or riparian vegetation would result from the project.

c) Impacts to Fish Habitat

The subject wetland areas that would be dredged and/or filled within the Commission's jurisdiction consist of the brackish riparian areas within the roughly four- to ten-foot-wide Jolly Giant Creek / Butchers Slough watercourse. The watercourse provides cover and forage to a variety of fish species such as the *coho* salmon (Oncorhynchus kisutch), a federally-listed endangered species, listed as endangered federally, threatened in California, steelhead (Oncorhynchus mykiss) a state-listed threatened species, the federally-listed tidewater goby (Eucyclogobius newberryi), and coastal cutthroat trout (Oncorhynchus clarki).

Although a major objective of the proposed project is to greatly expand the fish-bearing watercourse, the project would result in short-term impacts to the banks of the

watercourse. The project involves excavating approximately 11,000 cubic yards of material from the edge of the creek and slough channel banks to restore approximately 44,300 square feet of shallow intertidal backwater alcove. However, if the project achieves its restoration and enhancement goals, overall wetland habitat values would be expanded and the short-term impacts of the excavation would be fully mitigated.

To ensure that the project achieves the wetland enhancement objectives for which the project is intended and thereby mitigates for the short-term loss of wetland habitat resulting from the proposed excavation work, the Commission attaches Special Condition Nos. 5 and 3. Special Condition No. 5 requires that the proposed wetland expansion and enhancement project be completed within six months of commencement of any development authorized by Coastal Development Permit No. 1-02-020. Special Condition No. 3 requires the applicant to submit a final monitoring plan for review and approval by the Executive Director prior to the issuance of the coastal development permit. The monitoring plan is required to outline a method for measuring and documenting the improvements in habitat value and diversity at the site, including wildlife and plant species and abundance, over the course of five years following project completion. Furthermore, Special Condition No. 3 requires the monitoring plan to include provisions for remediation to ensure that the goals and objectives of the wetland enhancement project are met.

In addition, to ensure that project construction activities do not cause downstream impacts to the lower reaches of Butchers Slough and Arcata Bay from stormwater runoff during the wet weather season when salmonid species migrate through the watercourse, the Commission attaches Special Condition No. 7 to limit construction activities to occur only between June 15th and October 15th.

Therefore, as the project as proposed and conditioned: (1) provides for expansion and enhancement of this fish-bearing watercourse adding approximately 44,300 square feet of new intertidal habitat for fish; and (2) limits construction operations to avoid disturbance of anadromous fish during migratory periods, the proposed project as conditioned would not have any significant adverse effects on fish species.

d) Water Quality

Potential adverse impacts to coastal waters could occur in the form of sedimentation or debris from project excavation and filling being allowed to enter coastal waters. Although the project description states that such impacts would be prevented and minimized by conducting the ground-disturbing work during the dry weather season and during low-tide periods when the stream channels would be de-watered, and by the use of unspecified water quality best management practices (BMPs), the application provides no further detail as to the referenced BMPs or precisely how the excavation would be performed relative to encroachment into the creek/slough.

To ensure that significant adverse impacts to water quality do not occur, the Commission attaches Special Condition Nos. 4, 6 and 7. Special Condition No. 4 requires Commission approval of an erosion control and runoff plan stipulating best management measures to be taken to ensure that water quality impacts to Butchers Slough and Arcata Bay do not result during wetlands construction. These measures include water quality management techniques to prevent stormwater from entering disturbed ground portions of the project site, prevent soil and other materials from being mobilized in stormwater, impound runoff to allow for settlement of any entrained sediments, and provide for the safe handling and disposal of hazardous materials to prevent them from entering and impacting coastal waters. Special Condition No. 6 requires that no construction materials, debris, or waste be placed or stored where it could be subject to entering the waters of Arcata Bay or Butchers Slough. In addition, Special Condition No. 6 requires all spoil material to be deposited in approved upland locations. Finally, Special Condition No. 7 requires that construction operations be limited to the dry season as proposed to ensure that the project does not create significant sedimentation impacts on downstream portions of Butchers Slough and Arcata Bay.

Coastal Act Section 30412 prevents the Commission from modifying, adopting conditions, or taking any action in conflict with any determination by the State Water Resources Control Board or any California Regional Water Quality Control Board in matters relating to water quality. Based on correspondence submitted as part of the environmental review for the City's coastal development permit, the North Coast Regional Water Quality Control Board (NCRWQCB) has indicated that since obtaining a Federal Clean Water Act (FCWA) Section 404 permit from the U.S. Army Corps of Engineers is indicated, FCWA Section 401 certification will similarly be required from the NCRWQCB (see Exhibit No. 9). Currently, only a preliminary work plan approval has been granted by the NCRWQCB. An application for a FCWA Sec. 401 certification is currently pending with the NCRWQCB, but has not yet been acted on. Further, as less than five acres of area is being disturbed, no Stormwater Pollution Prevention Plan (SWPPP) will be required for the project by the NCRWQCB. Should site excavation monitoring indicate that additional hazardous materials management or remediation is warranted, the City will need to modify the project to include the additional work. Since the NCRWQCB has yet to act on the Section 401 certification and will not be requiring a SWPPP, conditions and/or BMPs required by the Commission to minimize adverse impacts to water quality from the proposed wetlands restoration and enhancement activities within the Commission's jurisdictional area would not conflict with actions of the NCRWQCB pursuant to the requirements of Coastal Act Section 30412.

The Commission finds that the proposed wetland enhancement project is a permitted use under Section 30233 of the Coastal Act, and that as conditioned, all potential adverse impacts have been minimized to the maximum extent feasible.

(3) Alternatives Analysis

The third test set forth by Section 30233 is that the proposed dredge or fill project must have no feasible less environmentally damaging alternative. In this case, the Commission has considered the various alternatives presented by the applicant and determines that there is no feasible less environmentally damaging alternative to the project as conditioned by Special Conditions No. 1-8. A total of three possible alternatives to the proposed project have been identified including: (1) limiting wetlands restoration activities to the former mill's lumber decking areas and avoiding entry into the existing creek and slough channels; (2) eliminating the proposed log structures from the channel; and (3) the "no project" alternative.

a) Restoration of Adjoining Mill Site Only

As discussed previously, the subject watercourses provide habitat to a variety of federally and state listed threatened, endangered, or otherwise noteworthy of concern plant and animal species. One method to minimize impacts to these areas is to avoid all in-stream enhancement work and concentrate on the restoration of previously filled wetlands on the former lumber mill grounds. To accomplish this, a "leave strip" would need to be provided between the creek/slough and the areas on the mill site to be restored.

However, this alternative would eliminate the opportunity for increased habitat diversity and increased species abundance at the Arcata Marsh and Wildlife Sanctuary and within a degraded anadromous fish-bearing coastal stream. The adjoining floodplain restoration would provide greater wetland habitat. However, the wetlands created at the mill site would be deprived of a water source if not connected with Jolly Giant Creek / Butchers Slough. The created wetland would become a seasonal, off-channel backwater. This characteristic would greatly diminish its habitat contribution. Moreover, the direct benefits of enhancing the stream morphology and habitat characteristics of the existing channel would be forfeited. Lower Jolly Giant Creek / Butchers Slough would effectively remain a highly channelized, linear drainageway with degraded fish and wildlife habitat.

There is also no assurance that constructing the expanded floodplain with a "leave strip" would not result in greater impacts to coastal resources. Depending upon the structural integrity of the leave strip, the barrier could develop leaks, be undermined by stream water flow, or become saturated and collapse. Such a result could cause large quantities of turbid water and soil materials to be released into Jolly Giant Creek, Butchers Slough and Arcata Bay. Such a failure could have significant adverse impacts on the fish and wildlife habitat of these coastal waters. Therefore, limiting restoration to areas within former mill lumber decking area is not a feasible less environmentally damaging alternative.

b) Eliminating Log Structures

Potential impacts to the creek and slough streambed could also be avoided by eliminating the proposed placement of the log structures. The log structures are limbed and de-barked redwood trunks from land clearing projects donated to the City for use in restoration projects. The City proposes to place the log structures such that some of the structures may extend into areas currently occupied by the channel bank to be excavated.

Although the proposed placement of log structures would result in solid materials being placed into the area occupied by the existing stream channel and is therefore a form of fill, the presence of the logs would not necessarily cause impacts to the watercourse. Debris complexes are vital for proper functioning of biological components within a stream. The physical aspects of the river strongly influence the biological components. Logs and other fallen debris acts to trap leaves both whole and processed to be used by other insects. It is this function, as a retention device, that keeps the organic material from being transported downstream and hence not properly processed and used to its fullest extent. Logs and fallen trees also alter the flow of stream current which is important not only for fish but also for all the other organisms which fish rely on for forage. Organisms seek out areas of slower current for resting; without this refuge, energy is needlessly spent and survival is precarious. Fallen trees and logs also deflect current away from highly unstable streambanks. Woody debris also serves as food for those organisms that burrow into the tree to process the fibrous woody tissue.

Thus, while the proposed log structures affect coastal resources by displacing stream channel area, the presence of large woody debris is beneficial to the ecological balance of stream organisms. Increased cover, habitat variety, feeding stations for fish, and homes for fish and insects are examples of physical benefits. Biological benefits include increased forage production and species diversity providing more food in a variety of forms that fish need throughout their different life stages. Use of log structures are supported by the California Department of Fish and Game (CDFG) and other federal other federal resource agencies, including the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service, and the Pacific Fishery Management Council. Log structures are identified as a "basic structural material" and routinely recommended in CDFG's *California Salmonid Stream Habitat Restoration Manual.* Accordingly, prohibiting the placement of the proposed log structures would not be the least environmentally damaging feasible alternative.

c) No Project

The "no project" alternative would leave the lower reaches of Jolly Giant Creek and upper Butchers Slough in their current condition with no restoration or enhancement actions being taken. The "no project" alternative would eliminate the opportunity for increased habitat diversity and increased species abundance at the Arcata Marsh and Wildlife Sanctuary and within a degraded anadromous fish-bearing coastal stream. Therefore, the no project alternative is not a less environmentally damaging feasible

alternative as it would not accomplish the project objectives of enhancing wetland habitat values within City creeks and the AM& WS.

Based on the alternatives analysis above, the Commission concludes that the proposed: (1) excavation of old fill materials and re-contouring the western and northern streambanks of Jolly Giant Creek and Butchers Slough; (2) installing portions of ten large woody debris log structures; (3) removing of riprap and fencing; and (4) planting enhancement vegetation is the least environmentally damaging feasible alternative for protecting and enhancing wetland habitat values at the site and is consistent with Section 30233.

(4) Maintenance and Enhancement of Biological Productivity and Functional Capacity

The fourth general limitation set forth by Section 30233 is that any proposed dredging or filling in coastal wetlands must maintain and enhance the biological productivity and functional capacity of the habitat, where feasible.

The proposed expansion and enhancement of the watercourse would enhance the biological productivity and functional capacity of the watercourse habitat. Except in terms of being temporary impacts, the project would not result in a net decrease in wetland area, as the degraded wetland areas affected by the in-stream improvements would be replaced with potentially more productive wetland habitat from upland areas on the former mill site. The current simplified, linear stream configuration would be replaced by a meandering channel with numerous back-water areas where fish could hold and rest during migration. Re-contouring of the streambed would add vertical complexity to the watercourse, providing a variety of water depths where aquatic organisms could thrive and provide food to fish. The placement of the log structures would restore further complexity to the waterway, breaking up the laminar flow dynamics, allowing scour deeper pools to form, and providing additional shade and cover for fish.

Furthermore, as discussed above in the section of this finding on mitigation, the conditions of the permit would ensure that the project would not have significant adverse impacts on existing wetland habitats or on the water quality of Jolly Giant Creek, Butchers Slough, or Arcata Bay. Thus, the proposed project would maintain the diversity of wetland habitats at the site. For all of the above reasons, the proposed project will maintain and enhance the biological productivity and functional capacity of the wetlands consistent with the requirements of Section 30233 of the Coastal Act.

(5) Conclusion

The Commission thus finds that the proposed dredging/fill is for an allowable use, that there is no feasible less environmentally damaging alternative, that feasible mitigation is

required for potential impacts associated with the dredging and filling of coastal wetlands, and that the biological productivity and functional capacity of the wetland habitat affected by the dredging and filling will be maintained and enhanced. Therefore, the Commission finds that the proposed development, as conditioned, is consistent with Sections 30231 and 30233 of the Coastal Act.

D. Development within Coastal Rivers and Streams.

In addition to the general concerns associated with dredging, diking, and/or filling in or near coastal waters and wetlands, the Coastal Act addresses specific channelization activities within coastal rivers and streams. Section 30236 of the Coastal Act provides:

> *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.* (emphases added)

The above policy sets forth a number of different limitations on what alterations of coastal rivers and streams may be allowed. For analysis purposes, a particular development proposal must be shown to: (1) be for a necessary water supply project, certain specified flood control projects, or primarily for fish and wildlife habitat improvement; and (2) incorporate the best mitigation measures feasible.

1) Allowable Purpose

The City proposes the alteration of the Jolly Giant Creek / Butchers Slough watercourse as a development where the primary function is the improvement of fish and wildlife habitat. Bays, estuaries, and the lower reaches of mainstem streams are important habitats for many anadromous and intertidal fish species. These habitats provide holding areas for adults and rearing areas for juveniles. In many coastal waters, such as at the project site, these vital habitats have been reduced by the effects of land use, development, and natural events. Examples include damming and water diversions, diking, tide gating, channelization, bank armoring, and the removal of in-stream and riparian corridor vegetation. These activities usually reduce pool habitat and escape cover, and leave shallow, open channels with high water temperatures unsuitable for habitation by many fish species.

At the project site, Jolly Giant Creek is a Class II, second-order coastal stream that has been significantly dammed, culverted, and channelized along its approximately 3½-mile length over the last century. As a result much of the original streamside riparian canopy has been removed and major portions of the creek lie in closed culverts beneath Highway 101 and underneath downtown Arcata. Despite this history of impacts, the habitat

potential of the Jolly Giant Creek watershed has been recognized by numerous public resource agencies and non-government organizations alike that have fostered interest in restoring the creek. In 1985, the City significantly restored the creek's lower ¼-mile-long reach, Butchers Slough, from its former role as a logging mill pond to become a part of the adjoining Arcata Marsh and Wildlife Sanctuary (AM&WS). Similar efforts to restore or "daylight" previously culverted and channelized sections of the creek above the project site have been ongoing since the mid-1980's.

The restored portions of Butchers Slough within the AM&WS below the project site now consist of a series of large ponds and channels flanked by wide over-flow plains and surrounded by a well-developed and shaded riparian corridor composed of a predominant overstory of willows (Salix sp.) and red alder (Alnus rubra). However, along the common boundary between the Marsh Sanctuary and the former mill site the subject slough and creek reaches effectively remain narrow, armored, straight drainage channels with little hydrologic complexity and affording only a minimum of fish and wildlife habitat.

One of the most straightforward methods for improving degraded stream habitat is to return the watercourse as closely as practicable back to its pre-modified conditions. Depending upon the specific modifications that have been made, the creek or slough can be improved by a combination of techniques. Specific to the project site, appropriate techniques would include restoring over-bank and floodplain areas lost to channelization, returning hydrologic complexity to the stream by increasing channel sinuosity on artificially straightened reaches and creating off-channel refugia alcoves, replacing large wood vegetation cover elements within the stream channel and along the banks, and re-establishing the native riparian corridor vegetation on denuded reaches or those dominated by invasive, exotic plants.

The project proposes to conduct such work alongside and within a portion of the inner streambanks of Jolly Giant Creek and Butchers Slough as part of a stream habitat restoration project. The proposed project would make the above-listed enhancements and improvements to the Jolly Giant Creek / Butchers Slough watercourse along the reach where its well-defined riparian corridor transitions into a broader tidal slough, and would represent the next phase of the City's ongoing creek restoration work for this watershed.

To restore hydrologic complexity, the applicant proposes to widen and recontour the channel cross-sectional area of the creek/slough. Approximately 11,000 cubic yards of fill materials would be excavated from the western and northern banks to create 60- to 80-foot wide, gently sloped freshwater floodplain. Within the laid-back floodplain area, channel meanders and ten off-channel tidal back-water coves would be formed. These features would improve the improve fish and wildlife habitat by laterally increasing the amount of floodwater storage area, and adding vertical habitat complexity to the watercourse by increasing the channel roughness and providing a variety of water depths.

Prior to the excavation work, in order to form an enhanced floodplain and creek channel, the perimeter chain-link fencing and approximately 240 lineal feet of concrete debris riprap would be removed from the northern Butchers Slough stream bank. The riprap is being removed because the bank stabilizing it affords will no longer be needed for the proposed floodplain.

Following completion of the streambank floodplain excavation and channel re-contouring the restoration and enhancement work would entail the use of a bio-engineering component known as "large woody debris," involving the strategic placement of logs structures to provide greater in-channel diversity and cover. Ten sets of log cover structures would be installed. Each log structure consists of a two-foot diameter redwood log anchored by 5/8-inch-diameter stainless steel wire rope cable to a minimum three-foot-diameter boulder buried into the newly formed floodplain. This assembly results in a stable cover structure that will resist hydraulic forces during high stream flows with minimal dislocation or settling. The log structures would function to enhance the newly re-contoured backwater coves by providing cover. These habitat structures would be installed subject to the standards within the California Department of Fish and Game's (CDFG) *California Salmonid Stream Habitat Restoration Manual.*

The Commission finds that the proposed alterations of the Jolly Giant Creek / Butchers Slough watercourse described above constitute development where the primary function is the improvement of fish and wildlife habitat. Therefore, the proposed stream alteration project is consistent with the purposes for substantial alteration of streams allowed under Section 30236 of the Coastal Act.

2) Incorporation of Best Mitigation Measures Feasible

The Commission acknowledges that the proposed enhancement work would result in fish and wildlife habitat benefits consistent with Section 30236 of the Coastal Act. However, given the proximity of the ground disturbances to coastal waters, the Commission finds that certain additional mitigation measures are necessary to prevent the proposed streambank alteration work from causing unintended impacts to riparian habitat. Thus, as further discussed in Findings Section IV.C.(2) above, the Commission includes within Special Condition Nos. 4, 6, and 7 provisions that require the streamside excavation work be performed in conformance to an approved erosion control and runoff plan, subject to performance standards prohibiting the placement or discharge of materials into the adjoining waters, and restricted to the dry weather season.

The Commission finds that, as conditioned, the proposed stream alteration project incorporates the best mitigation measures feasible consistent with Coastal Act Section 30236.

E. Restoration of Marine Resources and Coastal Wetlands Where Feasible.

Coastal Act Section 30230 states as follows:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Coastal Act Section 30231 states as follows:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Coastal Act sections 30230 and 30231 require in part, that marine resources and coastal wetlands be maintained, enhanced, and restored where feasible. These policies call for restoration of coastal wetlands and marine resources where feasible. Restoration in the strictest sense generally refers to the reestablishment of wetland functions and characteristics that existed prior to human disturbance. The watercourse through the subject site was historically subject to the tidal influence of Humboldt Bay. The watercourse has been narrowed by the placement of fill since the turn of the 20th century. In addition, tidal action only extends part way up the portion of the watercourse on the subject site, perhaps as result of sedimentation of the watercourse and the gradual raising of its bottom elevation above elevations subject to tidal action. The subject site now functions as a combination of brackish-freshwater riparian wetlands with limited areas of salt marsh around the tidal fringe of Butchers Slough. The proposed project would involve widening the wetland along this entire segment of the watercourse, resulting in the expansion of both the brackish-freshwater riparian wetlands as well as the tidal saltmarsh wetlands.

According to information from the U.S. Fish and Wildlife Service (USFWS), in the Humboldt Bay region it is estimated that between 7,000 and 8,700 acres of salt marsh were present prior to human development. Since the mid-1800's, most of what was likely to have been historic salt marsh has been diked or filled and has been reduced to a total area of around 900 acres, a reduction of at least 87%. In general, restoring areas that have historically supported tidal salt marsh is preferable when the physical conditions of a site present such an opportunity. The USFWS for example, has indicated that

restoration of salt marsh habitats around the Bay is a high priority, as salt marsh restoration is important for the protection, enhancement, and restoration of native fish, wildlife, and plant communities, some of which are dependent on salt marsh for their existence.

Coastal Act sections 30230 and 30231 call for the restoration of coastal wetlands and marine resources "where feasible." Restoring the project site entirely to tidal salt marsh is not feasible due to the watercourse's minimal tidal connection to Humboldt Bay. In addition, restoring the entire length of Jolly Giant Creek that was historically subject to tidal action to tidal marsh would require extensive grading or removing existing dikes and tide gates which would result in potential flooding of adjacent private development and Highway 255. Therefore, the Commission finds that the proposed wetland enhancement project that does not involve restoring the entire site to salt marsh is consistent with Coastal Act Sections 30231 and 30230 because complete salt marsh restoration is not feasible. Nonetheless, the proposed project would enhance coastal wetlands and maintain and increase the biological productivity of the coastal wetlands consistent with Section 30230.

F. Public Access and Coastal Recreational Opportunities.

Coastal Act Sections 30210, 30211, and 30212 require the provision of maximum public access opportunities, with limited exceptions.

Coastal Act Section 30210 requires in applicable part that maximum public access and recreational opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Section 30211 requires in applicable part that development not interfere with the public's right of access to the sea where acquired through use (i.e., potential prescriptive rights or rights of implied dedication). Section 30212 requires in applicable part that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects, except in certain instances, such as when adequate access exists nearby or when the provision of public access would be inconsistent with public safety.

In applying Sections 30211 and 30212, the Commission is limited by the need to show that any denial of a permit application based on these sections, or any decision to grant a permit subject to special conditions requiring public access, is necessary to avoid or offset a project's adverse impact on existing or potential public access.

The project site is located near the northern shoreline of Arcata Bay. Within ¼ mile to the west, and adjacent to the east and south of the project area are public coastal access facilities, comprising the bayside trails, birding blinds, picnic areas, and interpretation facilities of the Arcata Marsh and Wildlife Sanctuary. This facility receives heavy use by a combination of hikers, birders, recreation boaters, and other coastal visitors. A network of coastal access trail run between lower H and I Street and back to the City's Marsh

Interpretive Center, meandering around and between the off-channel ponds and offering a variety of hiking, bird-watching, and other nature study oriented recreational amenities.

The project as designed and sited will not result in any significant interference with the public's right of access to the sea as granted or accrued. Access to coastal areas through the South I Street Mill Reuse Project site is not provided due to public safety concerns. Although public access may some day be provided along the north and west sides of Jolly Giant Creek as part of the reuse of the industrial site, such access is not proposed as part of the current project. Use of the AM&WS trails adjacent to the south and east of Jolly Giant Creek / Butchers Slough next to the restoration and enhancement site will not be significantly affected by the project. Although there may be temporary closures during grading work and removal of the fencing and riprap, these impacts are only of a temporary duration that will have no significant impact on the access. Therefore, the Commission finds that the proposed project as conditioned, which does not include new public access, is consistent with the public access policies of the Coastal Act.

G. State Waters.

Portions of the project site are in areas that are subject to the public trust. Therefore, to ensure that the applicant has the necessary authority to undertake all aspects of the project on these public lands, the Commission attaches Special Condition No. 1, which requires that the project be reviewed and where necessary approved by the State Lands Commission prior to the issuance of a permit.

H. Other Agency Approvals.

The project requires review and approval by the U.S. Army Corps of Engineers. Pursuant to the Federal Coastal Zone Management Act, any permit issued by a federal agency for activities that affect the coastal zone must be consistent with the coastal zone management program for that state. Under agreements between the Coastal Commission and the U.S. Army Corps of Engineers, the Corps will not issue a permit until the Coastal Commission approves a federal consistency certification for the project or approves a permit. As part of the Army Corps permit process, the City is required to undergo formal Federal Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Additionally, the project requires a Section 1600 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG). To ensure that the project ultimately approved by the CDFG and by the Corps in consultation with the USFWS and the NMFS is the same as the project authorized herein, the Commission attaches Special Condition Nos. 2 and 8 which require the City to submit to the Executive Director evidence of these agencies' approval of the project prior to the issuance of the permit and prior to the commencement of construction, respectively. The conditions require that any project changes resulting from these other agency approvals not be incorporated into the project until the applicant obtains any necessary amendments to this coastal development permit.

I. California Environmental Quality Act.

Section 13906 of the Commission's administrative regulation requires Coastal Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as modified by any conditions of approval, is consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are any feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. As discussed above, the proposed project has been conditioned to be consistent with the policies of the Coastal Act. The findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. Mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no other feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

EXHIBITS:

1. Regional Location Map
2. Vicinity Map
3. Jurisdiction Boundary Determination No. BD-20-2001
4. Project Area Site Map
5. Project Excavation Cross-sections
6. Project Revegetation Plan Map
7. Review Agency Correspondence

APPENDIX A

STANDARD CONDITIONS

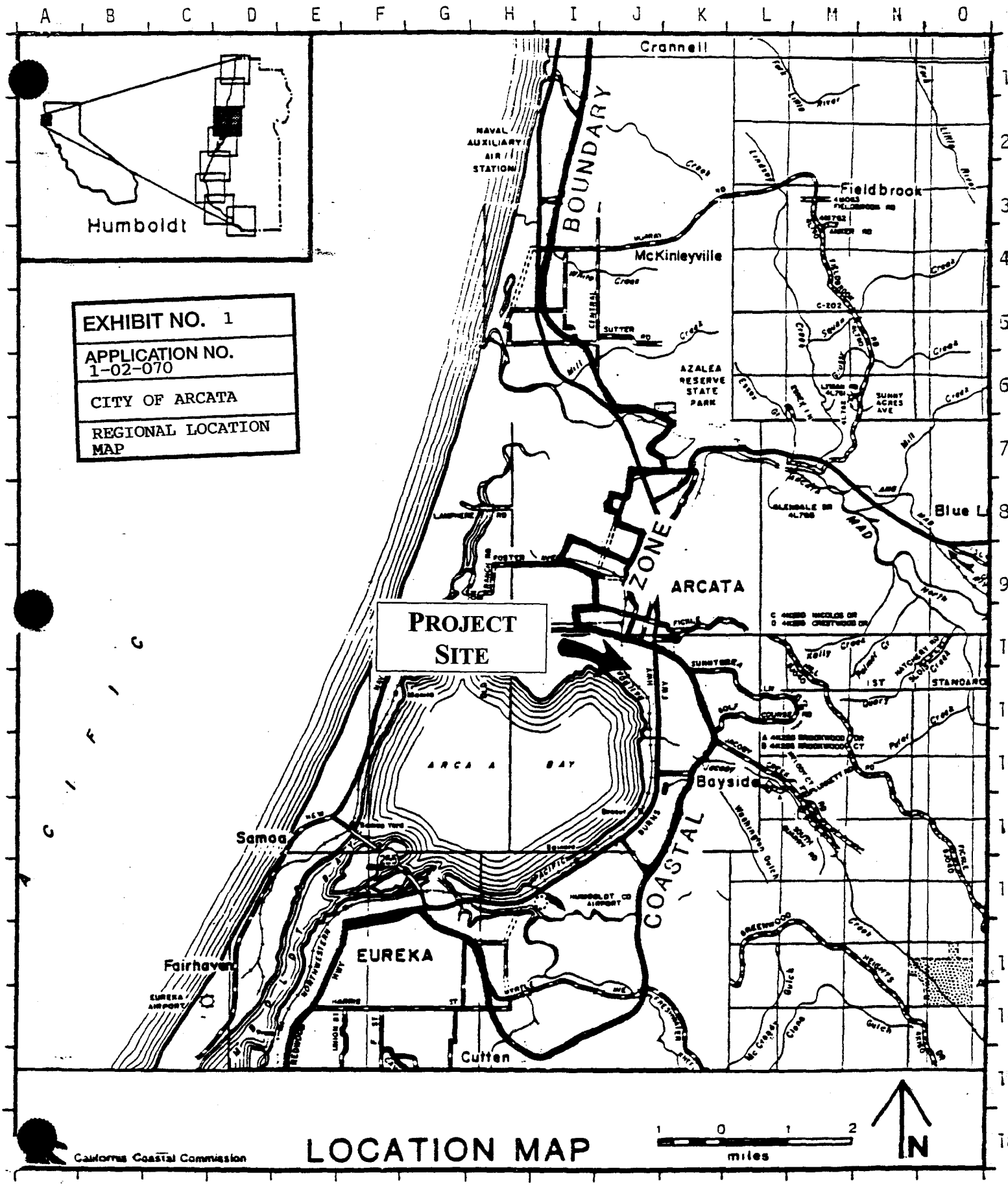
1. Notice of Receipt and Acknowledgement. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable amount of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director of the Commission.

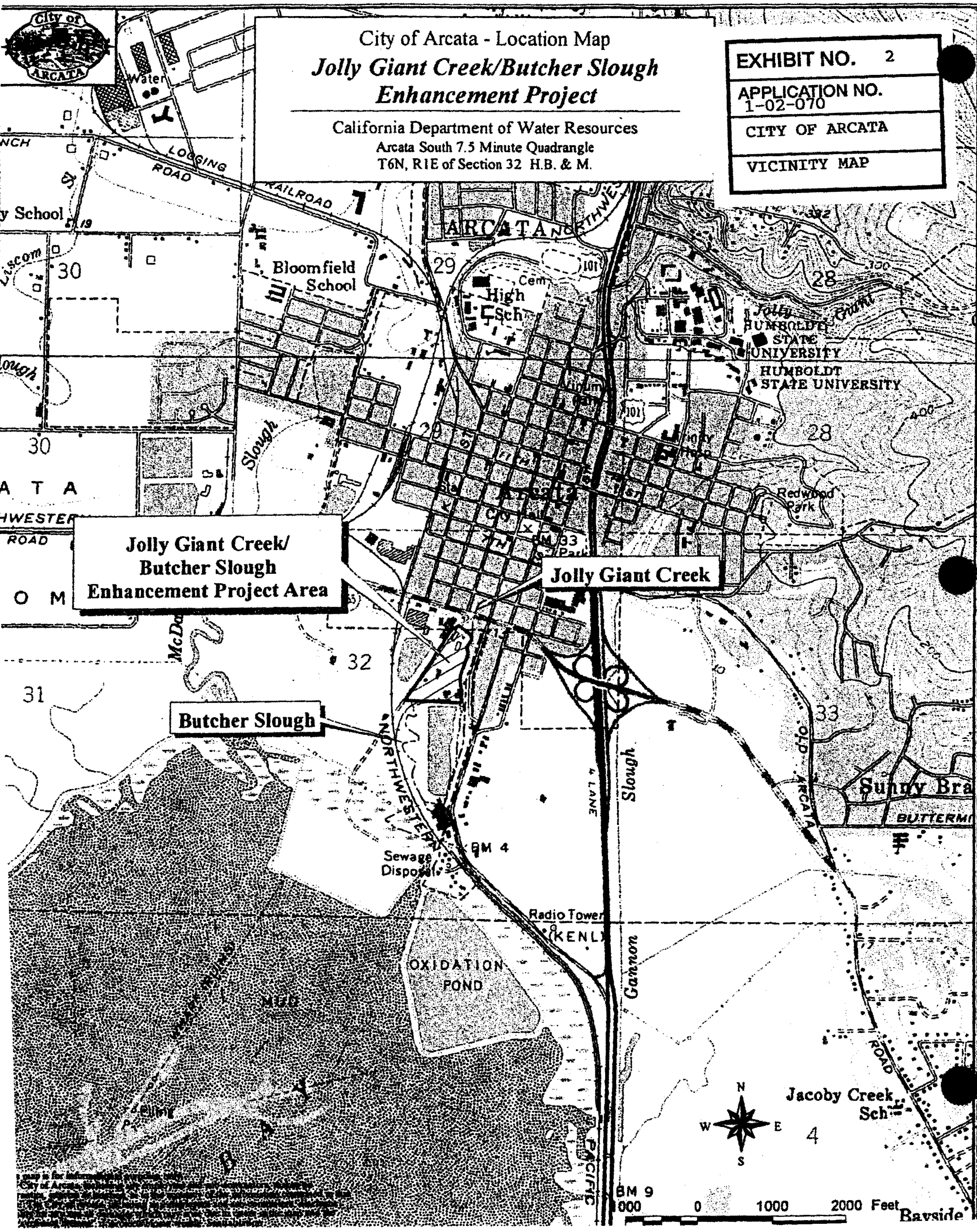
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.



County of Humboldt

Sheet 3 of 8


City of Arcata - Location Map
Jolly Giant Creek/Butcher Slough
Enhancement Project
California Department of Water Resources
Arcata South 7.5 Minute Quadrangle
T6N, R1E of Section 32 H.B. & M.
EXHIBIT NO. 2
APPLICATION NO.
1-02-070
CITY OF ARCATA
VICINITY MAP
City of ARCATA
Water
LOGGING ROAD
RAILROAD
School
Liscom
30
Bloomfield School
ARCATA
29
High Sch
Cem
101
28
HUMBOLDT STATE UNIVERSITY
HUMBOLDT STATE UNIVERSITY
Jolly Giant
Slough
Slough
A T A
Arcata
City Hall
BM 33
Park
Redwood Park
28
Jolly Giant Creek/
Butcher Slough
Enhancement Project Area
Jolly Giant Creek
ROAD
O M
32
31
Butcher Slough
NORTHWESTERN
4 LANE
Slough
33
OLD ARCATA ROAD
Sunny Bra
BUTTERM
BM 4
Sewage Disposal
Radio Tower
KENL
OXIDATION POND
MUD
Gannon
PACIFIC
Jacoby Creek Sch
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2000 Feet
Bayside

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
ICE AND TDD (415) 904-5200
(415) 904-5400

November 1, 2001

Dan Hauser, City Manager
City of Arcata
736 "F" Street
Arcata, Ca 95502

Subject: Coastal Zone Boundary Determination No. 20-2001, APNs 503-232-04, 13, & 16, City of Arcata, Humboldt County.

Dear Mr. Hauser:

You have requested that we provide you with a Coastal Zone Boundary Determination for Humboldt County Assessor Parcel Numbers (APNs) 503-232-04, 13, & 16.

Enclosed is a copy of a portion of the adopted Post-LCP Certification Permit and Appeal Jurisdiction for the City of Arcata, with the approximate location of APNs 503-232-04, 13, & 16indicated. See Exhibit 1. Also included is an Assessor Parcel Map exhibit that depicts the subject property with the post-certification permit and appeal jurisdiction boundary added. See Exhibit 2.

Based on the information provided and available in our office, Humboldt County APNs 503-232-04, 13, & 16 appear to be bisected by the post-certification permit jurisdiction boundary in the manner indicated on Exhibit No. 2. Any development that is proposed within the Coastal Commission's retained jurisdiction would require coastal development permit authorization from the Coastal Commission. The Coastal Commission's retained permit jurisdiction is based on the existence of tidelands, submerged lands and public trust lands. The information available indicates that the area in question appears to be located, in part, on tidelands or submerged lands. Based on this information the Coastal Commission is asserting jurisdiction over that portion of Humboldt County APNs 503-232-04, 13, & 16, which may be located on tidelands or submerged lands.

Development that is proposed within the permit jurisdiction of the City of Arcata would require coastal development permit authorization from the City. Any development that is approved by the City could be appealed to the Coastal Commission.

Please contact me at (415) 904-5335 if you have any questions regarding this determination.

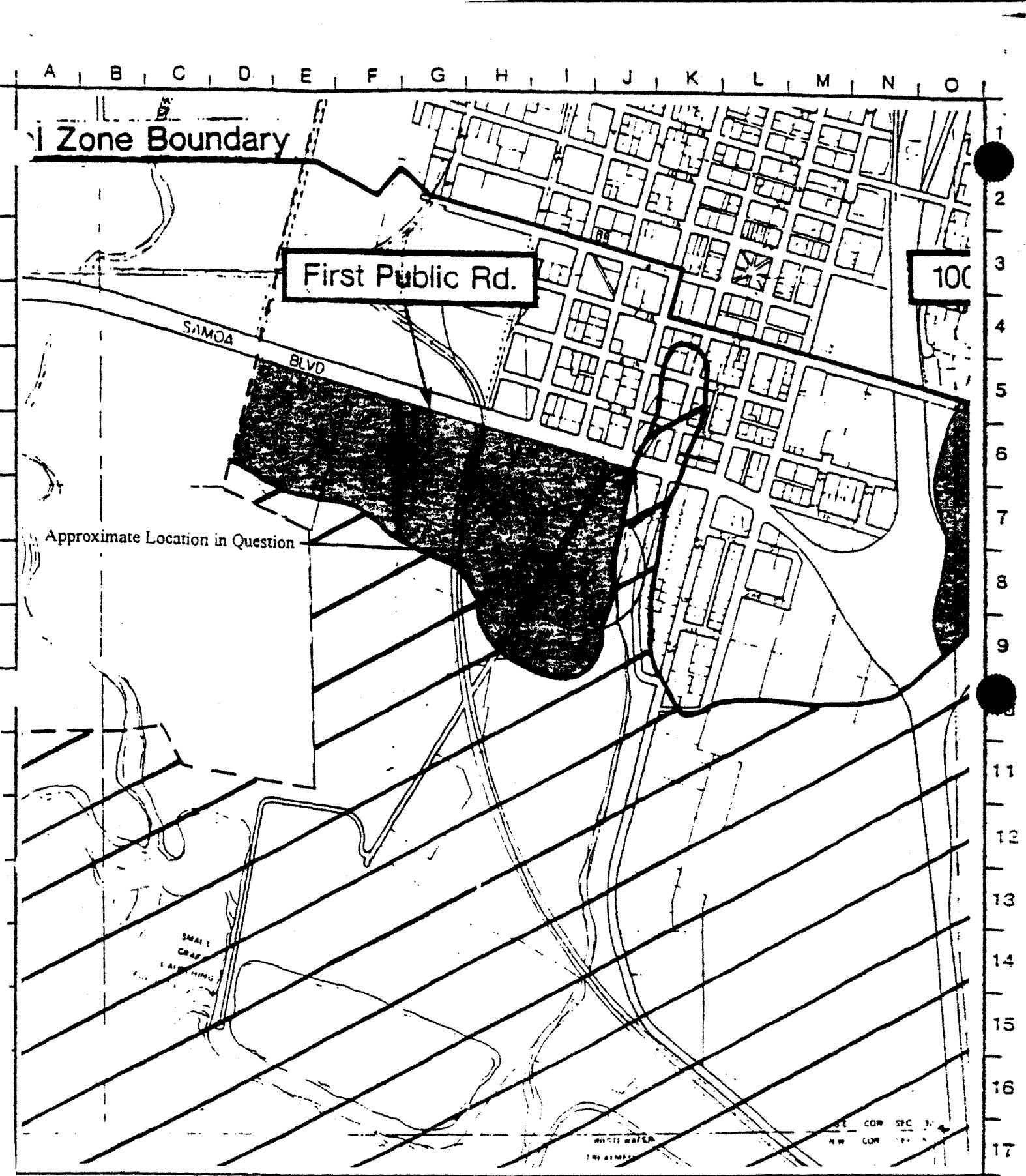
Sincerely,

Darryl Rance
GIS \ Mapping Program

Enclosures

Cc: Jim Baskin, CCC - NC
Bob Merrill, CCC - NC

EXHIBIT NO. 3
APPLICATION NO. 1-02-070
JURISDICTION BOUNDARY DETERMINA-
TION NO. BD-20-2001 (1 of 3)



BD No. 20-2001
APNs 503-232-04, 13, & 16
City of Arcata, Humboldt Co.

California Coastal Commission

Portion of Adopted Post-LCP
Permit & Appeal Jurisdiction Map
City of Arcata

1000 0 2000
feet

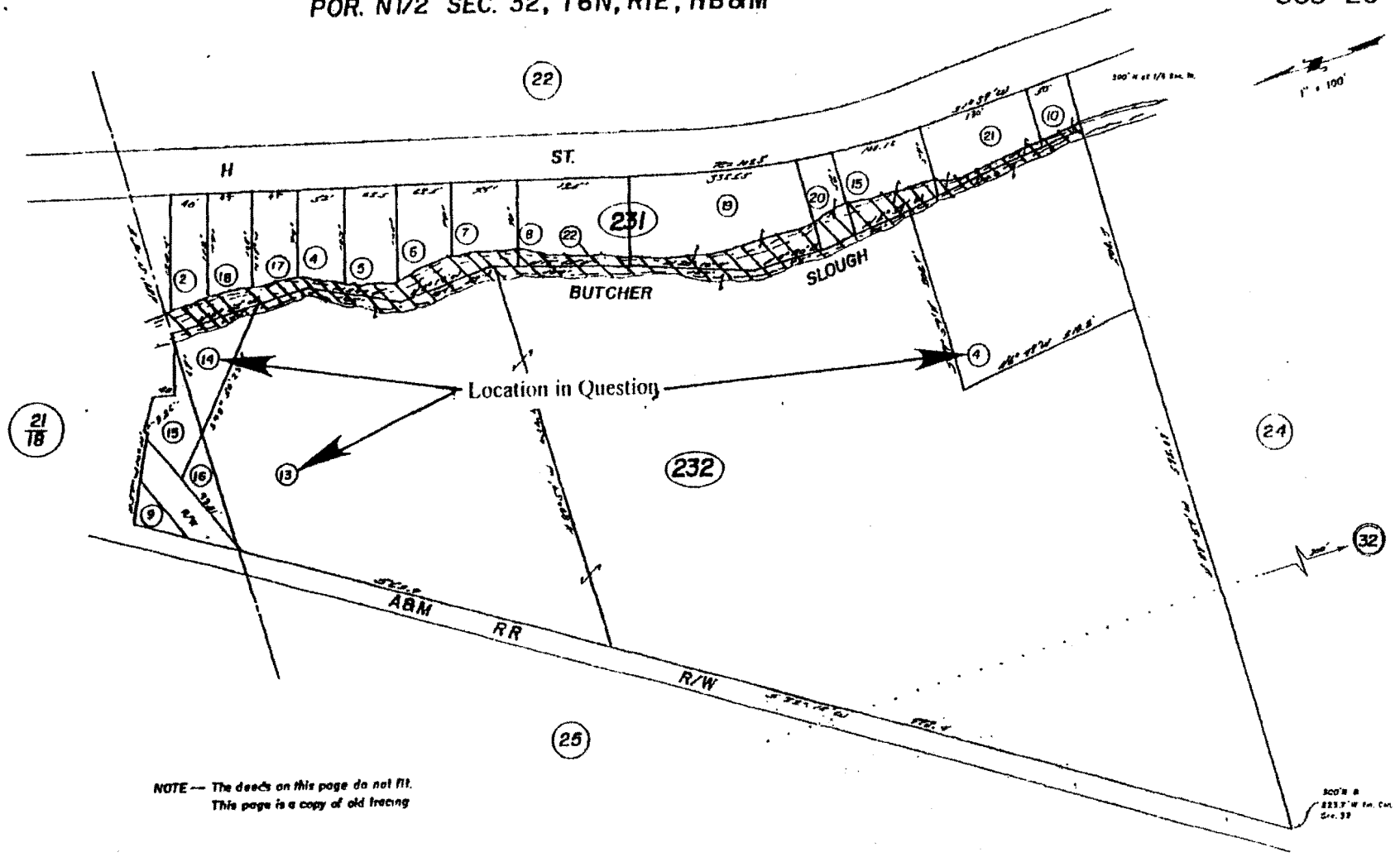
N

Humboldt, CA . 2000-2001 - 503-23, Sheet 1 of 1

Coastal Commission Jurisdiction

POR. N1/2 SEC. 32, T6N, R1E, HB&M

503-23



NOTE — The deeds on this page do not fit. This page is a copy of old tracing

Assessor's Maps Bk. 503-Pg. 23
County of Humboldt, Calif.

NOTE — Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

3 of 3

BD No. 20-2001
APNs 503-232-04, 13, & 16
City of Arcata, Humboldt Co.

EXHIBIT 2

This Exhibit has been prepared exclusi or
Humboldt County APNs 503-232-04. 13. & .6.

EXHIBIT NO. 4
APPLICATION NO. 1-02-070
CITY OF ARCATA
PROJECT AREA SITE MAP

City of Arcata - Project Area Map

Butcher Slough/Jolly Giant Creek Urban Stream Restoration Project

California Department of Water Resources

Arcata South 7.5 Minute Quadrangle

T6N, R1E of Section 32 H.B. & M.

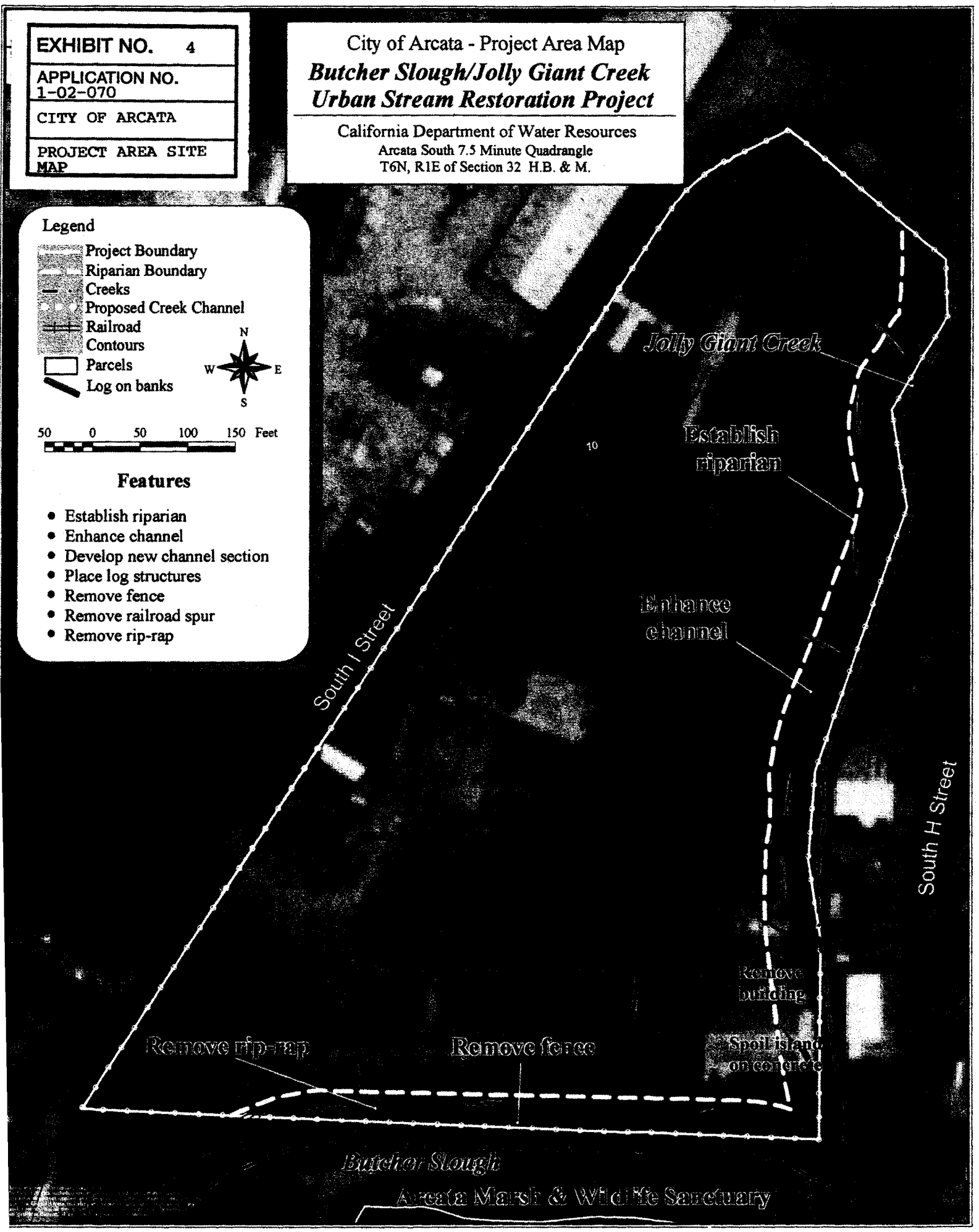


EXHIBIT NO. 5
APPLICATION NO. 1-02-070
CITY OF ARCATA PROJECT EXCAVATION
CROSS-SECTION (1 of 8)

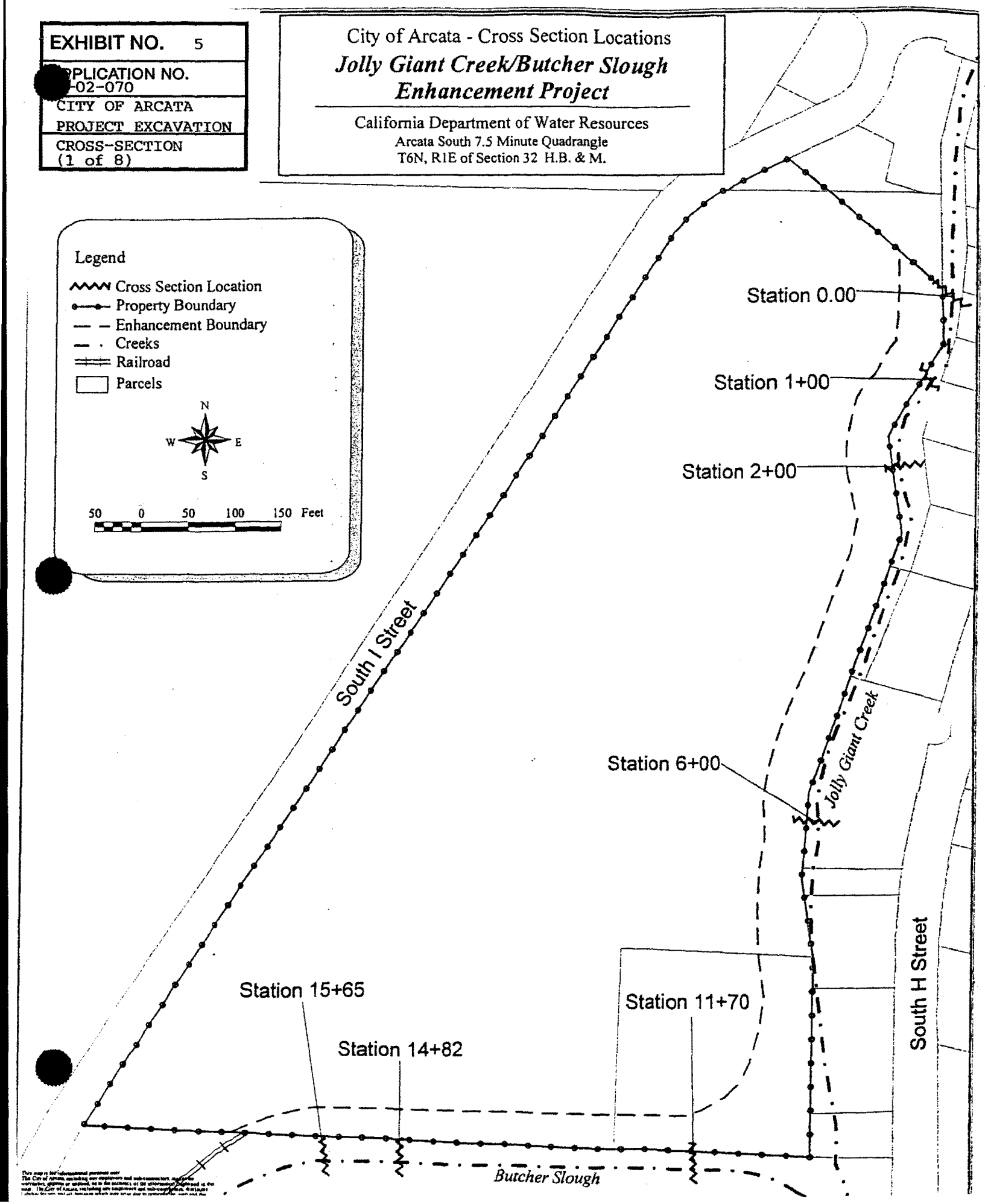
City of Arcata - Cross Section Locations

Jolly Giant Creek/Butcher Slough Enhancement Project

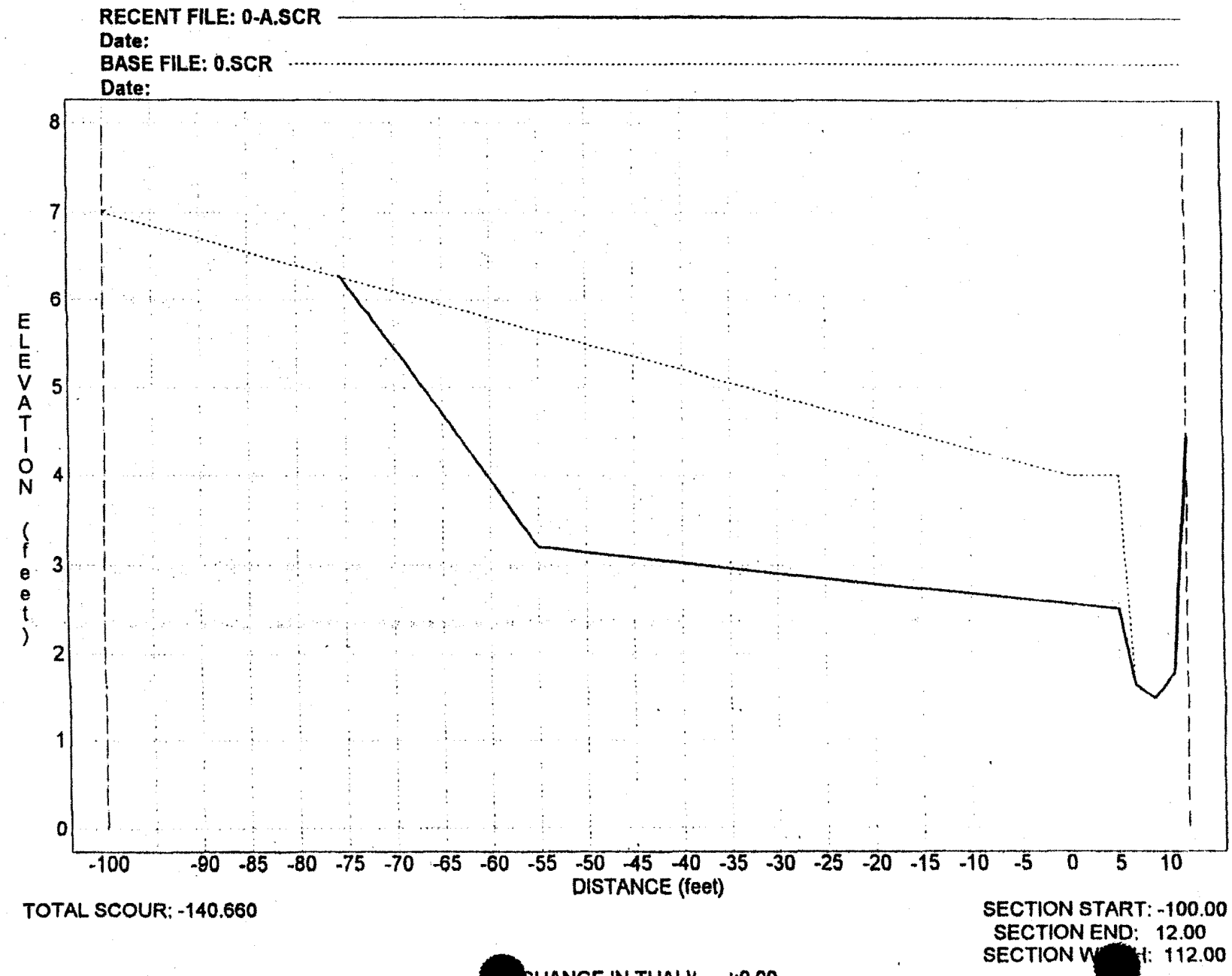
California Department of Water Resources

Arcata South 7.5 Minute Quadrangle

T6N, R1E of Section 32 H.B. & M.



Jolly Giant/Butchers Slough
Enhancement
Station 0+00
Cross Section



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SECTION W[illegible]H: 112.00

[illegible]CHANGE IN THALW[illegible]:0.00

olly Giant/Butch Slough
Enhancement
Station 1+00
Cross Section

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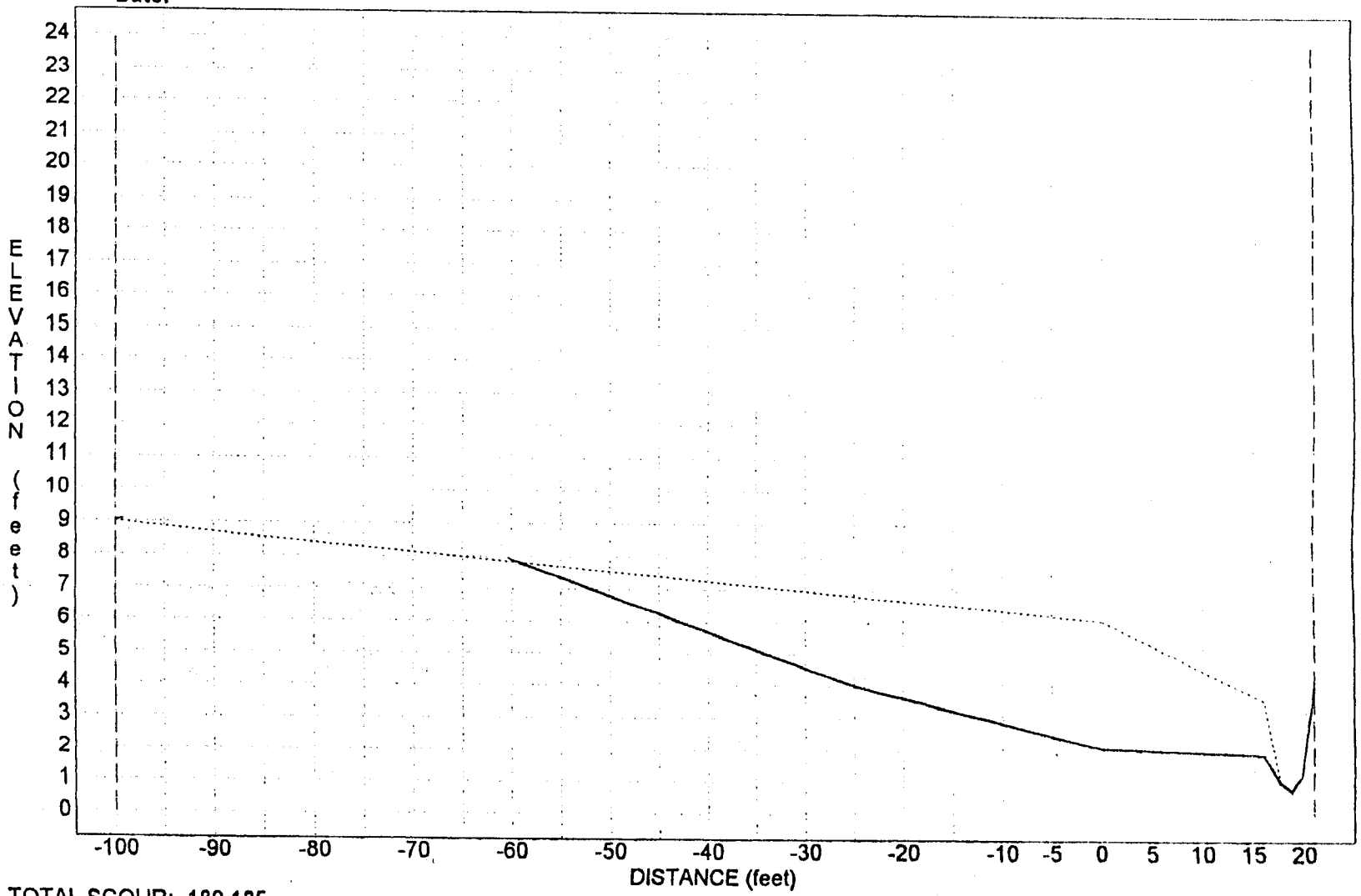
Date:
BASE FILE: BUT100.SCR
Date:



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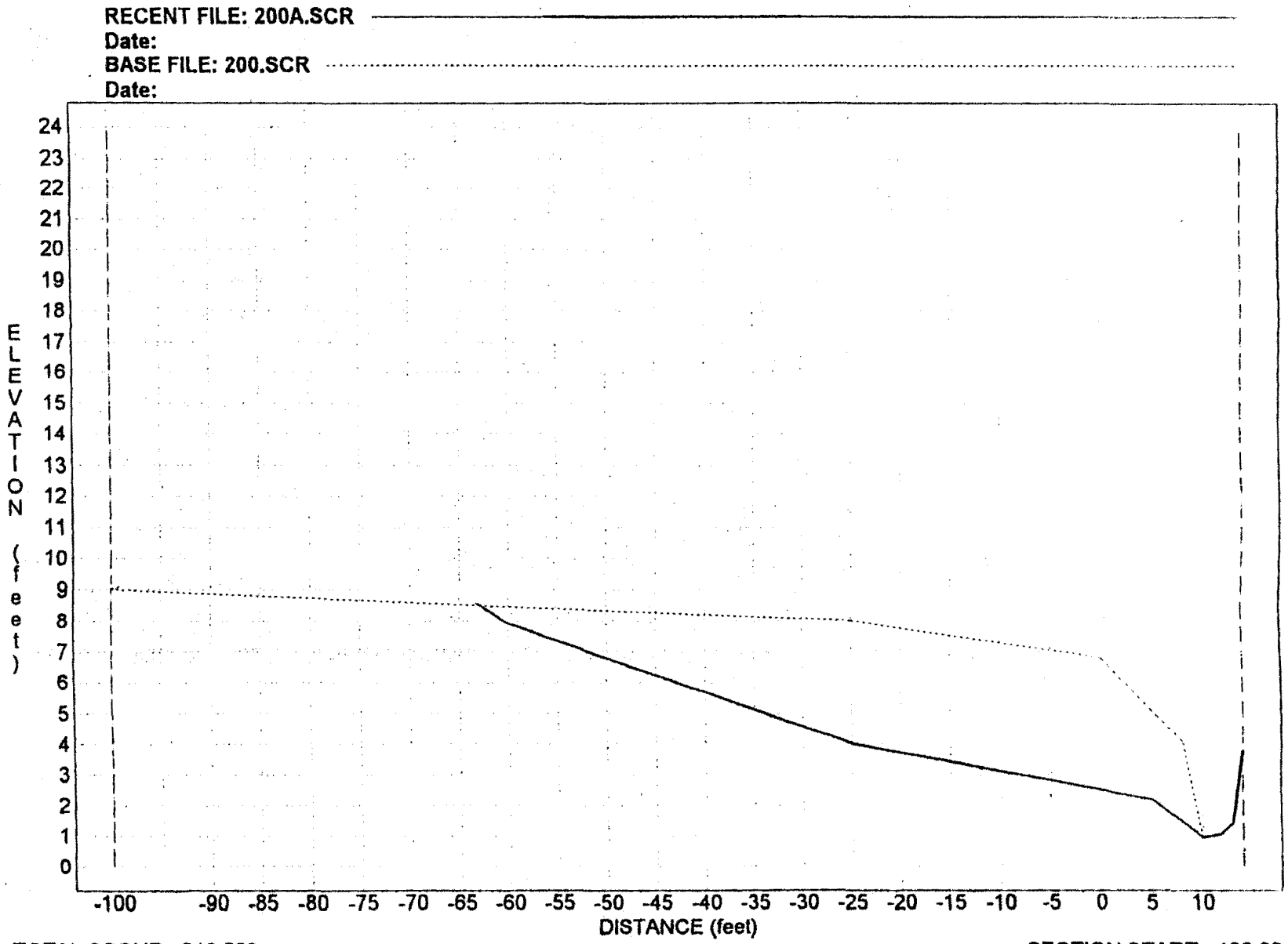
2 of 2

Jolly Giant/Butchers Slough
Enhancement
Station 2+00
Cross Section



TOTAL SCOUR: -213.503

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ly Giant/Butcher Slough Enhancem
Station 6+00
Cross Section

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Date:
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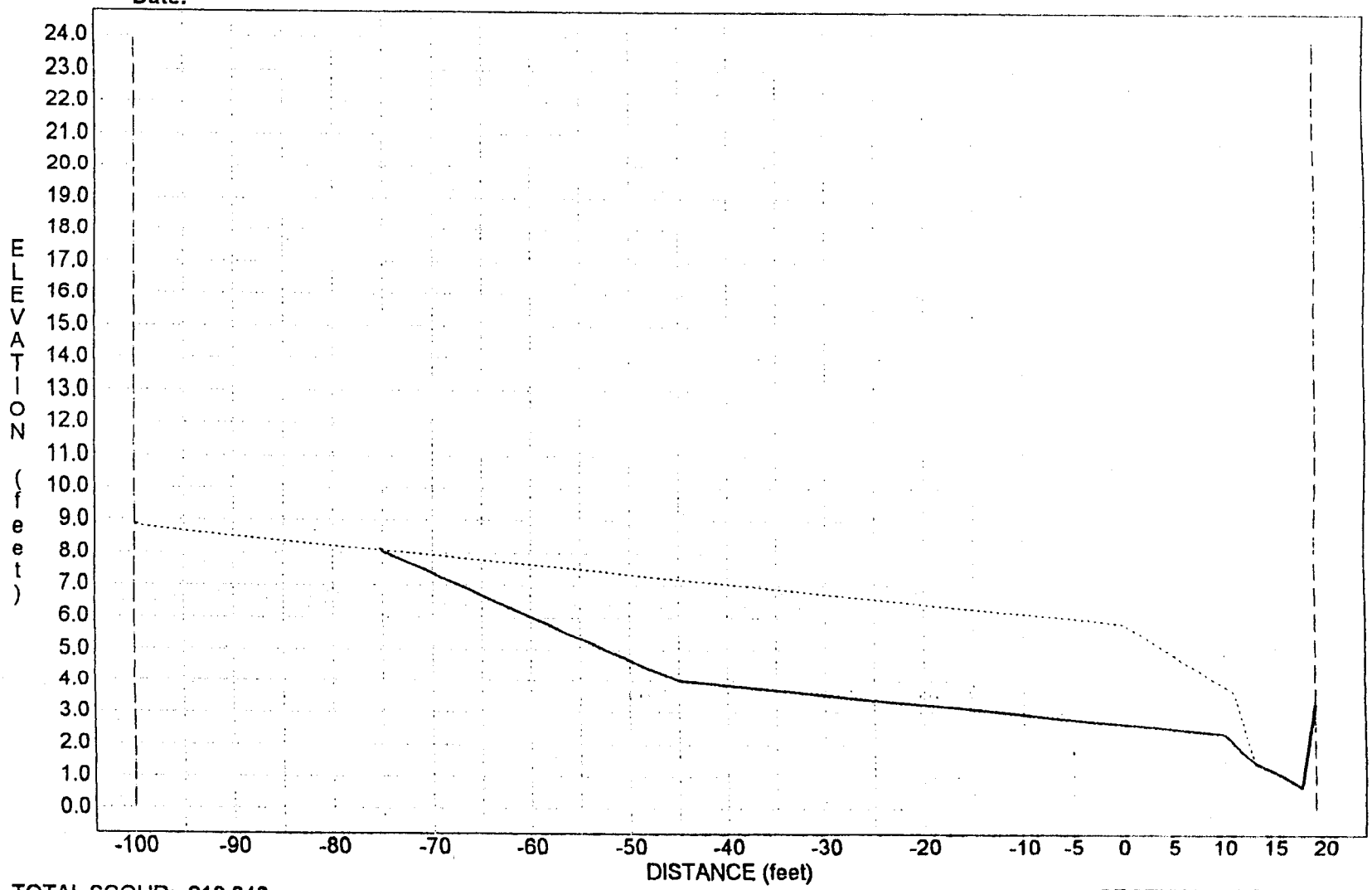
Date:



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SECTION END: 19.00
SECTION WIDTH: 119.00

CHANGE IN THALWEG:0.00

5 of 8

Jolly Giant/Butchers Slough
Enhancement
Station 11+70
Cross Section

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Date:
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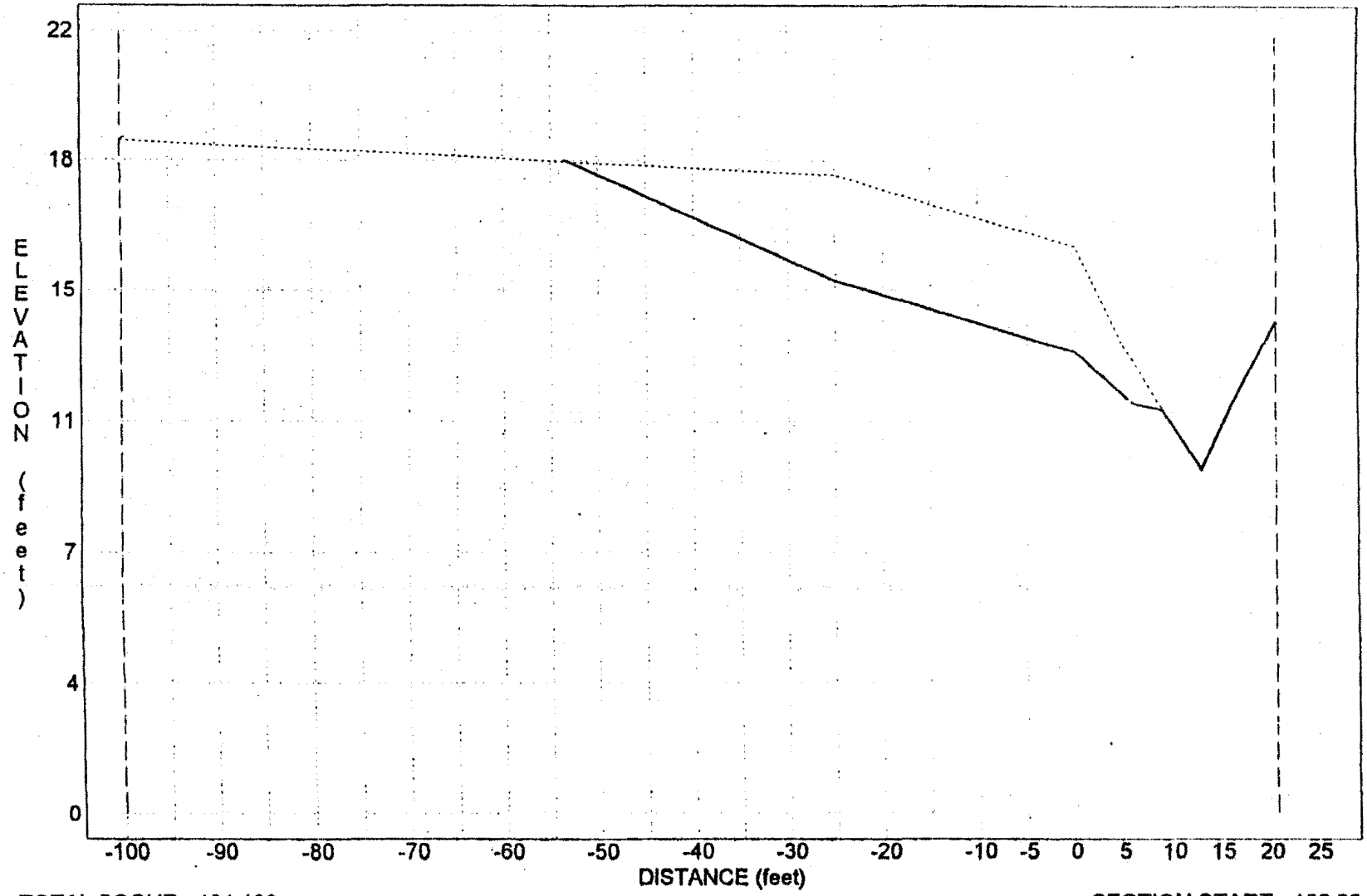
Date:



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SECTION WIDTH: 120.70

CHANGE IN THALW .0.00

olly Giant/Butch Slough
Enhancement
Station 14+82
Cross Section

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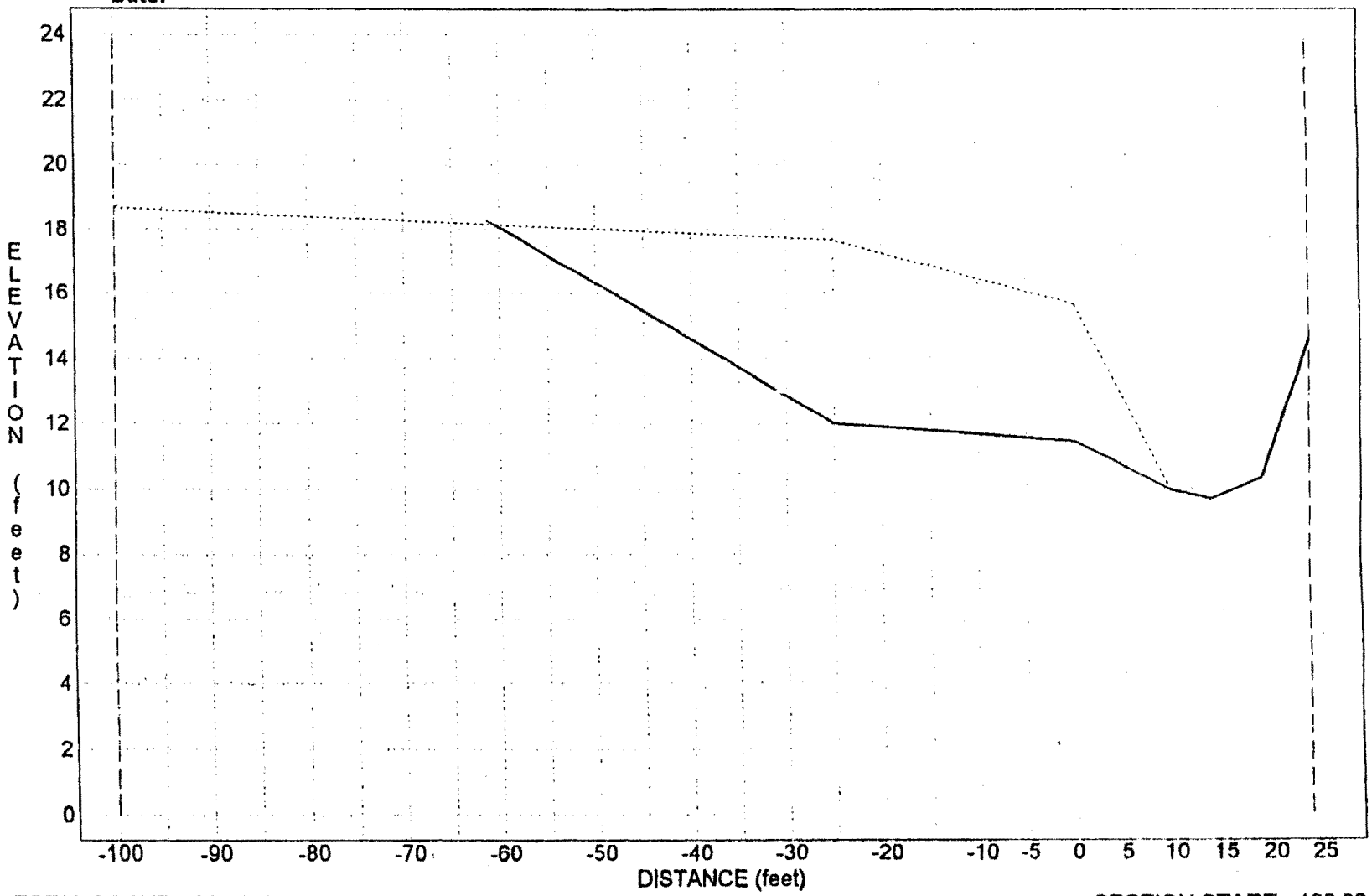
Date:



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Jolly Giant/Butchers Slough
Enhancement
Station 15+65
Cross Section

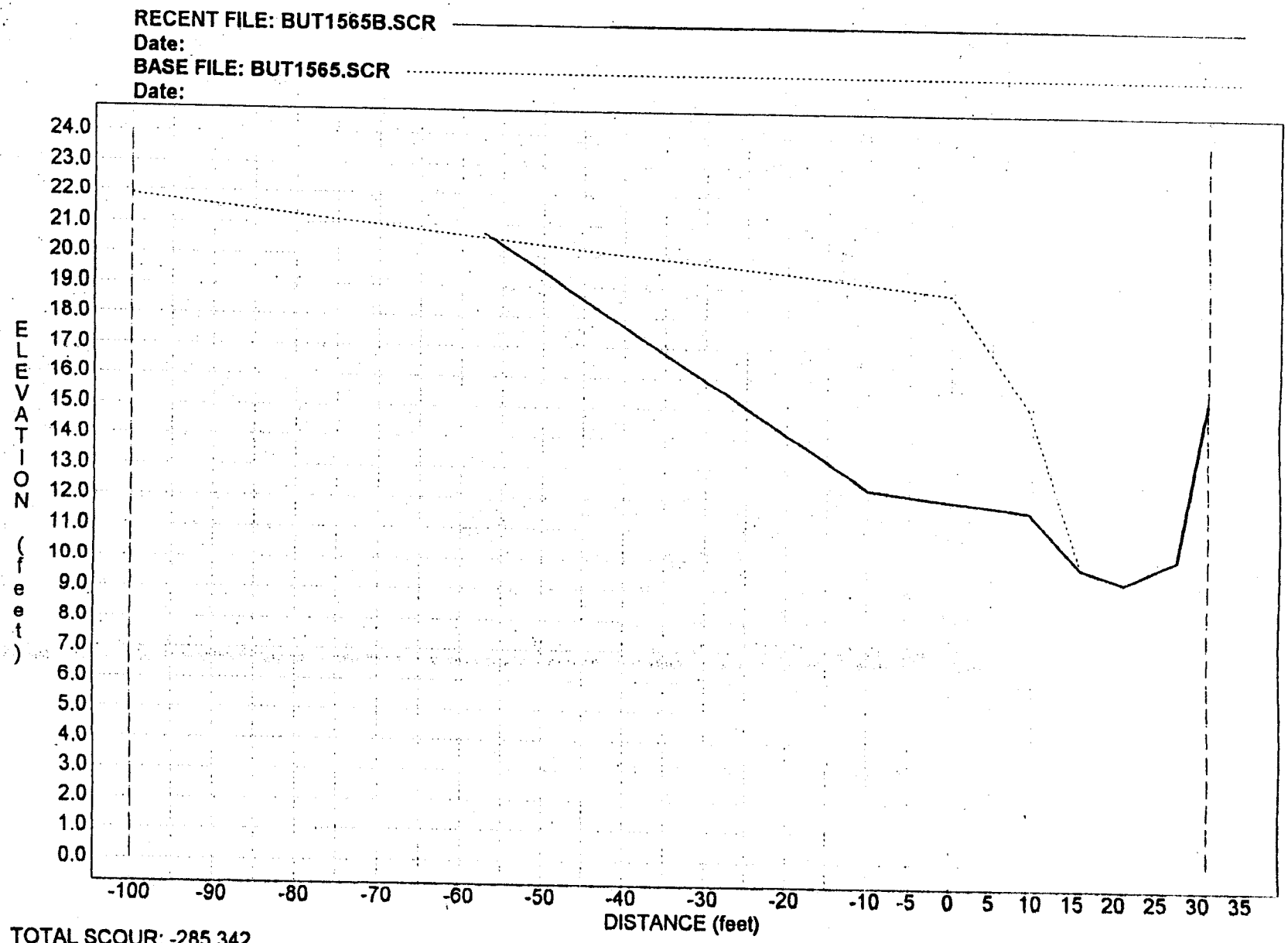

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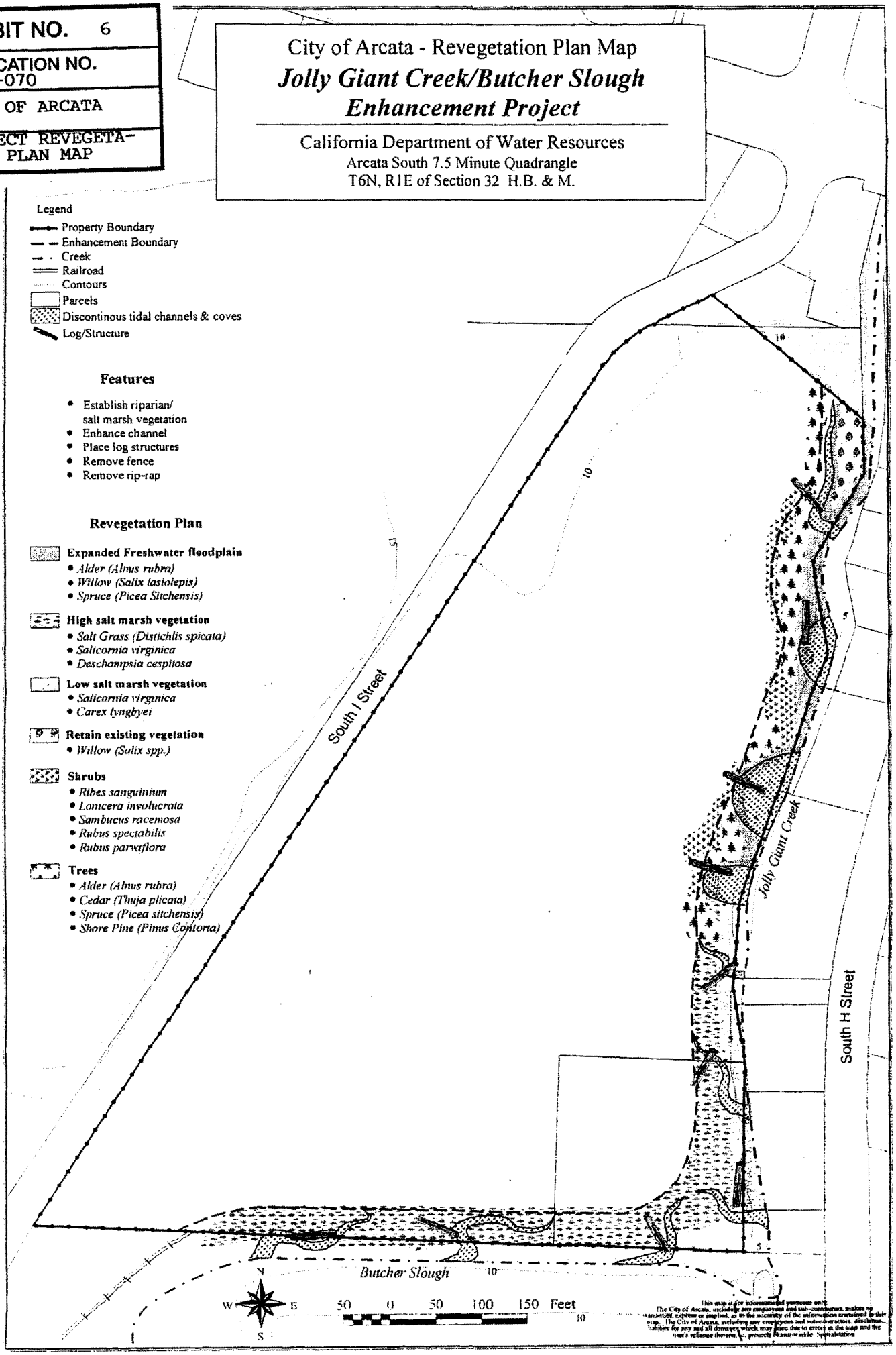
EXHIBIT NO. 6
APPLICATION NO. 1-02-070
CITY OF ARCATA
PROJECT REVEGETA-TION PLAN MAP

City of Arcata - Revegetation Plan Map

Jolly Giant Creek/Butcher Slough Enhancement Project

California Department of Water Resources
Arcata South 7.5 Minute Quadrangle
T6N, R1E of Section 32 H.B. & M.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
ARCATA FISH AND WILDLIFE OFFICE
1655 HEINDON ROAD
ARCATA, CA 95521
(707) 822-7201
FAX (707) 822-8411

EXHIBIT NO. 7
APPLICATION NO. 1-02-070
REVIEW AGENCY
CORRESPONDENCE (1 of 9)

April 4, 2002

Ms. Julie Neander
Environmental Services Department
City of Arcata
736 F Street
Arcata, California 95521

Subject: Restoration of Jolly Giant Creek/Butcher Slough channel and wetland vegetation

Dear Ms. Neander:

The U. S. Fish and Wildlife Service (Service) has reviewed preliminary plans for the City of Arcata's proposed restoration of the stream channel and associated vegetation along lower Jolly Giant Creek/Butcher Slough. The City's purpose for this project is the protection and restoration of existing and former wetlands on this site, while maintaining the contiguous existing wetland habitats in the adjacent Arcata Marsh and Wildlife Sanctuary. Service staff have participated with you and other City of Arcata staff in several site visits to discuss restoration priorities and options.

The Jolly Giant Creek/Butcher Slough channel was historically severely degraded through modifications, including stream channel relocation and wetland filling, to promote heavy industrial development of the site. Other property, adjacent to the area proposed for restoration and including former industrial sites constructed on upland fill material, will be considered for redevelopment into other compatible commercial uses in a future project. Much of your proposed project is located within former tidelands of Humboldt Bay, or in the lowest tidally influenced reaches of Jolly Giant Creek, and are adjacent to the City's Arcata Marsh and Wildlife Sanctuary. The City proposes to restore and enhance estuarine, salt marsh, riparian, and freshwater wetlands habitats within the project area. Each of these habitats have high values for fish and wildlife that frequent Humboldt Bay and in the past have been greatly reduced in area and value due to past development. In particular, the City proposes to enhance the estuary and riparian zone of lower Jolly Giant Creek which runs along the eastern and southern boundary of the former industrial site before it enters Humboldt Bay through Butcher Slough. Janes Creek may provide habitat for tidewater goby (*Eucyclogobius newberryi*), steelhead (*Oncorhynchus mykiss*), coho salmon (*O. kisutch*), and coastal cuttroat trout (*O. clarki*); the first three are listed as federally threatened or endangered species. Jolly Giant Creek provides an opportunity to restore and enhance estuary and brackish water habitat which is a vital component in the life history of these salmonids and the goby. Humboldt Bay is also a widely recognized area of importance for numerous waterfowl and shorebirds and

the proposed project will be of some value to these species as well.

The Service believes that the City's proposed restoration of stream and associated riparian/wetland functions within the lower Jolly Giant Creek/Butcher Slough area will be an important addition to fish and wildlife habitat in the Humboldt Bay watershed, and we are pleased to lend our support to this worthwhile and forward thinking project. We encourage the City to continue to work with our staff in this endeavor. Feel free to contact this office regarding ongoing technical support and endangered species consultation on habitat restoration issues. The Service recognizes the City as a leader in the protection and restoration of wetlands on Humboldt Bay and we encourage you to continue in this role.

If you have any questions or other need to reach us please contact staff biologist Ray Bosch or Greg Goldsmith at the letterhead address or telephone number . We look forward to the implementation of this restoration project.

Sincerely,

Acting for Bruce G. Halstead
Project Leader

cc: FWS, CNO, Sacramento, CA (Attn: John Engbring/Dave Paullin)
FWS, Humboldt Bay National Wildlife Refuge, Loleta (Attn: Eric Nelson)
NMFS, Arcata (Attn: Irma Lagomarsino)

249

State of California - The Resources Agency
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
Marine Region
20 Lower Ragsdale Drive, Suite #100
Monterey, CA 93940
(831) 649-2870

Flex your POWER

May 7, 2002

Ms. Julie Neander
City of Arcata
736 F St.
Arcata, CA 95521

Dear Ms. Neander:

The California Department of Fish and Game (Department) has reviewed the Draft Mitigated Negative Declaration for the Jolly Giant Creek/Butchers Slough Restoration project. The City of Arcata proposes to enhance Jolly Giant Creek/Butchers Slough by removing fill and developing a naturalized flood terrace with discontinuous channels and structures on the western bank of the creek and the northern bank of the slough. Additionally, salt marsh and upland riparian vegetation will be established. The project will enhance wetland habitat and provide additional habitat for the tidewater goby, a federally listed (i.e., endangered) species. Although the Department recognizes that this restoration project is valuable and generally encourages such projects, we have several comments and recommendations regarding this proposal. They are as follows:

- A wetland delineation of the site documented sedge in the creek/slough channel that resembles Lyngbye's sedge (*Carex lyngbyei*). This plant is a California Native Plant Society List 2 species. Based on existing scientific and factual information, the Department has concluded that this plant meets the definitions of Section 1901, Chapter 10, of the Native Plant Protection Act or Sections 2062 and 2067 (California Endangered Species Act) of the California Fish and Game Code, and therefore meets the criteria for consideration as a rare or endangered species per Section 15380(d) of the CEQA Guidelines. To determine if Lyngbye's sedge, or any other sensitive plant species, is present on the project site, the Department recommends that field surveys be conducted following the Department's "Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities" (Revised May 8, 2000). If any sensitive species are identified at the site, the Department would welcome the opportunity to work with the City to develop species-specific mitigation measures. These measures may include collection of seed prior to the start of any project activities which would then be used to re-establish the plant during the re-vegetation phase of the project.

3 of 9

- A Phase One Environmental Site Assessment of the project identified existing soil and groundwater contamination caused by leaking underground storage tanks and poor management practices during the operation of the industrial facility. Due to the existing soil contamination and the historical management practices mentioned in the report, the Department recommends that the City of Arcata perform a soil characterization along the creek/slough banks to help identify any soil contamination. If contamination is identified, then a more suitable disposal site will be necessary for these materials. Using contaminated soil for fill at another location is not recommended.

The Department appreciates the opportunity to review and comment on the draft Mitigated Negative Declaration. As always, Department personnel are available to discuss our concerns, comments, and recommendations in greater detail. To arrange for a discussion regarding Lyngbye's sedge, please contact Mr. Bob Williams, Environmental Scientist, Department of Fish and Game, 601 Locust St., Redding, CA 96001, telephone (530) 225-2365, and discussion regarding the Environmental Site Assessment, please contact Ms. Vicki Frey, Environmental Scientist, Department of Fish and Game, 619 2nd St., Eureka, CA. 95501, telephone (707) 445-7830.

Sincerely,

Robert N. Tasto, Supervisor
Project Review and Water Quality Program
Marine Region

cc: Ms. Vicki Frey
Department of Fish and Game
Eureka, California

Mr. Bob Williams
Department of Fish and Game
Redding, California

Ms. Emily Dean
North Coast Regional Water Quality Control Board
Santa Rosa, California

DMV

California Regional Water Quality Control Board

North Coast Region

William R. Massey, Chairman

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

Internet Address: http://www.swrcb.ca.gov/rwqcb1/
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
Phone: 1 (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

RECEIVED
MAY 20 2002
CITY OF ARCATA

May 17, 2002

FAX TO:
822 - 8018
ATTN:
DIANA COOPER

Julie Neander
City of Arcata
736 F Street
Arcata, CA 95521

Dear Ms. Neander:

Subject: Jolly Giant Creek/Butchers Slough Restoration at South I Street

File: Humboldt County, Misc.

I reviewed the Negative Declaration prepared for the Jolly Giant Creek/Butchers Slough Restoration Project and have a couple of comments on behalf of the Regional Water Board. First, since work will be conducted in the channel, you will need to get an Army Corps of Engineers permit, which triggers the need for Water Quality Certification, per Section 401 of the Clean Water Act. The application is available on our website at: http://www.swrcb.ca.gov/rwqcb1/Program_Information/wqwetcert.html.

The plan calls for the removal of a quantity of soil from the site, and designates several upland areas that could receive the clean soil. However, no mention was made of how the determination of "clean" would be made. Because of the past industrial activity at the site, and also because of the possibility that contamination from storm water discharged from the City could have deposited in the riparian zone during high flows, the soil could contain elevated concentrations of contaminants. The City should develop a soil sampling plan for testing the material slated for excavation for metals and Total Petroleum Hydrocarbons prior to selecting a disposal site.

Thank you for the opportunity to comment on this project. Please call me if you have any questions at (707) 570-3768.

Sincerely,

for Thomas B. Dunbar
Emily Dean
Water Resource Control Engineer

EMD:clh/EMDArcataJollyGiant

549

City of ARCATA

City Manager	Environmental Services	Police	Recreation
(707) 822-5953	822-8184	822-2428	822-7091
Community Development	Finance	Public Works	Transportation
822-5955	822-5951	822-5957	822-3775

736 F Street
Arcata, CA 95521

May 29, 2002

Robert N. Tasto, Supervisor
Project Review and Water Quality Program
Department of Fish and Game - Marine Region
20 Lower Ragsdale Drive, Suite #100
Monterey, CA 93940

Dear Mr. Tasto,

The City of Arcata has recieve your comments, dated May 7, 2002 regarding the City of Arcata Draft Mitigated Negative Declaration for the Jolly Giant Creek/Butchers Slough Restoration Project. The Department raised concerns regarding the project's potential negative impacts on *Carex lyngbyei* and the need for a soil characterization along the creek/slough banks.

The project will remove concrete, metal debris and other fill from the creek zone and outslope and widen the west and north bank for 1600 linear feet. The recontoured creek will create a more gradual slope to provide additional cross-sectional area for high flows. The recontoured banks will include discontinuous intertidal channels to provide back water areas that can be utilized by tide water goby and salmonids.

A healthy population of *Carex lyngbyei* is present in and along the banks of the creek and in an adjacent backwater area. The recontouring work will increase potential habitat for *Carex lyngbyei* in the long term. There are areas along the west bank of the creek where *Carex lyngbyei* will be destroyed when the bank is recontoured. The City will salvage as many *Carex lyngbyei* as possible that would otherwise be destroyed and keep it moist so that it can be replanted once the recontouring work is completed. The City will also be collecting seed from the existing population and reseed appropriate areas once the recontouring work is completed.

The City is working with SHN Consulting Engineers and Geologists, Inc. to develop and implement a soil screening protocol to identify any soil contamination for areas to be excavated and to identify areas on the adjacent site that are free of contamination that can take clean fill. A letter outlining the scope of work is attached. Please feel free to contact me @ 825-2151 should you have additional questions.

Sincerely,

Julie Neander
Resource Specialist

cc: Vicki Frey
Department of Fish and Game
Eureka, CA 95501

City of ARCATA

City Manager	Environmental Services	Police	Recreation
(707) 822-5953	822-8184	822-2428	822-7091
Community Development	Finance	Public Works	Transportation
822-5955	822-5951	822-5957	822-3775

736 F Street
Arcata, CA 95521

May 29, 2002

Emily Dean - Water Resource Control Engineer
California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

Dear Ms. Dean,

The City of Arcata has recieve your comments, dated May 17, 2002 regarding the City of Arcata Draft Mitigated Negative Declaration for the Jolly Giant Creek/Butchers Slough Restoration Project. The RWQCB raised concerns regarding the need for an Army Corps Permit and Water Quality Certification and the need for a soil characterization along the creek/slough banks.

The project will remove concrete, metal debris and other fill from the creek zone and outslope and widen the west and north bank for 1600 linear feet. The recontoured creek will create a more gradual slope to provide additional cross-sectional area for high flows. The recontoured banks will include discontinuous intertidal channels to provide back water areas that can be utilized by tide water goby and salmonids.

The City has applied for an Army Corp Permit and has included the application and supporting materials for a Water Quality Certification with this letter. The City is working with SHN Consulting Engineers and Geologists, Inc. to develop and implement a soil screening protocol to identify any soil contamination for areas to be excavated and to identify areas on the adjacent site that are free of contamination that can take clean fill. A letter outlining the scope of work is attached. Please feel free to contact me @ 825-2151 should you have additional questions.

Sincerely,

Julie Neander

Julie Neander
Resource Specialist

7 of 9

CONSULTING ENGINEERS & GEOLOGISTS, INC.
812 W. Wabash • Eureka, CA 95501-2138 • 707-441-8855 • Fax 707-441-8877 • shninfo@shn-engr.com

Reference: 002000.044

May 16, 2002

Julie Neander, Environmental Services
City of Arcata
736 F Street
Arcata, California 95521-6284

SUBJECT: WORK SCOPE AND COST ESTIMATE, PRE-WORK SOILS SAMPLING LOCATION ASSISTANCE, JOLLY GIANT CREEK/BUTCHER SLOUGH REVEGETATION, FORMER LITTLE LAKE INDUSTRIES SITE, 46 SOUTH "I" STREET

Dear Julie:

Per your request, I am submitting this projected scope of work and cost estimate for SHN to provide technical assistance to the City of Arcata. Technical assistance will focus on initial soil sampling for the proposed revegetation project along the Jolly Giant Creek/Butcher Slough corridor, on a portion of the property formerly known as the Little Lake Industries site, 46 South "I" Street (APN 503-232-13).

SHN will assist the City staff in preparation for screening level soil sampling of the proposed Creek re-routing at the subject location. Per my discussion with Julie Neander, I understand that the City wishes to have some documentation of the potential for regulated substances being in the soil to be excavated from the site. Additionally, I understand that City staff will conduct soil sampling of proposed project-area to document soil characteristics prior to on-site re-use or disposal at some off-site location. Given those parameters, I propose that the SHN scope of work include, but not be limited to the following, as authorized by you or other designated City staff (Steve Tyler, Mark Andre, Jill Geist):

1. Review level of soil sampling with City staff (budget and level of concern).
2. Select constituents of concern for laboratory analysis, based upon the findings of the SHN, June 12, 1998 and April 2, 1999 letters of review relative to a previous Phase 1 ESA (by others) for the subject site.
3. Assist City staff in the field location of, and technical rationale for, the proposed screening soil sampling sites along the corridor established by City staff.
4. Assist City Staff in the field location of potential on-site, temporary, stockpile areas suitable for additional soil testing or holding for future on-site uses.
5. Assist with responses to the sampling team's field questions.
6. Upon receipt of laboratory analysis, assist with the selection of samples to be analyzed for additional characterization, if required for clarification of the material final use or disposal options.

7. Review results of sample analyses and discuss with City Staff.
8. Perform other tasks that may be requested by your office.

I estimate that the cost for these services will range between $1,000 and $2,500, depending upon what final tasks may be requested by the City.

Thank you for the opportunity to assist your office on this project.

Sincerely,

SHN CONSULTING ENGINEERS & GEOLOGISTS, INC.

Martin E. Lay, P.E.
Project Manager
707/441-8855

MEL:med

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