



Planning and Resource Management for Our Communities and the Environment

16 June 2003

David Powell
Director of Facilities Management
El Dorado Irrigation District
2890 Mosquito Road
Placerville, California 95667

Richard Floch
Richard Floch and Associates
P.O. Box P.O. Box 285
Rescue, California 95672

Subject: **Preliminary Draft**
Technical Memorandum Number 17 –Deer/Wildlife Fence Upgrade Plan

Dear Mr. Powell and Mr. Floch:

As part of the relicensing of the El Dorado Irrigation District FERC Project #184, and at the request of the Department of Fish and Game, EIP Associates has developed a plan to upgrade and monitor deer and wildlife fencing around the El Dorado Irrigation District hydroelectric water conveyance canal. The plan provides specifications for the materials and construction of the fencing; a schedule for completing upgrade work; as well as a long-term monitoring schedule.

EIP Associates
Roy Leidy, CFS No. 1730
Russell Kobayashi, RPF No. 2725

Should you have any questions or wish to discuss this report please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Roy Leidy".

Roy Leidy
Principal
Director, Fisheries and Aquatic Sciences

Attachments

EL DORADO IRRIGATION DISTRICT FEDERAL ENERGY REGULATORY COMMISSION PROJECT NUMBER 184

DEER/WILDLIFE FENCE UPGRADE PLAN

Introduction

The El Dorado Irrigation District (EID) owns and maintains a deer/wildlife fence built along sections of their hydroelectric water conveyance canal. The fencing prevents deer and other wildlife from entering into the canal and associated project facilities. In 2002, EID conducted an assessment of the condition of their deer/ wildlife fencing at the request of the U.S. Forest Service and the California Department of Fish and Game (CDF&G). Results of the assessment identified the type of fencing currently in place and also identified the locations where fence repairs were needed. Results of the survey are presented in Technical Memorandum #7 (EIP Associates 2002).

During Federal Energy Regulatory Commission (FERC) Collaborative meetings being held for the relicensing of the project, concerns were raised by CDF&G officials whether the present condition of the fencing was adequate to protect wildlife. EID believes that the current fencing is adequate to protect deer and wildlife, however agreed with CDF&G that the condition of the fencing was not consistent along its entire length. Therefore, EID proposes to upgrade the fence in locations where the current fencing does not comply with standards agreed upon with CDF&G.

This upgrade plan discusses the locations where the upgrades will be required and includes:

- 1) Material Specifications;
- 2) Schedule for completing the upgrades;

- 3) Plan for monitoring deer mortality in the canal; and
- 4) Maps illustrating locations of existing fence and locations requiring upgrades.

Mule Deer (*Odocoileus hemionus*)

Mule deer in the South Fork American River area are elevational migrants, and travel along trending ridgelines in an east-west migratory pattern. The deer winter in the lowland foothills and oak woodlands west of the Sierra Mountains, and migrate eastwards in the summer to the high-country breeding grounds in the High Sierras. Two mule deer subspecies occur in this range; Columbian blacktail (*Odocoileus hemionus columbianus*) and California mule deer (*O. h. californicus*). The California mule deer is the regionally dominant subspecies.

The Pacific and Grizzly Flat deer herds occur in the South Fork American River drainage along U.S. Highway 50. In 1982 CDF&G developed separate management plans for each herd in conjunction with the Eldorado National Forest.

The Pacific deer herd predominantly occurs in the area north of the South Fork American River and occupies a range of approximately 350 square miles within El Dorado County and a portion of Placer County south of the Rubicon River. The western boundary of their summer range occurs between Placerville and Georgetown at an elevation of approximately 2,500 feet. The eastern boundary of their winter range occurs along the Sierra Crest in the Desolation Wilderness, at an elevation of approximately 8,000 feet. Spring migration begins in late April to early May and normally extends into the middle of June. The major migration routes historically used by the deer occur along Peavine, Poho and Telephone Ridges (DF&G, 1982).

The Grizzly flat deer herd generally occupies the area south of the South Fork American River. The eastern extent of the deer's summer range lies above 5,500 feet, in the vicinity of Silver and Caples Lake and north to U.S. Hwy 50. The western boundary of their winter range is located between Camino and the South Fork Cosumnes River at elevations of 3,500 to 4,000 feet. Spring migration begins in late April and the deer arrive in their summer range in June. The

major migration routes historically used by the deer occur along east-west trending ridgelines in the area, including Iron Mountain, Plummer, and Baltic Ridges.

There is probably some co-mingling of the Pacific Deer herd and the Grizzly Flat deer herd in some portion of their respective ranges. U.S. Highway 50 and the South Fork American River represent large obstacles to the north-south movement of deer in the area, likely contribute to the segregation of the two herds.

Current Condition of Fence

Deer fencing is currently exists along the upper portion of the project canal, from Carpenter Creek to the Plum Creek. Approximately 13,300 feet of this fence has been previously upgraded as part of the Pacific Gas & Electric Company Canal Restoration Work conducted in 1993, while approximately 14,770 feet requires upgrades to comply with the standards presented below.

Most of the existing deer fence complies with the height requirements of the upgrade specifications presented below and functions properly to prevent deer from entering the canal. Most of the upgrade work will consist of replacing the old wood posts and barbwire sections with the specified upgrade materials. Some sections of the fence were originally erected 20-75 feet away from the canal, and located beneath the canopy of the surrounding forest. These sections of fence will be upgraded and set adjacent to the canal facilities to allow for easier construction, monitoring, and maintenance.

In the lower portion of the project canal from the Alder Creek Siphon to the project forebay, no deer fencing has ever existed. According to ditch tenders, dead deer are rarely found in this area. Deer have been observed utilizing this portion of the canal for drinking water and have been seen wading in the water (EID Personnel). These deer are apparently able to easily climb out of the open ditches in this section of the canal due to lower water velocities associated with the larger canal channel. No deer fence upgrades are therefore required in these area.

Upgrades will also not be required for sections of the canal that convey the water in wooden or concrete flumes as these areas already provide adequate protection to wildlife. Likewise, sections of fence replaced following the Cleveland Fire will not require upgrades because they already meet the accepted standards.

Concurrent Projects

The El Dorado Irrigation District is currently constructing a bypass tunnel to convey water from Alder Creek to Bull Creek. As part of the tunnel construction, EID has agreed to remove approximately 10,300 feet of canal that is bypassed by the tunnel and has also agreed to restore the bench and adjacent slopes on which the canal was located to a more natural condition. Buildings, canal equipment, pipes and pre-cast concrete and wooden canal flume sections will be removed and gunite canal sections folded flat and buried. The canal bench will be graded to a gentle slope and seeded to establish grass cover. Removal of canal and its associated facilities will permit the unrestricted migration of deer and other wildlife through the bypass area.

Deer Fence Upgrade Requirements

The following upgrade specifications were obtained through discussions with CDF&G and the U.S. Forest Service. Upgrade work shall comprise of furnishing, fabricating, and installing the deer fencing as specified herein and as shown on preliminary design drawings (Figure 1 and 2). The design drawings provided in this document are for illustrative purposes only and are subject to revision by EID engineers. The maps and design drawings provided in this report are not intended to be used for solicitation of work or as part of any contract. Final construction designs and plans will be provided and approved by EID engineers.

Material Requirements

Materials used for upgrade work shall be new, the best of its respective kind, and free from defects. Specified make, brand or quality of materials designated in the design drawings shall also be used. Where no specific make is indicated, any first-line product of a reputable domestic

manufacturer may be used, provided it conforms to the requirements of this specification and meets with the approval of the engineer. Similar materials shall be from the same manufacturer for the entire project unless otherwise authorized by EID in writing or specified in revised design drawings. Materials shall include, but are not limited to, wire mesh, posts, bracing, gates, fasteners, and connection hardware.

The following material standards are part the deer fence upgrade specifications. El Dorado Irrigation District shall be responsible for providing materials in accordance with these standards, unless otherwise noted in the design specifications. Material standards shall be referred hereinafter by their abbreviations. The following specifications were taken directly from specifications required for the Pacific Gas & Electric Company El Dorado Canal Restoration Deer Fencing Specifications (1993):

Table 1 American Society for Testing and Materials (ASTM)	
Material Standard Abbreviation	Material Description
A36-89	Structural Steel
A53-90	Pipe, Steel Black and Hot Dipped, Zinc-Coated (Galvanized), Welded and Seamless for ordinary uses
A116-88	Zinc-Coated (Galvanized) Steel Woven Wire Fence Fabric
A121-92a	(Galvanized) Steel Barbed Wire
A123,A-89	Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strips (Rev A-89)
A239-89	Test for Locating the Thinnest Spot in a Zinc (Galvanized) Coating on Iron Steel Articles by the Preece Test (Copper Sulfate Dip)
A702-89	Steel Fence Posts and Assemblies, Hot Wrought
B633-85	Electrodeposited Coating of Zinc on Iron and Steel
F626-91	Fence Fittings
F669-92	Strength Requirements of Metal Posts and Rails for Industrial Chain Link Fence
F1083-91	Pipe, Steel, Hot-Dipped Zinc-Coated(Galvanized) Welded, for Fence Structures
F1234-92	Protective Coatings on Steel Framework for Fences

Source: PG&E (1993) El Dorado Canal Restoration -- Deer Fencing specification

***GALVANIZING:** Metal fence posts, braces, rails and gate material shall be galvanized and shall be tested in accordance with ASTM A239. Galvanizing of materials other than fabric shall conform to ASTM A123. Abraded galvanized areas shall be touched up after erection of the fence with Sprayon "740 Galvanizing Compound" or CRC "Zinc-it" (aerosols) or approved equivalent.*

***DEER FENCING FABRIC:** Deer fencing fabric shall conform to ASTM 116-88, 14 gage, Class 1 zinc-coated (galvanized) wire. Height of the fabric shall be 72 inches, with graduated line wire spacings, with the largest spacing on the top and the smallest spacing on the bottom.*

***CHAIN LINK FABRIC:** Chain link fabric shall conform to ASTM A491, 9 gauge aluminized wire, 2- inch mesh, knuckled at top selvage and twisted and barbed at the bottom. Height of fabric shall be as shown in the design drawings*

***BARBLESS BARBED WIRE:** Barbless Barbed Wire shall conform to ASTM A121-92a, 2 strand, 12 ½ gauge, Class 3 zinc-coating.*

***TENSION AND TIE WIRE:** Tension and tie wires shall conform to ASTM A116-88, Class 3 zinc-coated (galvanized) wire, and shall be 11 gauge, or heavier.*

***POSTS, GATE FRAMES, BRACES, RAILS AND FITTINGS:** Posts, gate frames, braces, rails, and fittings shall comply with the diameters and schedules shown on the design drawing and shall conform to ASTM A702-89 (Posts) and ASTM F 626-91 (Fence Fittings). All pipe posts shall be capped. If a conflict exists between the ASTM specifications and the design drawings, the heavier gauge or zinc coating shall be used.*

MISCELLANEOUS MATERIALS: Galvanized bolts and nuts for attaching braces and straps to metal posts and suitable galvanized hardware, as required, shall be of commercial quality and design. All other steel shall be ASTM A36.

REPORTS: The supplier shall furnish certified reports on chemical analysis and physical tests as described in the above specifications and standards if required by EID, the Forest Service or the Department of Fish and Game.

CONCRETE: Concrete for setting fence posts, where required, shall be proportioned with $\frac{3}{4}$ " Maximum size aggregate, contain not less than 470 pounds of cement per cubic yard, and provide a 28-day compressive strength of 3000 psi. Concrete shall be in place a minimum of 10 days before tension is applied to the fence posts.

Fabrication and Erection Standards

General: Fabrication and erection of the fencing and gates shall be performed by personnel experience in this type of work. Finished installation shall be representative of the best workmanship of the trade. Details and fabrication shall conform to ASTM standards.

POST HOLES: Post holes shall be plumbed and in true alignment. Bottoms of the holes shall be approximately flat and not less than 3 inches below the bottom of the posts. Earth or rock removed from post holes shall be spread out and distributed around the work site, but not allowed to enter into the water flowing in the canal.

DRIVEN POSTS: Posts shall be driven to a minimum depth of 18 inches or as required to bury the base plate of the posts or to obtain a firm, stable mount for wire mesh. Any posts that is bent, has a detached base plate, or is damaged in any other way that results in the improper functioning of the fence during installation shall be replaced.

POST SETTINGS: Line posts shall be placed at no more than 10- foot centers in the line of the fence, and set in place by driving, in accordance with the above specifications. Gate posts shall be installed as shown in the design drawings and shall be set to provide sufficient clearance for gate hardware and gates. Pull posts shall be installed at any point where the line of the fence changes direction by 15° or more. Gate posts and braced posts shall be concreted into place. Prior to pouring concrete, post holes shall be wetted to provide moisture for curing the concrete. However, no standing water shall be allowed to remain in the hole when the concrete is placed, and the concrete shall be thoroughly compacted when placed. Posts shall then be set in holes filled with concrete. The exposed top surface of the concrete shall be steel troweled to a slope to provide a neat appearance and to shed water. Posts shall be plumb and accurately aligned.

TRUSS RODS: A steel truss rod not less than 3/8- inch diameter, fitted with a turnbuckle (or approved equivalent adjustment hardware), shall extend from the line post end of the brace to the base of the gate, corner, pull, or end post and securely fastened to both posts.

TENSION WIRE: Top and bottom tension wires shall be fastened to the line posts with clips or wire ties and shall be continuous and taut from one end to the other along each stretch of fence. Tension wires shall be securely fastened to each gate, corner, pull, and end post.

FABRIC: Appropriate fabric shall be installed on the outside of the posts and evenly stretched and fastened to posts and braces by means of bands or tie wires with a minimum of eight ties per post, or as required to stabilize wire fabric. Chain link fabric shall be similarly applied and attached at all gates.

BARBLESS BARBED WIRE: Two strands of barbless barbed wire shall be secured to the posts. Wire shall be continuous from end to end of each stretch of

fence, be drawn taut, and securely fastened to the gate, corner, pull, and end posts.

GATES: Gates shall be erected plumb and true, compete with necessary accessories properly installed to provide smooth operation. Gate frames shall be constructed of not less than 1-7/8 inch, Schedule 40 pipe. Gate frame panels shall be cross trussed with 3/8 inch adjustable truss rods. The corners of the gate frames shall be fastened together and reinforced with a malleable iron or a pressed steel fitting designed for the purpose, or by welding. Pressed steel fittings shall have a nominal thickness (before galvanizing) of not less than .135 inch and shall be suitably fastened to develop the strength of the connected members. Welding shall conform to the best commercial practice; all welds shall be sound, smooth and develop the strength of the connected member.

All fittings, latches, rods, and other gate hardware shall be galvanized in accordance with the above galvanizing specifications.

Chain link fence fabric specified for the fence shall be attached to the gate frame by the use of stretcher bars and tie wires as specified for fence construction, and suitable tension connectors shall be spaced at approximately one-foot intervals.

The gates shall be hung by at least two steel or malleable iron hinges, not less than three inches in width, and designed so as to securely clamp to the gate post and permit the gat to swing 180°, with heavy duty, commercial grade, self-closing hardware.

In general, in determining the post spacing, measurements shall be made parallel to the ground slope, and all posts shall be placed in a vertical position, except in unusual locations where directed by the Engineer, the posts shall be set perpendicular to the ground surface.

Any high points which interfere with the placing of wire mesh shall be excavated to ensure that the required height of fencing is maintained

Damaged galvanizing of the fence and appurtenances shall be repaired by applying a coat of Sprayon "740 Galvanizing Compound", CRC "Zinc-it", or approved equivalent to the damaged area.

Upgrade Schedule

Upgrade work will consist of: replacing old fence materials with new specified materials; realigning the fence in relation to the canal, if necessary; and erecting new fence in locations identified through agency consultation where it does not currently exist. An upgrade schedule has been developed based on: 1) the location of the fence along the canal; 2) whether the fence requires realignment; and 3) the need for additional protection for deer and wildlife (Table 2).

1) Location of fence along canal—For the purpose of this report and upgrade schedule, the canal was divided into three sections (Figure 3). Section 1 includes the length of canal from the diversion dam on the South Fork American River, to Camp One at Alder Creek (Figure 4). Section 2 includes the length of canal from west of Camp One at Alder Creek To Camp Two at Bull Creek (Figure 5). Section 3 includes the length of canal west of Camp Two, to the projects forebay (Figure 6). Deer mortality records for sections one and two are presented in Technical Memorandum #4 (PG&E, 1998). Records indicate that section 1, upstream of the Alder Creek Siphon, had greater deer mortality than in section 2. No records are available for section 3, but according to ditch tenders, dead deer are rarely found in this part of the canal. Based on this information, priority was given to the upper sections (1 & 2) of the canal when developing the upgrade schedule. Section 1 having the highest priority followed by Section 2 and then Section 3.

2) Fence requires realignment—In areas where the existing fence is set back from the canal and beneath the canopy of the surrounding forest, the fence will be realigned closer

to the canal facilities, while still allowing for normal canal maintenance and operations. This will allow for easier maintenance and monitoring of the fence once upgrades are completed. These areas will have priority to be upgraded before sections that do not require realignment. Once the realigned sections are erected and functioning, the old fencing will be removed.

3) Need for additional protection for deer and wildlife. –Locations that require the construction of new deer fencing will be identified through monitoring deer mortality along each canal section. Results of the monitoring will be recorded annually by EID and submitted to CDF&G upon request. Mortality data will be used (in consultation with the CDF&G) to identify the locations where more protection is needed for deer and wildlife. New fencing shall be constructed only after the entire existing fence has been upgraded.

Upgrades will be conducted in an efficient and economical manner concomitant with normal canal maintenance and operation.

Deer Monitoring and Fence Maintenance

It is anticipated that the planned upgrades will span several seasons before all fence sections comply with the specifications. El Dorado Irrigation District proposes to complete the section 1 and section 2 upgrades within five years, at a minimum rate of 3,000 linear feet of fence per year. The locations of completed upgrades and approximate length of replaced or newly constructed sections shall be recorded annually by EID ditch tenders and submitted to the CDF&G upon request. In the event that upgrade work cannot be completed within 5 years, due to conditions beyond the control of EID, the upgrade schedule will be modified in consultation with the CDF&G.

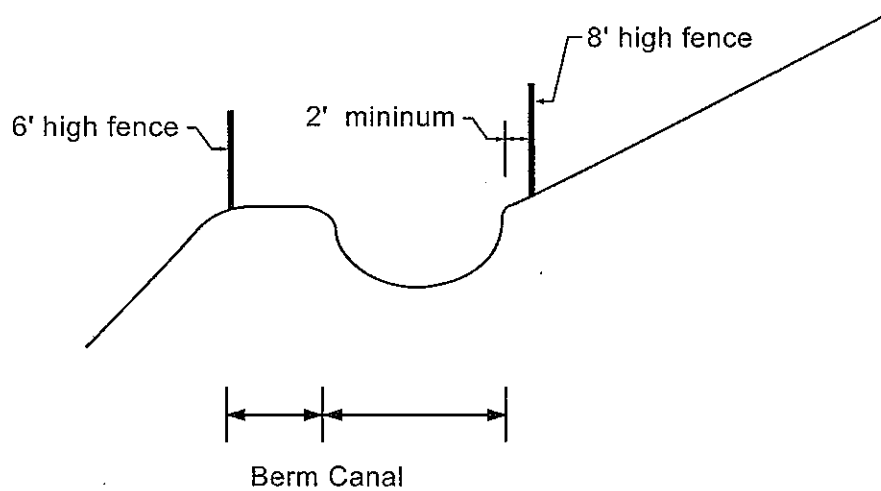
Upon completion of the upgrade work, EID will continue to maintain the deer fencing to ensure proper functioning and protection for deer and wildlife. EID ditch tenders will evaluate the condition of the fencing in the spring (March-June) to identify areas in need of repair and areas

that are not functioning properly to protect deer and wildlife from entering into the canal. A record of maintenance activities and repairs to the deer fencing shall be kept by EID and provided to CDF&G upon request.

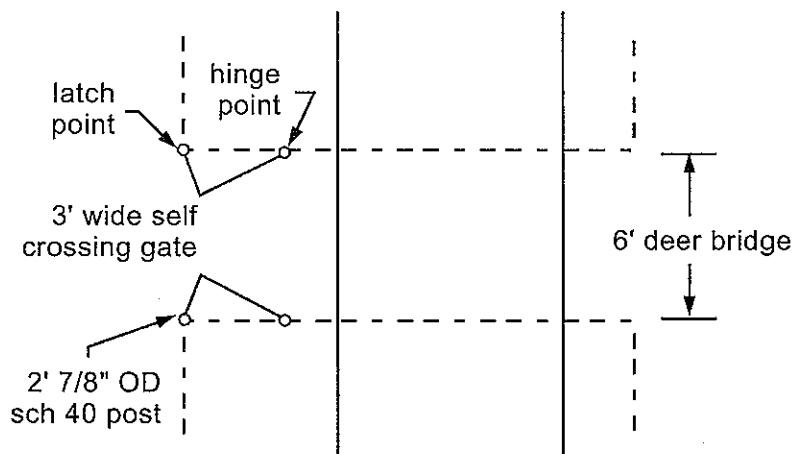
The El Dorado Irrigation District will continue to record deer mortality in Sections 1 and 2 and begin recording mortality in Section 3, where no fencing currently exists. These records will be submitted to the CDF&G upon request, who will evaluate the information and determine if deer populations are being significantly affected by the operation of the canal. If deer continue to become trapped in the canal and experience a high level of mortality, EID will consult with the CDF&G to identify additional mitigation measures or identify additional locations where deer fencing could be erected to provide better protection.

**Table 2
Preliminary Upgrade Schedule**

	2003	2004	2005	2006	2007	2008-
<u>Spring</u> (March 20-June 20)		<input type="checkbox"/> Continue Upgrade Work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade Work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade Work Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade Work Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade Work Section 2 (upgrading)
<u>Summer</u> (June 21-Sept 22)	<input type="checkbox"/> Begin Upgrades in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Complete Upgrade work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade Work Section 2 (upgrading)
<u>Fall</u> (Sept 23-Dec 21)	<input type="checkbox"/> Continue Upgrade work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade work in Section 1 (realignment and upgrading)	<input type="checkbox"/> Continue Upgrade Work Section 2 (upgrading)	<input type="checkbox"/> Complete Upgrade Work Section 2 (upgrading)
<u>Winter</u> (December 22-March 19)	<input type="checkbox"/> Record Current Year Fence Upgrades <input type="checkbox"/> Update Deer Mortality Records (Jan 1.)	<input type="checkbox"/> Record Current Year Fence Upgrades <input type="checkbox"/> Update Deer Mortality Records (Jan 1.)	<input type="checkbox"/> Record Current Year Fence Upgrades <input type="checkbox"/> Update Deer Mortality Records (Jan 1.)	<input type="checkbox"/> Record Current Year Fence Upgrades <input type="checkbox"/> Update Deer Mortality Records (Jan 1.)	<input type="checkbox"/> Record Current year Fence Upgrades <input type="checkbox"/> Update Deer Mortality Records (Jan 1.)	<input type="checkbox"/> Update Deer Mortality Records (Jan 1.)



TYPICAL CANAL ELEVATION



DEER CROSSING

Not to Scale

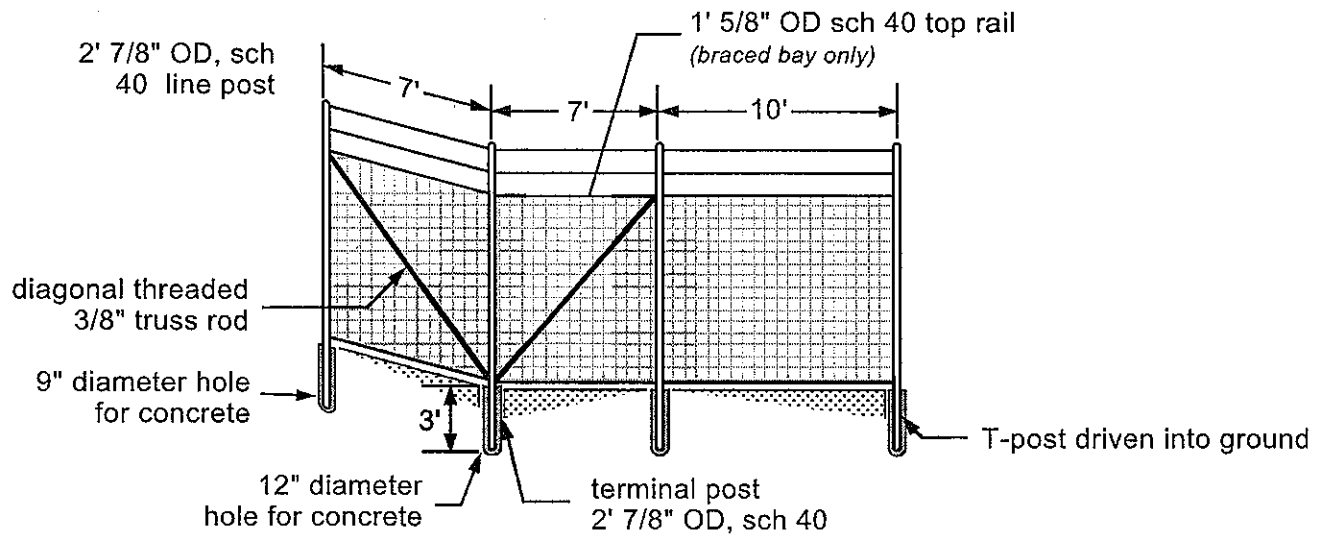
SOURCE: Pacific Gas & Electric Co. 1993

10540-01

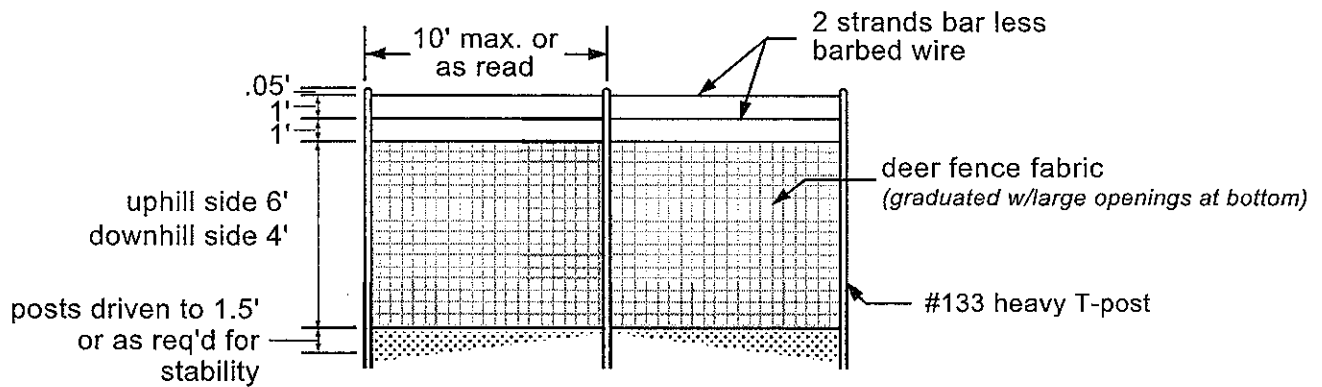


FIGURE 1
Preliminary Design Drawing

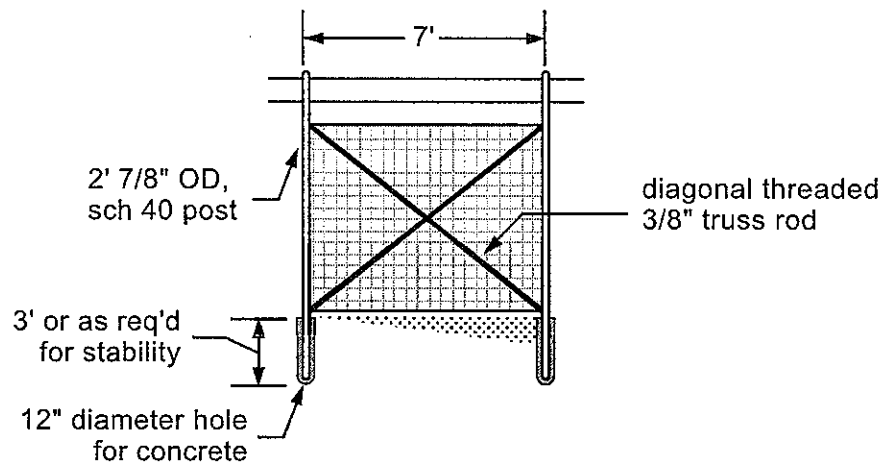
El Dorado Canal



END AND CORNER POST ASSEMBLY



TYPICAL FENCE DETAIL



PULL POST ASSEMBLY

(@ 660' max. between unbraced sections)

Not to Scale

SOURCE: Pacific Gas & Electric Co. 1993

10540-01

EIP
ASSOCIATES

FIGURE 2
Preliminary Design Drawing

El Dorado Canal

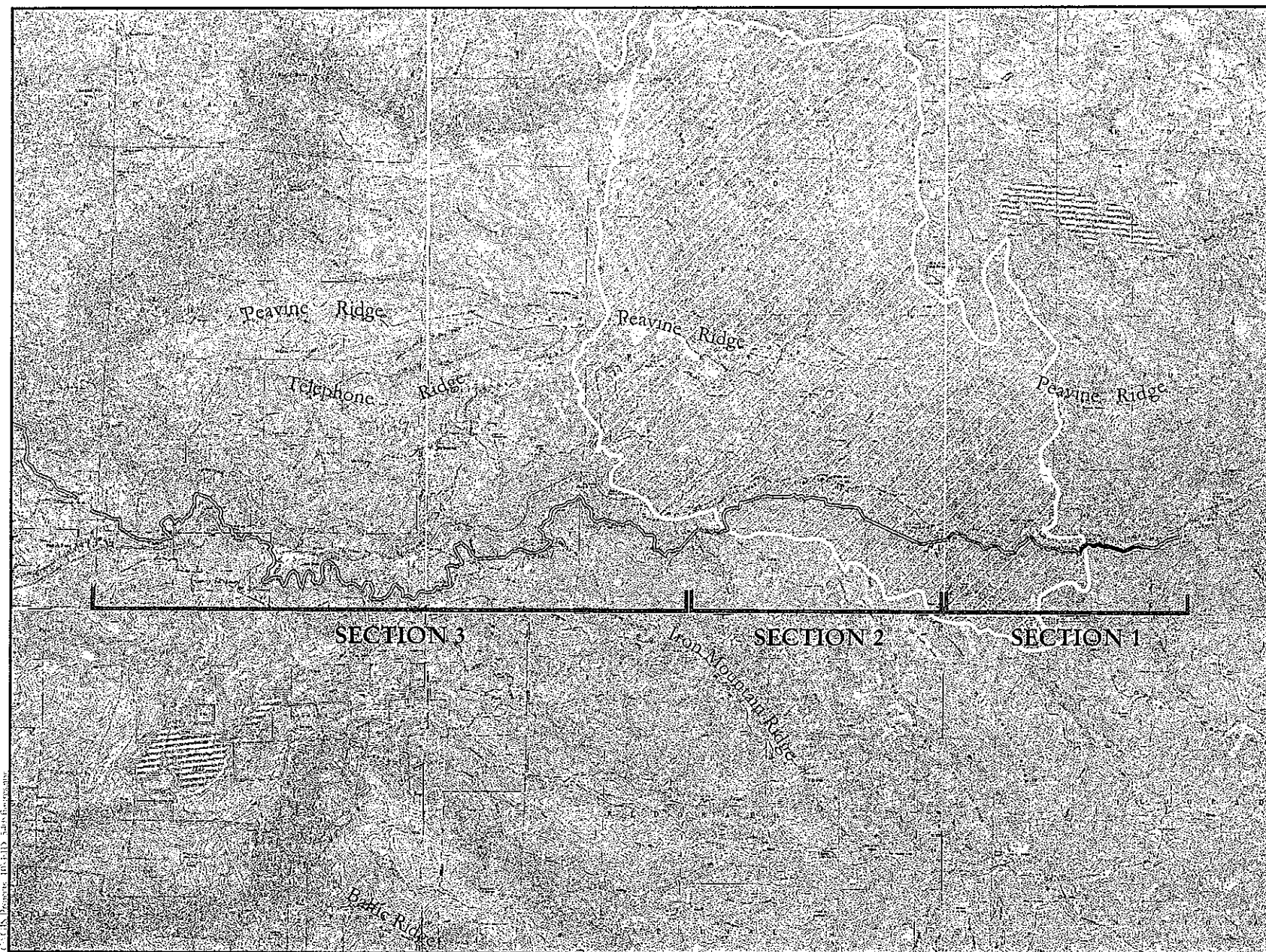


FIGURE 3

**El Dorado Irrigation District
Deer Fence Upgrade Plan
Section Index**

El Dorado Irrigation District
Project 184

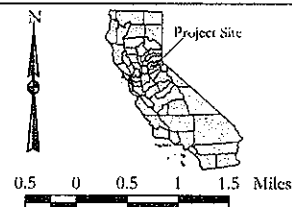
El Dorado County, CA

- Canal
- Tunnel
- Section
- Cleveland Fire Perimeter
- Deer Fencing**
 - Upgrades Required
 - Upgrade and Realignment Required
 - No Upgrades Required

NOTES

1. The locations of the deer fencing were recorded using GPS and are accurate to within 1 meter. However, the perpendicular distances of the fencing from the ditch as shown on Sheets 1-7 are approximate.

GIS Data Projection: Trade Area, NAD83 1983, units: meters.



Source: USGS 7.5 minute topographic quadrangles: Kyburz, Riverton, Pollock Pines, and State Mine, CDF; Cleveland Fire Perimeter (1992); and EIP Associates, Deer Fencing and GIS Program, March 2003.

PROJECT NUMBER: 10540-01

Requested by: RL Created by: NJ Date: 03/12/2003

EIP
ASSOCIATES

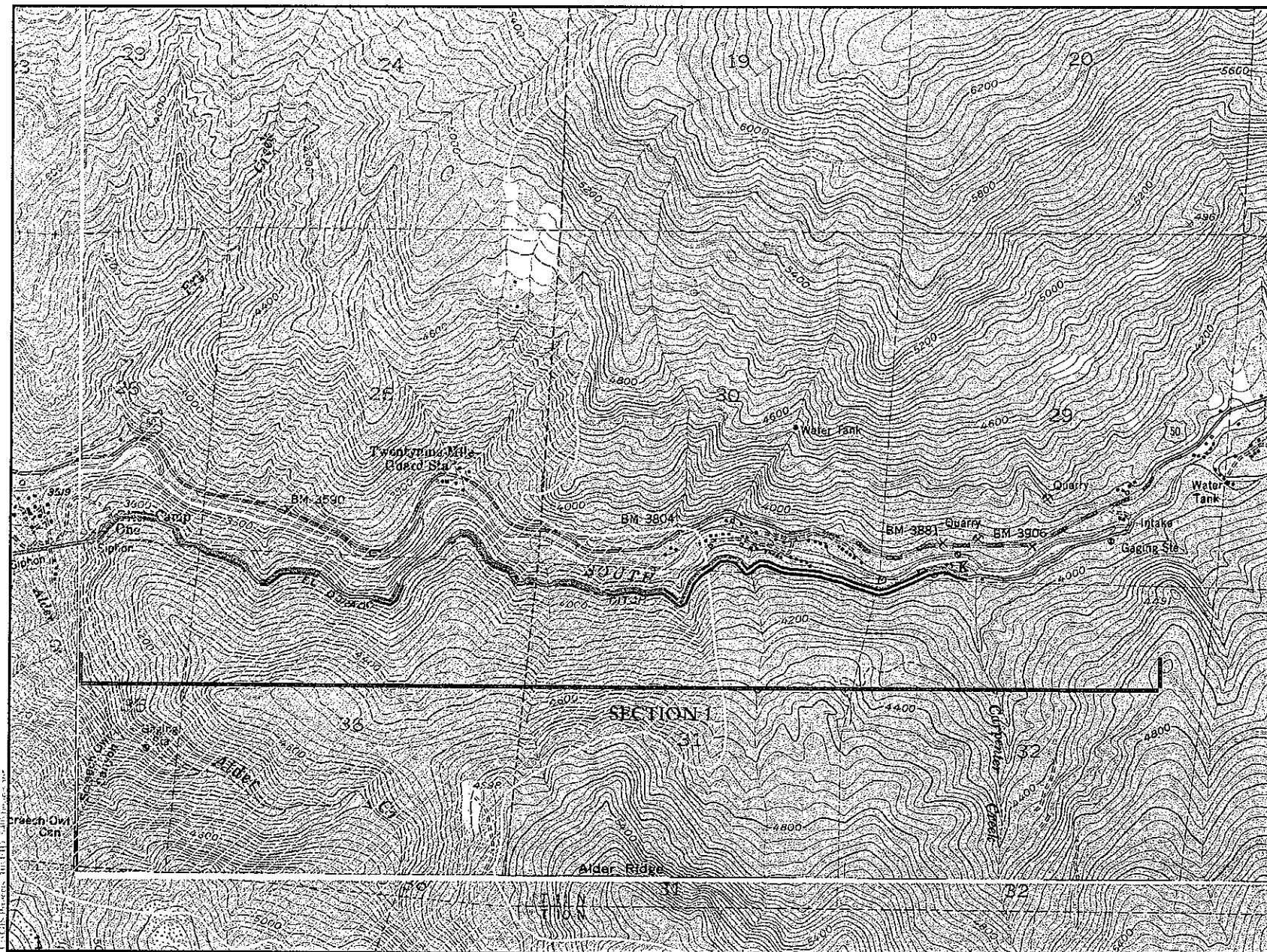


FIGURE 4

**El Dorado Irrigation District
Deer Fence Upgrade Plan
Section 1**

**El Dorado Irrigation District
Project 184**

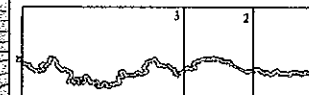
El Dorado County, CA

- Canal
- Tunnel
- Cleveland Fire Perimeter (1992)

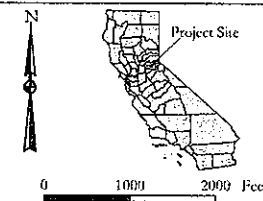
Deer Fencing

- Upgrade and Realignment Required
- Upgrades Required
- No Upgrades Required

Sheet Index



GIS Data Projection: Teale Albers, NAD 1983, units: meters



Source: USGS 7.5 minute topographic quadrangles: Kyburz, Riverton, Pollock Pines, and Shute Mtn.; CDF; Cleveland Fire Perimeter (1992); and EIP Associates, Deer Fencing and GIS Program, March 2003.

PROJECT NUMBER: 10540-01

Requested by: RL. Created by: NJ Date: 03/12/2003

EIP
ASSOCIATES

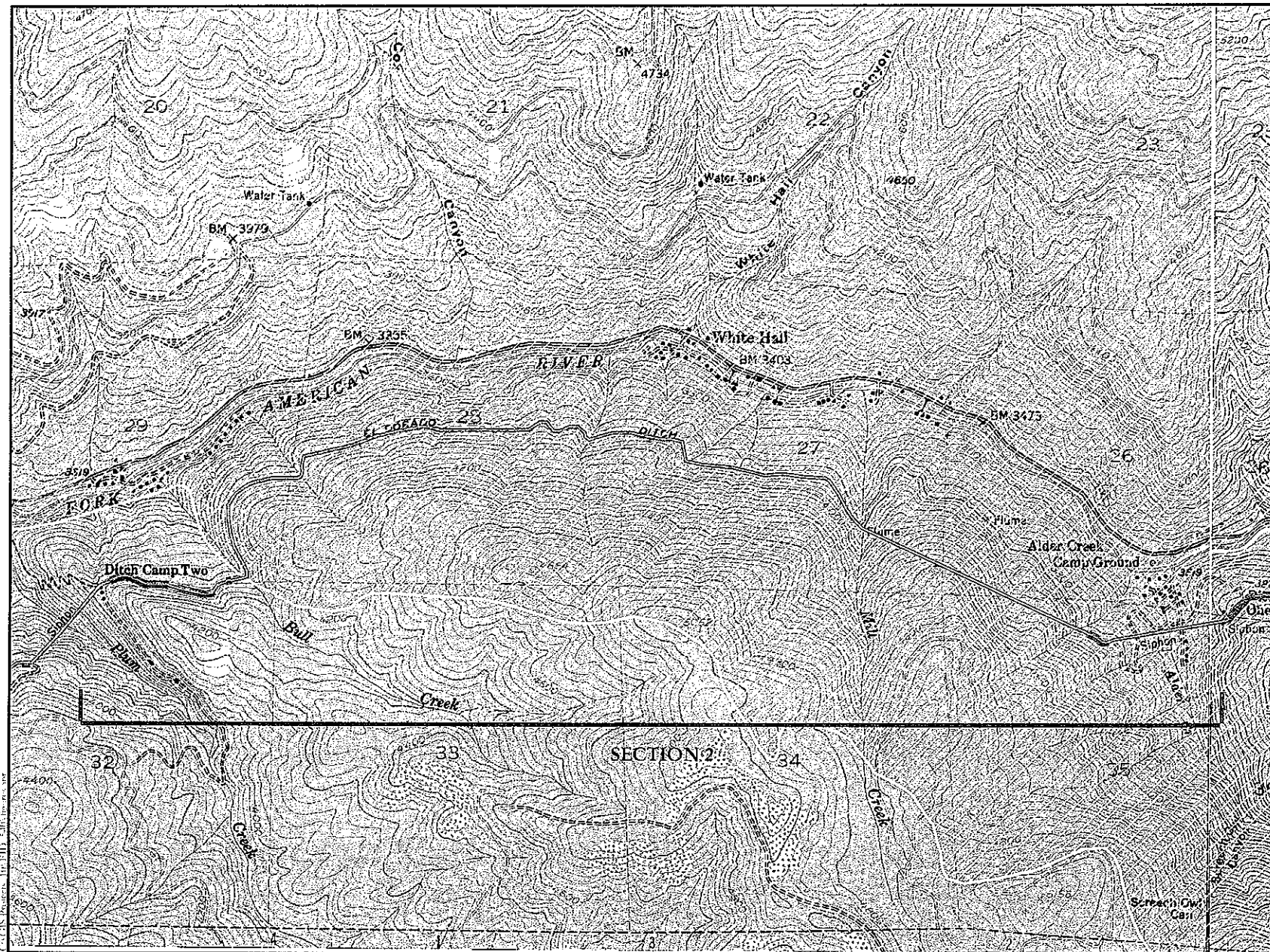


FIGURE 5

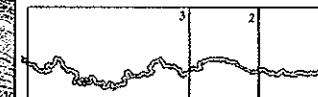
**El Dorado Irrigation District
Deer Fence Upgrade Plan
Section 2**

El Dorado Irrigation District
Project 184

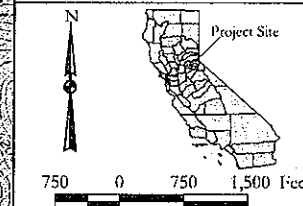
El Dorado County, CA

- Canal
- Tunnel
- Cleveland Fire Perimeter (1992)
- Deer Fencing**
 - Upgrades Required
 - No Upgrades Required

Sheet Index



GIS Data Projection: Teale Albers, NAD 1983, units: meters.



Source: USGS 7.5 minute topographic quadrangles: Kyburz, Riverton, Pollock Pines, and Slate Mt.; CDF: Cleveland Fire Perimeter (1992); and EIP Associates, Deer Fencing and GIS Program, March 2003.

PROJECT NUMBER: 10540-01

Requested by: RL Created by: NJ Date: 03/12/2003

EIP
ASSOCIATES



FIGURE 6

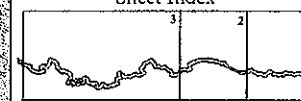
**El Dorado Irrigation District
Deer Fence Upgrade Plan
Section 3**

El Dorado Irrigation District
Project 184

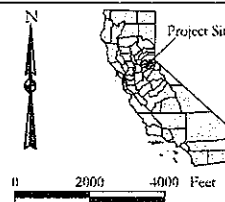
El Dorado County, CA

- Canal
- Tunnel
- Cleveland Fire Perimeter (1992)

Sheet Index



GIS Data Projection: Teale Albers, NAD 1927, units: meters.



Source: USGS 7.5 minute topographic quadrangles: Kyburz, Riverrou, Pollock Pines, and Slate Mtn.; GDF; Cleveland Fire Perimeter (1992); and EIP Associates, Deer Fencing and GIS Program, March 2003.

PROJECT NUMBER: 10540-01

Requested by: RI. Created by: NJ Date: 02/12/2003

EIP
ASSOCIATES