CALIFORNIA COASTAL COMMISSION
NORTH COAST AREA
FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
(415) 904-5260

Th 3b

ADMINISTRATIVE PERMIT

Date: August 22, 1997
Permit Application No. **1-97-26**

APPLICANT: **CITY OF ARCATA**

PROJECT DESCRIPTION: Place 95 cubic yards of rock rip-rap along 500 lineal feet of the shoreline of Klopp Lake.

PROJECT LOCATION: Along the shoreline of Klopp Lake, a tidally-influenced water body located behind the bayward levee of the Arcata Marsh and Wildlife Area at the foot of I Street, Arcata, Humboldt County, APN 503-241-10.

EXECUTIVE DIRECTOR'S DETERMINATION: The findings for this determination, and for any special conditions, appear on subsequent pages.

NOTE: P.R.C. Section 30624 provides that this permit shall not become effective until it is reported to the Commission at its next meeting. If one-third or more of the appointed membership of the Commission so request, the application will be removed from the administrative calendar and set for public hearing at a subsequent Commission meeting. Our office will notify you if such removal occurs.

This permit will be reported to the Commission at the following time and place:

Date: Thursday, September 11, 1997 **Tel.No. (707) 442-6441**
Time: 9:00 a.m., Item No. Th 3b
Place: Eureka Inn, 7th & "F" Streets, Eureka, CA

IMPORTANT - Before you may proceed with development, the following must occur:

Pursuant to 14 Cal. Admin. Code Sections 13150(b) and 13158, you must sign the enclosed duplicate copy acknowledging the permit's receipt and accepting its contents, including all conditions, and return it to our office. Following the Commission's meeting, and once we have received the signed acknowledgment and evidence of compliance with all special conditions, we will send you a Notice of Administrative Permit Effectiveness.

BEFORE YOU CAN OBTAIN ANY LOCAL PERMITS AND PROCEED WITH DEVELOPMENT, YOU MUST HAVE RECEIVED BOTH YOUR ADMINISTRATIVE PERMIT AND THE NOTICE OF PERMIT EFFECTIVENESS FROM THIS OFFICE.

PETER DOUGLAS
Executive Director

By: ROBERT S. MERRILL
Title: Coastal Planner

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. 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 this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

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

5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.

6. 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.

7. 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.

EXECUTIVE DIRECTOR'S DETERMINATION (continued):

The Executive Director hereby determines that the proposed development is a category of development which, pursuant to PRC Section 30624, qualifies for approval by the Executive Director through the issuance of an administrative permit. Subject to Standard and Special Conditions as attached, said development is in conformity with the provisions of Chapter 3 of the Coastal Act of 1976, will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3, and will not have any significant impacts on the environment within the meaning of the California Environmental Quality Act. If located between the nearest public road and the sea, this development is in conformity with the public access and public recreation policies of Chapter 3.

FINDINGS FOR EXECUTIVE DIRECTOR'S DETERMINATION:

1. Project and Site Description.

The applicant proposes to repair portions of the eroding shoreline banks of Klopp Lake, a tidally-influenced water body located behind the bayward levee of the Aracta Marsh and Wildlife area adjacent to Arcata Bay. The site is located off of I street, in Arcata (see Exhibits 1-3).

The banks would be repaired by placing a total of approximately 95 cubic yards of 12 to 14-inch diameter rock rip-rap along a total of approximately 500 feet of shoreline (see Exhibits 3 and 4). The affected areas include a 350-foot-long portion of the western shoreline of the lake and a 150-foot-long portion of the northeast shoreline of the lake. The rock would be placed in areas where the shoreline has eroded away by a distance of two to three feet. The face of the rip-rap to be placed on the banks would encroach no further into the lake than where the banks extended prior to the erosion.

2. Fill in Coastal Waters and Protection of Marine Resources.

The Coastal Act defines fill as including "earth or any other substance or material ... placed in a submerged area." The proposed project includes the placement of fill in coastal waters in the form of rip rap. The rip rap will cover a total of approximately 2,000 square feet.

Sections 30233 and 30235 of the Coastal Act address the placement of fill within coastal waters and the construction of seawalls and similar shoreline construction. Section 30233(a) 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:
>
> (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
>
> (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
>
> (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

Section 30235 provides, in applicable part:

> Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local sand supply.

The above policies set forth a number of different limitations on what shoreline protection fill projects may be allowed in coastal waters. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

a. that the purpose of the fill is either for one of eight uses allowed under Section 30233, to serve coastal dependent uses, or to protect existing structures or public beaches in danger from erosion; and

b. that the project is designed to eliminate or mitigate adverse impacts on local sand supply; and

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

d. that adequate mitigation measures to minimize the adverse impacts of the proposed project on habitat values have been provided.

Purpose of Shoreline Revetment Fill

The proposed project meets the first limitation regarding project purpose as the purpose of the project is to protect an existing structure from erosion, consistent with Section 30235. The revetment is needed to protect existing dikes that separate the various ponded areas that comprise the Arcata Marsh and Wildlife area, as well as the public access pathways that run along the

tops of the dikes. In addition, the fill qualifies under Section 30233(a)(5) as an allowable purpose for fill as the rip-rap is for an incidental public service purpose. The rip-rap is incidental to the purpose of maintaining a public wildlife refuge.

Protection of Sand Supply

The project also meets Section 30235 criteria regarding the protection of local shoreline sand supply because there is no evidence the project will have any effect on existing local shoreline sand supplies. Klopp Lake is separated from Arcata Bay by a dike. There are no beaches on the shoreline of Klopp Lake, and the placement of rip-rap on the inboard side of the dikes that surround the lake will not affect the movement of sand within the Bay outboard of the dikes.

Alternatives

No feasible alternatives to the proposed project resulting in less environmental damage have been identified. The "no project" alternative would eventually result in further deterioration of the banks or dikes that surround Klopp Lake. Without remedial measures, the continued erosion of the lake banks would eventually result in breaching of the dikes and the cutting off of the public access trails provided on top of the dikes. In addition, the adjoining ponded areas would be compromised by the introduction of water of a different salinity level than exists in the ponds currently, changing habitat values. Therefore, the no project alternative is neither feasible nor a less environmentally damaging alternative as it would not accomplish the project objectives of protecting the existing site development from erosion.

Armoring the eroding bank with a concrete or pile-driven retaining wall or bulkhead is another alternative that could be considered. Such a revetment could reduce the encroachment into the water for shoreline protection purposes. However, constructing such a wall or bulkhead could cost several times the estimated project cost and would likely only reduce the total amount of fill by less than 1,000 square feet. Therefore, a bulkhead or retaining wall is not a feasible less environmentally damaging alternative to the proposed rip rap revetment.

The damaged eroded banks could be restored by replacing the eroded bank material with new earthen fill. However, this alternative would likely result in more fill than a rock rip-rap revetment as the earthen fill could not be placed at as steep a slope as a rock rip-rap revetment and maintain its integrity. In addition, the initial erosion of the banks demonstrates that this method will not provide sufficient long term protection for these portions of the banks. Thus, repairing the eroded banks with earthen fill would not be the least environmentally damaging feasible alternative in comparision with the proposed project.

No other feasible alternatives for protecting the existing structure have been identified that would involve less fill and less disruption to the lake edge environment.

Adequate Mitigation Measures

The fourth test set forth by Sections 30233 and 30235 is that adequate mitigation for the adverse impacts of the proposed project on habitat values must be provided. Significant adverse impacts often associated with the placement of fill include the coverage of bottom habitat and the loss of water surface area and volume.

The areas to receive the fill consist of mostly unvegetated lake bank composed of silty and clayey sands and gravel. The areas proposed to be filled are areas that have been rapidly eroding, and were upland areas until very recently. Thus, the areas proposed to be filled contain little habitat value. In addition, the applicant has submitted a letter from Biology Professor Milton Boyd of Humboldt State University which indicates that placing the rock rip-rap material will enhance habitat values (see Exhibit 5). Dr. Boyd indicates that he has discovered that the underside of some of the existing rocks in the lake support certain fauna that are in short supply in Humboldt and Arcata Bays, such as the compound ascidian Botrylloides sp., the solitary ascidian Mogula manhattensis, the sponge Haliclona sp. and the native oyster Ostrea lurida. Dr. Boyd indicates that placing rock along the base of the banks as proposed by the City would provide a suitable substrate for the growth of these and other species. Previous studies have shown that the Humboldt and Arcata Bays have an over abundance of soft bottom or earthen habitat relative to hardscape habitat such as that which would be provided by the proposed rock rip-rap revetment. Thus, the proposed project will not have a significant adverse impact on habitat at the fill site and will serve to increase biodiversity and the overall marine habitat values in the surrounding area.

The proposed fill will replace old fill that had been placed many years ago to create the perimeter dikes of the lake, and the total fill area is relatively small, less than 2,000 square feet. All of the fill will be placed within the confines of dikes as they existed before the erosion occurred. In other words, the fill will not encroach any farther into the lake than the original dikes did. Therefore, the loss of lake surface area and volume is minimal and does not constitute a significant impact.

Therefore, given that the project has no significant impacts, no mitigation measures are necessary.

Conclusion

Therefore, the Commission finds that the proposed development is consistent with Sections 30231, 30233 and 30235 of the Coastal Act as the proposed fill: (1) is for one of the allowable uses for fill of coastal waters under Section 30233(a)(5); (2) is allowable as a shoreline revetment required to protect existing structures under Section 30235; (3) will not create adverse impacts on local shoreline sand supplies; (4) is the least environmentally damaging feasible alternative, and (5) requires no mitigation measures.

3. Public Access.

Coastal Act Section 30210 requires that maximum public access and recreational opportunities be provided when consistent with public safety, private property rights, and natural resource protection. Section 30211 requires that the development not interfere with the public's right of access to the sea where acquired through use. Section 30212 requires that public access from the nearest public roadway to the shoreline and along the coast be provided in new development projects, except in such instances as when adequate access exists nearby or when the provision of public access would be inconsistent with public safety. In applying Sections 30210, 30211, and 30212, the Commission is limited by the need to show that any denial of a permit application based on those 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 entire perimeter dike system around Klopp Lake supports existing public access trails and pathways. The proposed project will facilitate the continued use of these access ways by ensuring that bank erosion does not undermine the access ways.

Therefore, the project will not create any adverse impacts to public access and will actually benefit public access by ensuring the continued use of existing access ways. Consequently, the project as proposed, without any new public access, is consistent with public access policies of the Coastal Act.

4. U.S. Army Corps of Engineers Approval.

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. To ensure that the project ultimately approved by the Corps is the same as the project authorized herein, the Executive Director attaches Special Condition No. 1, which requires the permittee to submit to the Executive Director evidence of U.S. Army Corps of Engineers approval of the project prior to the commencement of work.

5. California Environmental Quality Act (CEQA).

Section 13096 of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(i) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. As discussed above, the project will have no significant adverse impact on the environment within the meaning of CEQA.

SPECIAL CONDITIONS:

1. U.S. Army Corps of Engineers Review.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the applicants shall provide to the Executive Director a copy of a U.S. Army Corps of Engineers permit, letter of permission, or nationwide permit granted for the project.

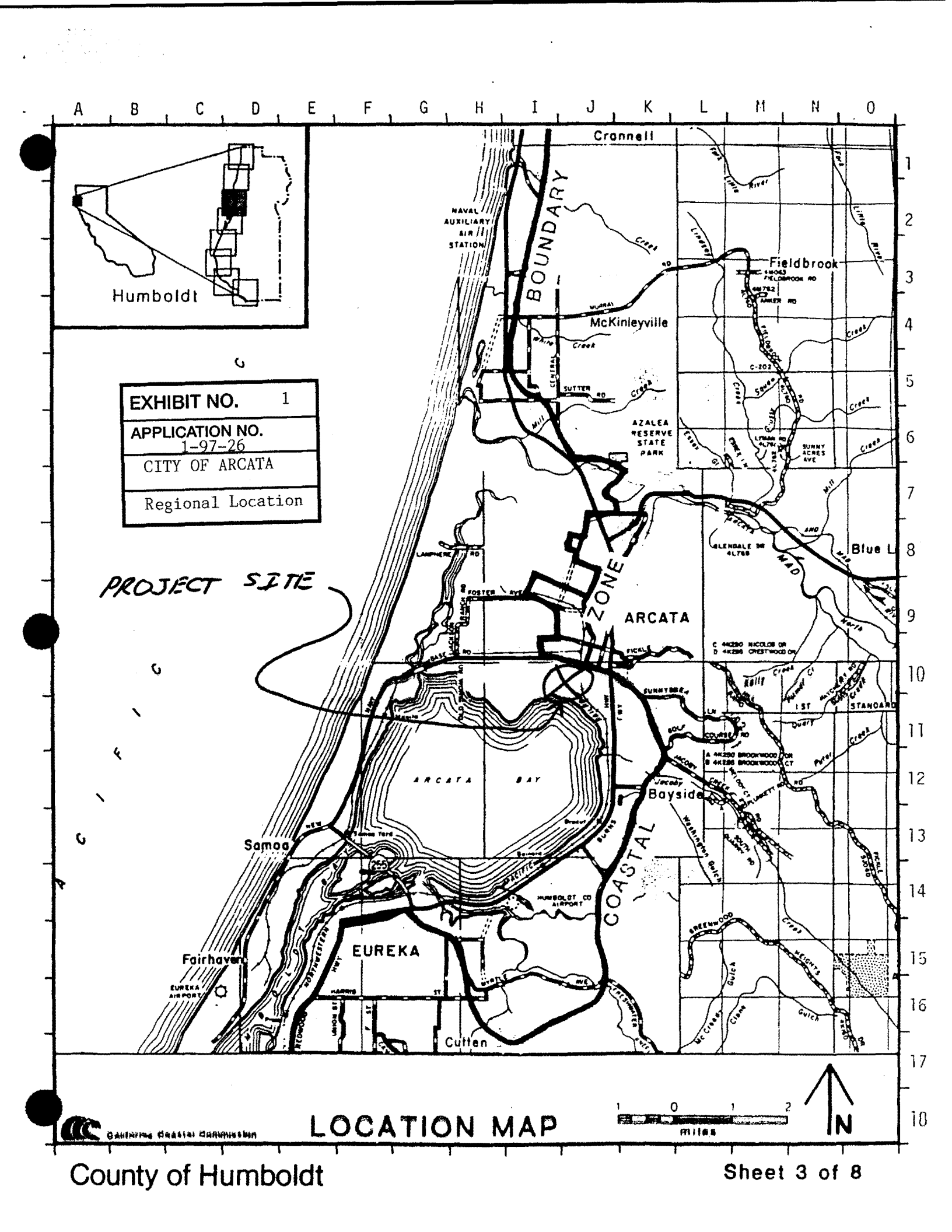
ACKNOWLEDGMENT OF PERMIT RECEIPT/ACCEPTANCE OF CONTENTS:

I/We acknowledge that I/we have received a copy of this permit and have accepted its contents including all conditions.

Applicant's Signature

Date of Signing

9605p



County of Humboldt

Sheet 3 of 8

KLOPP LAKE EROSION REPAIRS

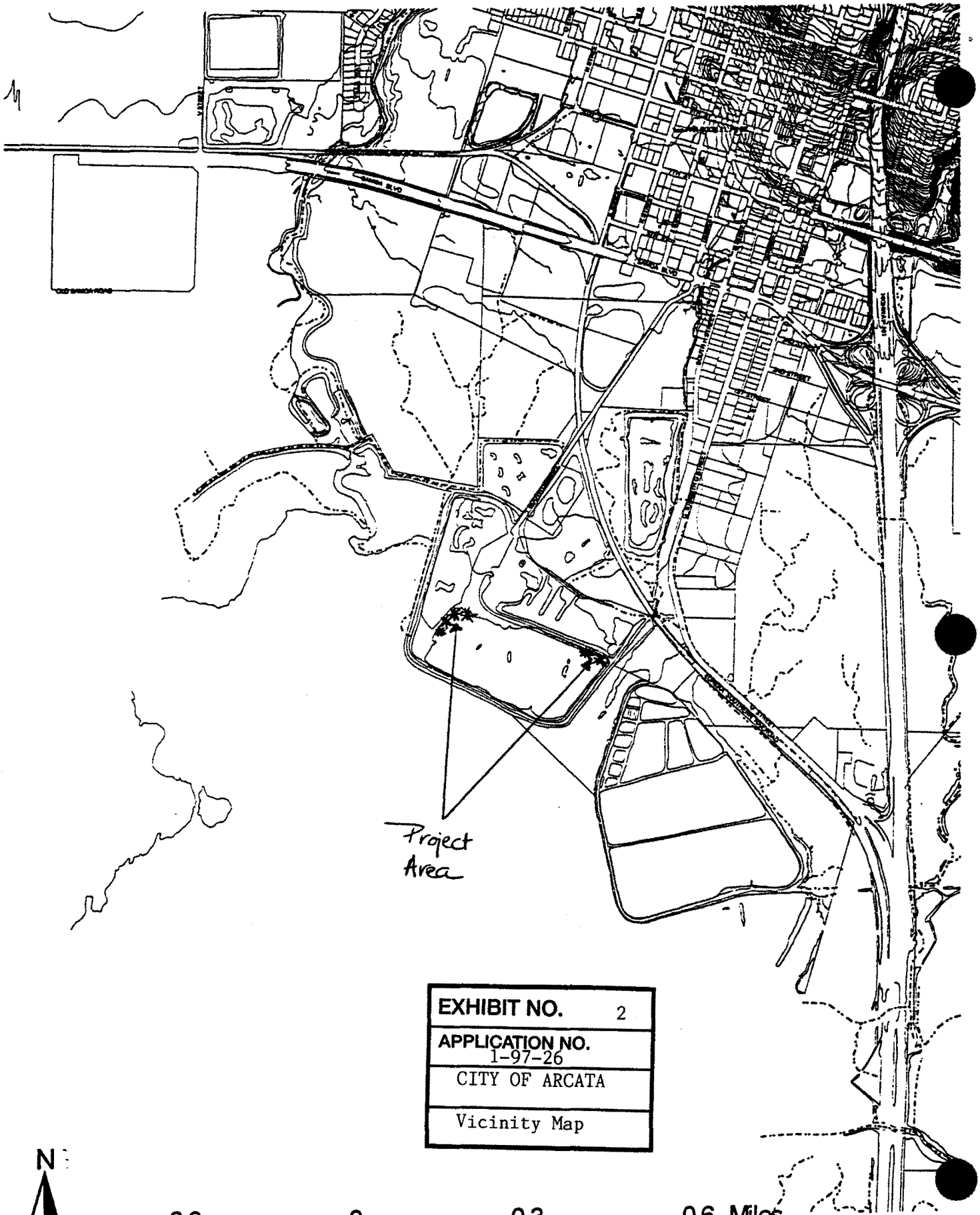


EXHIBIT NO. 2
APPLICATION NO. 1-97-26
CITY OF ARCATA
Vicinity Map

KLOPP LAKE EROSION REPAIRS

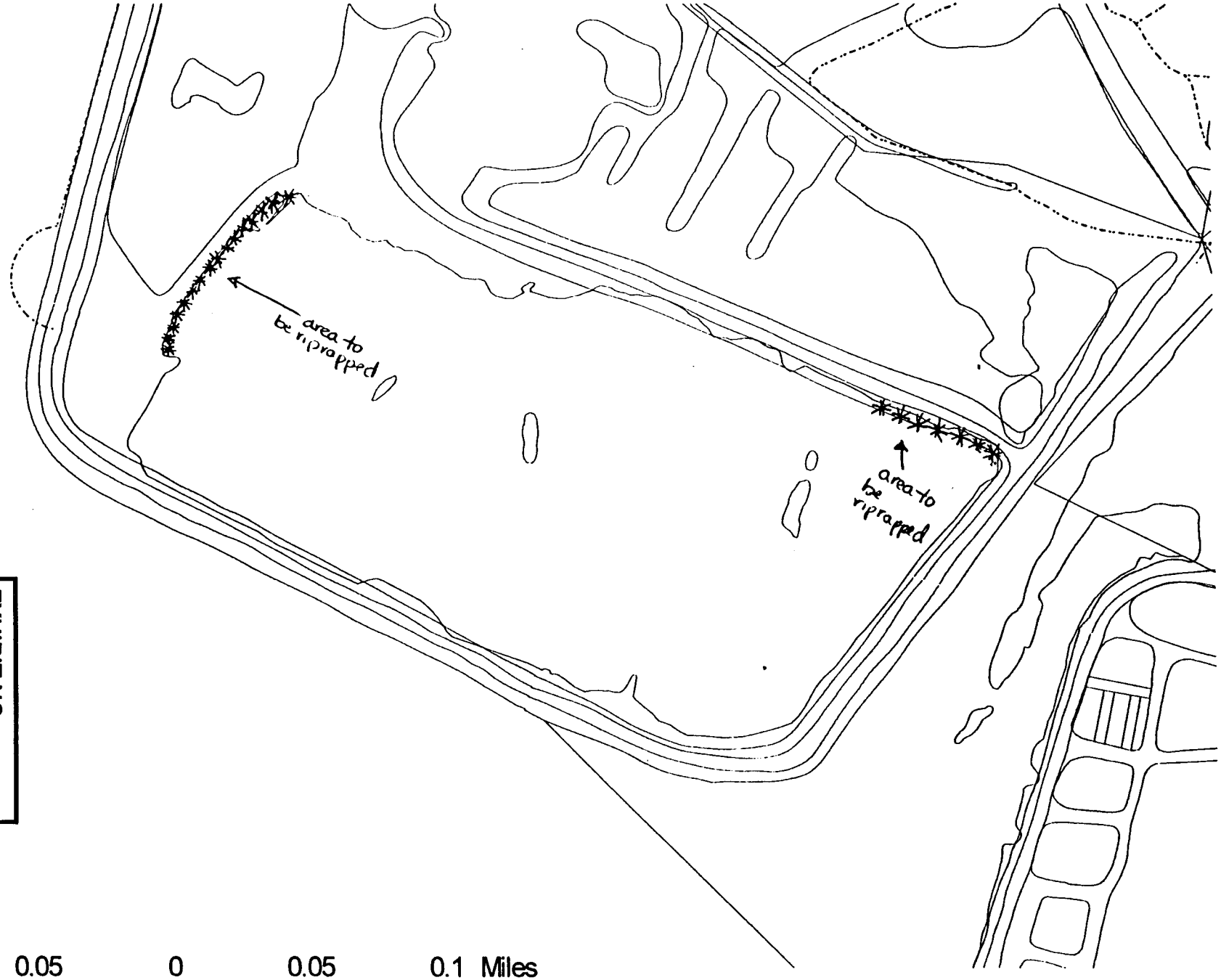
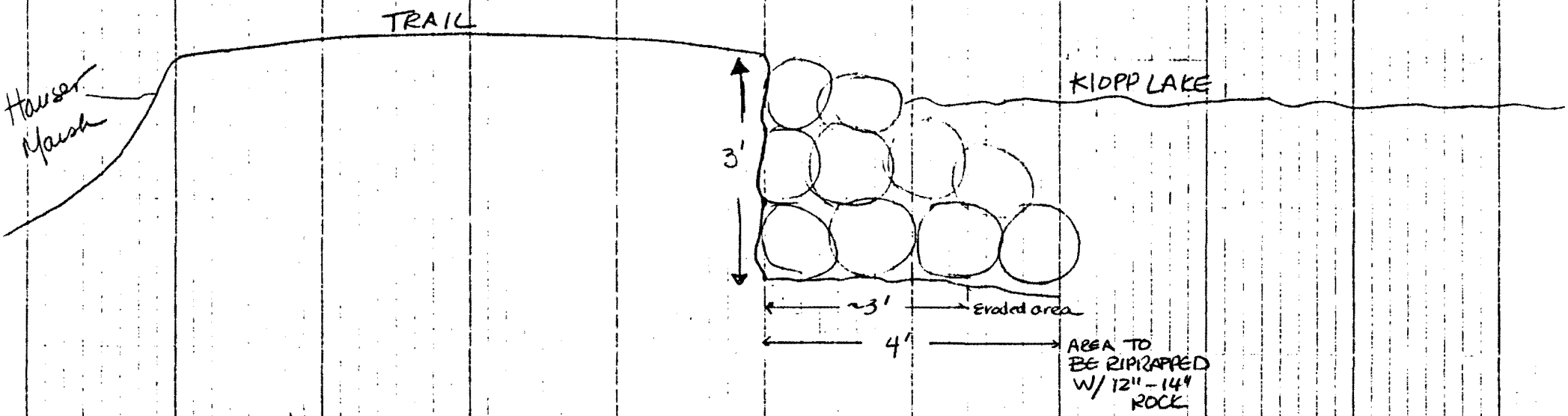
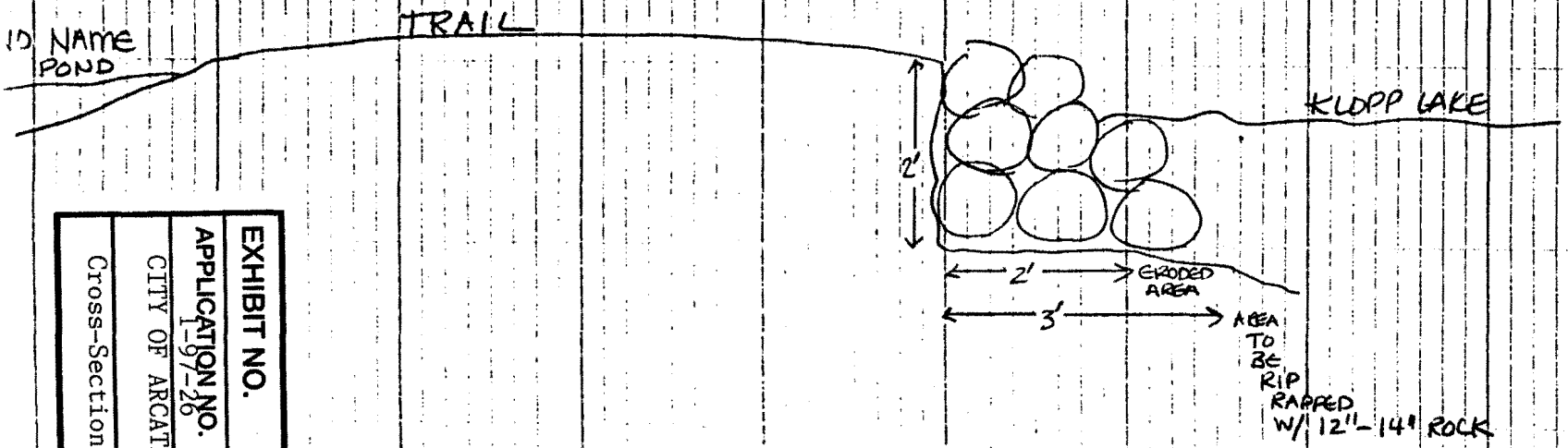


EXHIBIT NO. 3
APPLICATION NO. 1-97-26
CITY OF ARCATA
Repair Location

X SECTIONS - KLOPP LAKE EROSION CONTROL



KLOPP LAKE WEST BANK X-SECTION



KLOPP LAKE NORTH EAST BANK X-SECTION

EXHIBIT NO. 4
APPLICATION NO. 1-97-26
CITY OF ARCATA
Cross-Sections

1/97

HUMBOLDT STATE UNIVERSITY

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March 12, 1997

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

Dear Julie,

This comes as a follow up to the 'phone conversation we had last week regarding the under-rock fauna near the outlet-inlet pipe on the east end of Klopp Lake in the Arcata Marsh. While on a field trip to the marsh with my Biology 430 (Intertidal Ecology) class on February 21st, I turned over a few of the rocks at the base of the bank near the outlet-inlet pipe and was surprised to find attached species typically characteristic of protected marine habitats. Among those we later identified were the compound ascidian *Botrylloides* sp., the solitary ascidian *Mogula manhattensis* (a relatively recent arrival in Humboldt Bay), the sponge *Haliclona* sp., the native Olympic oyster *Ostrea lurida*, and a bryozoan we did not identify to species.

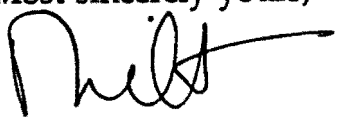
These species are usually found on the undersides of rocks in relatively quiet water near the mouth of the bay. Measurements that I have taken in the past in Klopp Lake didn't seem high enough in salinity to support a population of these species. So I was pleasantly surprised to come across viable populations in that easily accessible location. I wonder if any thought has been given to placing additional rocks along the base of the east bank in Klopp Lake. Those rocks might provide a suitable substrate (currently in short supply) for the growth of algae and under-rock fauna. Additionally, the rocks might retard erosion currently occurring at the base of the bank.

The erosion at the base of the bank is itself an interesting phenomenon. I carefully removed from one of the small burrows in the bank a crustacean isopod that I believe is *Sphaeroma quoyana*. That species in San Francisco Bay has caused massive damage to styrofoam floats at marina facilities and is a significant cause of erosion in banks at the edge of salt marshes. This may be a problem in the future at Klopp Lake and the placement of more rock might at least slow the erosion along that bank.

As you requested, I am also enclosing a couple of copies of the U.S. Fish and Wildlife Biological Report No. 1 (1992), The Ecology of Humboldt Bay, California: An Estuarine Profile, which I co-authored with Roger Barnhart and John Pequegnat. I hope these will be of use in the Marsh Interpretative Center Library.

Do contact me if further information would be helpful.

Most sincerely yours,



Milton J. Boyd