



US Army Corps
of Engineers®

SAN FRANCISCO DISTRICT

Regulatory Division
1455 Market Street
San Francisco, CA 94103-1398

PUBLIC NOTICE

Project: Salt River Ecosystem Restoration Project

NUMBER: 2010-00282 DATE: September 10, 2010
PROJECT MANAGER: David Ammerman PHONE: 707-443-0855

RESPONSE REQUIRED BY: October 10, 2010
Email: David.A.Ammerman@usace.army.mil

1. **INTRODUCTION:** The Humboldt County Resource Conservation District, 5630 South Broadway, Eureka, California 95503 through its agent, Winzler and Kelly (Contact: Jeremy Svehla or Misha Schwarz at 707-443-8326) has applied for a twelve (12) year duration Department of the Army permit (2010-2021) to discharge fill into navigable waters of the United States and other waters of the United States including adjacent wetlands (Salt River and Francis Creek tributaries to Eel River) for the purpose of implementing the Salt River Ecosystem Restoration Project. The work would include but not be limited to large scale river channel excavation of Salt River and Francis Creek, tidal marsh channel excavation, realignment and excavation of Eastside Drainage channel, floodplain contouring, removal and construction or realignment of levees, construction of drainage ditches, installation of water control structures and temporary coffer dams or other water diversion structures, and placement of excavated fill onto agricultural land. The overall volume of material resulting from the project's cut and fill activities is approximately 806,190 cubic yards. The proposed project is located approximately one half mile north of the City of Ferndale. The project boundaries extend from approximately 425 lineal feet upstream of the confluence with Williams Creek downstream to the confluence of the Salt River with Cutoff Slough (a total channel length of approximately 7.5 miles), in Humboldt County, California (See Sheet 1A of 39). This application is being processed as an U.S. Army Corps of Engineers (Corps) individual permit pursuant to the provisions of Section 10 of the Rivers and Harbors Act of 1899

(33 U.S.C. Section 403) and Section 404 of the Clean Water Act (33 U.S.C. Section 1344).

2. **PROPOSED PROJECT:** As stated in the permit application (July 29, 2010) prepared by Winzler and Kelly for the Humboldt County Resource Conservation District (RCD), the Salt River Ecosystem Restoration Project has four main components: (1) Salt River main channel restoration, (2) restoration of Riverside Ranch, (3) channel maintenance, and (4) upslope sediment reduction. The overall goals of the project include: (a) restore hydrologic capacity, fish habitat and water quality in the lower Salt River and lower Francis Creek; (b) benefit native species by re-establishing natural ecological processes; (c) benefit drainage, fish passage and water quality by restoring hydraulic function; (d) address sediment sources in headwater areas of the Salt River watershed; and (e) increase the tidal prism (the volume of water exchanged on each tidal cycle) into the Salt River and the extent of estuarine habitat through restoration activities on Riverside Ranch. The Riverside Ranch, (Sheets 7 through 19 of 39) an approximately 400 acre property with over 2.5 miles of frontage adjacent to lower Salt River was acquired by the Western Rivers Conservancy. Supported by funding from the State Coastal Conservancy, U.S. Fish and Wildlife Service and Wildlife Conservation Board, Riverside Ranch will eventually be transferred from the Western Rivers Conservancy to the California Department of Fish and Game for long-term management (Winzler and Kelley, permit application, July 29, 2010).

Channel Restoration - The main element of the proposed project, a defined channel on the Salt River would be re-established with a connected floodplain for approximately 7.5 miles of river channel. The project also proposes to improve connectivity of the Salt River with Francis Creek and the Eastside Drainage (See Sheets 20 through 36 of 39). Approximately 2,900 feet of lower Francis Creek would be relocated to approximately the historical creek alignment and to eliminate an existing 90 degree turn (See Sheet 23 of 39). In addition, the Eastside Drainage would be reconnected to Francis Creek near the City of Ferndale Wastewater Treatment Plant (WWTP) by constructing a 500 foot long channel (Sheet 23 of 39). Sheet 1B of 39 contains Table 2 of the permit application. This table itemizes the approximate volume in cubic yards of cut and fill associated with the Phase 1 component of the project (Salt River channel excavation and related activities at Riverside Ranch) which total 416, 190 cubic yards of material moved to perform channel restoration. Table 3 in sheet 1B of 39 shows the in-situ earthwork volume balance for Salt River Restoration during the Phase 2 component which includes channel excavation of non-tidal portions of the Salt River upstream of Riverside Ranch, Francis Creek realignment and Eastside Drainage reconnection to Francis Creek and related activities. The Phase 2 component would involve approximately 390,000 cubic yards moved to perform the Salt River restoration. Both Phase 1 and 2 channel excavation activities include placement of excavated material for recontouring of floodplain along the Salt River, placement of fill to construct the Riverside Ranch levee berms, and application of fill on adjacent agricultural lands (on property of cooperating landowners).

Restoration of Riverside Ranch - Among the more important goals associated with the Riverside Ranch restoration activities is to (1) use the increase in tidal prism to maintain Salt River geomorphology and improve drainage and water quality in the lower Salt River and Eel/Salt River estuary; (2) restore tidal connectivity to historic wetlands to allow for the natural evolution of diverse and self-sustaining salt

and brackish water tidal marshes, intertidal mudflat and shallow water habitats; (3) promote the development of a complex tidal drainage network, particularly to enhance rearing and migration conditions for estuarine-dependent species including coho salmon, Chinook salmon, steelhead, coastal cutthroat trout, tidewater goby and commercially and recreationally valuable species such as redbtail perch; and (4) provide public access to the extent feasible without compromising the physical and biological project objectives.

Both Phase 1 and 2 excavation methods available include track-mounted excavators, scrapers and large clam-shell type equipment. Rubber-tired scrapers may be used to excavate material about the saturated zone, and for transport and emplacement in specified areas. Haul roads are anticipated to be constructed adjacent to the excavation area to provide equipment access and allow transport of excavated material to designated fill or disposal sites. Haul trucks that will use Humboldt County roads to transport material would likely be 10- to 18-wheel end and belly dump trucks. It would be the responsibility of the contractor to ensure the haul trucks are street legal and that local speed and weight limits are complied with.

Salt River channel corridor maintenance - The applicant and its agent anticipate that periodic maintenance of sediment and vegetation would be required maintaining the tidal prism and maintaining the restored channel design width and depth. Maintaining the channel, drainage ditches and levee berms, would require re-excavation of deposited sediments and vegetation maintenance. The new low flow channel and floodplain of the Salt River and tributaries would require periodic re-excavation due to the high sediment loads entering the lower reaches from the upper watershed during the storms of fall, winter and early spring months. Channel maintenance would occur during summer or early fall months when the new floodplain is generally dry to minimize disturbance to surface waters and adjacent wetlands.

Options being considered for vegetation maintenance include: intermittent cattle or goat grazing, manual removal and mechanical removal. Special attention would be given to removing non-native invasive species such as Chilean cordgrass (*Spartina densiflora*) and maintenance activities would be coordinated with any regional eradication program.

Upslope Sediment Reduction - Upslope sediment reduction is mentioned in the RCD's permit application to the Corps for the Salt River Ecosystem Restoration Project, however, the applicant's agent states upslope sediment reduction is not a part of this permit action. Some of the upslope sediment reduction activities may require separate Corps permits or may already be covered under Corps permits. The work would include but not be limited to: culvert replacement or bridge installation, placement of bank stabilization measures such as rip-rap or other construction in streams or wetlands. Some activities may not require Corps permits if they do not involve a discharge of fill into streams or wetlands or are activities the Corps does not regulate. Among the other activities proposed are construction of sediment retention basins, stream bank stabilization and other road drainage improvements. The purpose of this activity is to aid the Salt River Ecosystem Restoration Project by reducing the amount of fine sediments entering streams in the upper watersheds and minimize slope erosion during construction of any land development activities.

3. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

National Environmental Policy Act of 1969 (NEPA): The Corps will assess the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. Section 4371 et. seq.), the Council on Environmental Quality's Regulations (40 C.F.R. Parts 1500-1508), and the Corps' Regulations (33 C.F.R. Part 230 and Part 325, Appendix B). Unless otherwise stated, the Environmental Assessment will describe only the impacts (direct, indirect, and cumulative) resulting from activities

within the Corps' jurisdiction. The documents used in the preparation of the Environmental Assessment will be on file with the U.S. Army Corps of Engineers, San Francisco District, Regulatory Division, 1455 Market Street, San Francisco, California 94103-1398.

Endangered Species Act of 1973 (ESA): The Salt River and its tributaries and the Eel River and its tributaries are critical habitat for Southern Oregon/Northern California Coastal (SONCC) Evolutionarily Significant Unit (ESU) coho salmon (*Oncorhynchus kisutch*), the California Coastal (CC) ESU Chinook salmon (*O. tshawytscha*), and the Northern California (NC) Distinct Population Segment (DPS) steelhead (*O. mykiss*). All three of these anadromous fish species are listed as threatened under the Endangered Species Act (ESA) by the National Marine Fisheries Service (NMFS). Winzler and Kelly states in their biological assessment for the above project (Winzler and Kelly, *Biological Assessment for the Salt River Ecosystem Restoration Project, Humboldt County, California*, August 3, 2010, that other Federally-listed fish that may be present in the lower reaches of the Salt River or Eel River estuary include the threatened Southern DPS green sturgeon (*Acipenser medirostris*), the threatened Southern DPS Pacific eulachon (*Thaleichthys pacificus*) and the endangered tidewater goby (*Eucyclogobius newberryi*). The last mentioned fish, the tidewater goby is listed as endangered by the U.S. Fish and Wildlife Service (USFWS). While these appear unlikely to be in the immediate project area, three listed bird species may be present in the general area including the threatened western snowy plover (*Charadrius alexandrinus nivosus*), the endangered marbled murrelet (*Brachyramphus marmoratus*), and the threatened Northern Spotted Owl (*Strix occidentalis caurina*). These three species are Federally-listed by USFWS. Section 7 of the Endangered Species Act requires formal consultation with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) if a Corps permitted project may adversely affect any Federally listed threatened or endangered species or its designated critical habitat.

As of this writing, the Corps is currently preparing consultation letters to both NMFS and USFWS.

Magnuson-Stevens Fisheries Conservation and Management Act: Essential Fish Habitat - The Magnuson-Stevens Fishery Conservation and Management Act requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions permitted by the agency that may adversely affect Essential Fish Habitat (EFH). This notice initiates the EFH consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The proposed project would impact approximately 12 acres of EFH utilized by coho salmon, Chinook salmon and a variety of estuarine and marine fish managed under the Pelagic Fishery Management Plan, Pacific Salmon Fishery Management Plan and the Groundfish Management Plan as administered by the Pacific Fishery Management Council. The Corps' initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in California Waters. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Clean Water Act of 1972 (CWA):

a. Water Quality: Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must first obtain a State water quality certification before a Corps permit may be issued. The applicant has submitted a copy of their application for Section 401 Conditional Water Quality Certification. No Corps permit will be granted until the applicant obtains the required water quality certification. The Corps may assume a waiver of water quality certification if the State fails or refuses to act on a valid request for certification within 60 days after the receipt of a valid request, unless the District Engineer determines a shorter or longer period is reasonable for the State to act.

Those parties concerned with any water quality issue that may be associated with this project should write

to the Executive Officer, California Regional Water Quality Control Board, North Coast Region, 5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403 by the close of the comment period of this Public Notice.

b. Alternatives: Evaluation of this proposed activity's impact includes application of the guidelines promulgated by the Administrator of the Environmental Protection Agency (EPA) under Section 404(b)(1) of the Clean Water Act (33 U.S.C. Section 1344(b)). An evaluation has been made by this office under the guidelines and it was determined that the portion of the project that includes ecosystem restoration is water dependent, however the portions of the project that involve placement of excavated sediment onto private agricultural land is not water dependent. The applicant's agent, Winzler and Kelly, is preparing a comprehensive Alternatives Analysis to be submitted to the Corps of Engineers and U.S. EPA for review.

Coastal Zone Management Act of 1972 (CZMA): Section 307 of the Coastal Zone Management Act requires the applicant to certify that the proposed project is consistent with the State's Coastal Zone Management Program. The California Coastal Commission (CCC) states (Letter to Humboldt County Resource Conservation District, CCC, June 3, 2010) that the majority of the Salt River project site (except for the proposed upslope sediment reduction areas and portions of Francis Creek within the city limits of Ferndale) is located within the California Coastal Zone as defined in Chapter 2.5 of the California Coastal Act (Public Resources Code Section 30150 *et seq*). The CCC's permit jurisdiction includes Riverside Ranch, the Salt River channel, portions of the Francis Creek channel (downstream of the city limits of Ferndale) and other channels, the lower two proposed "channel confinement fill areas", and potentially parts of the upper channel confinement fill areas and some of the agricultural areas proposed for sediment reuse. A Coastal Development Permit (CDP) from the CCC must be obtained before the Corps can issue its permit.

National Historic Preservation Act of 1966

(NHPA): Section 106 of the NHPA of 1966, as amended (16 U.S.C. § 470 *et seq.*), requires Federal agencies to consult with the appropriate State Historic Preservation Officer to take into account the effects of their undertakings on historic properties listed in or eligible for listing in the *National Register of Historic Places*. Section 106 of the Act further requires Federal agencies to consult with the appropriate Tribal Historic Preservation Officer or any Indian tribe to take into account the effects of their undertakings on historic properties, including traditional cultural properties, trust resources, and sacred sites, to which Indian tribes attach historic, religious, and cultural significance. As the Federal lead agency for this undertaking, USACE has conducted a review of latest published version of the *National Register of Historic Places*, survey information on file with various city and county municipalities, and other information provided by the applicant, to determine the presence or absence of historic and archaeological resources within the permit area. Based on this review, USACE has made a *preliminary* determination that historic or archaeological resources are present in the permit area, and that such resources may be adversely affected by the project. To address project related impacts to historic or archaeological resources, USACE will initiate consultation with the State Historic Preservation Officer or the Tribal Historic Preservation Officer, pursuant to Section 106 of the Act. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project. If unrecorded archaeological resources are discovered during project implementation, those operations affecting such resources will be temporarily suspended until USACE concludes Section 106 consultation with the State Historic Preservation Officer or the Tribal Historic Preservation Officer to take into account any project related impacts to those resources.

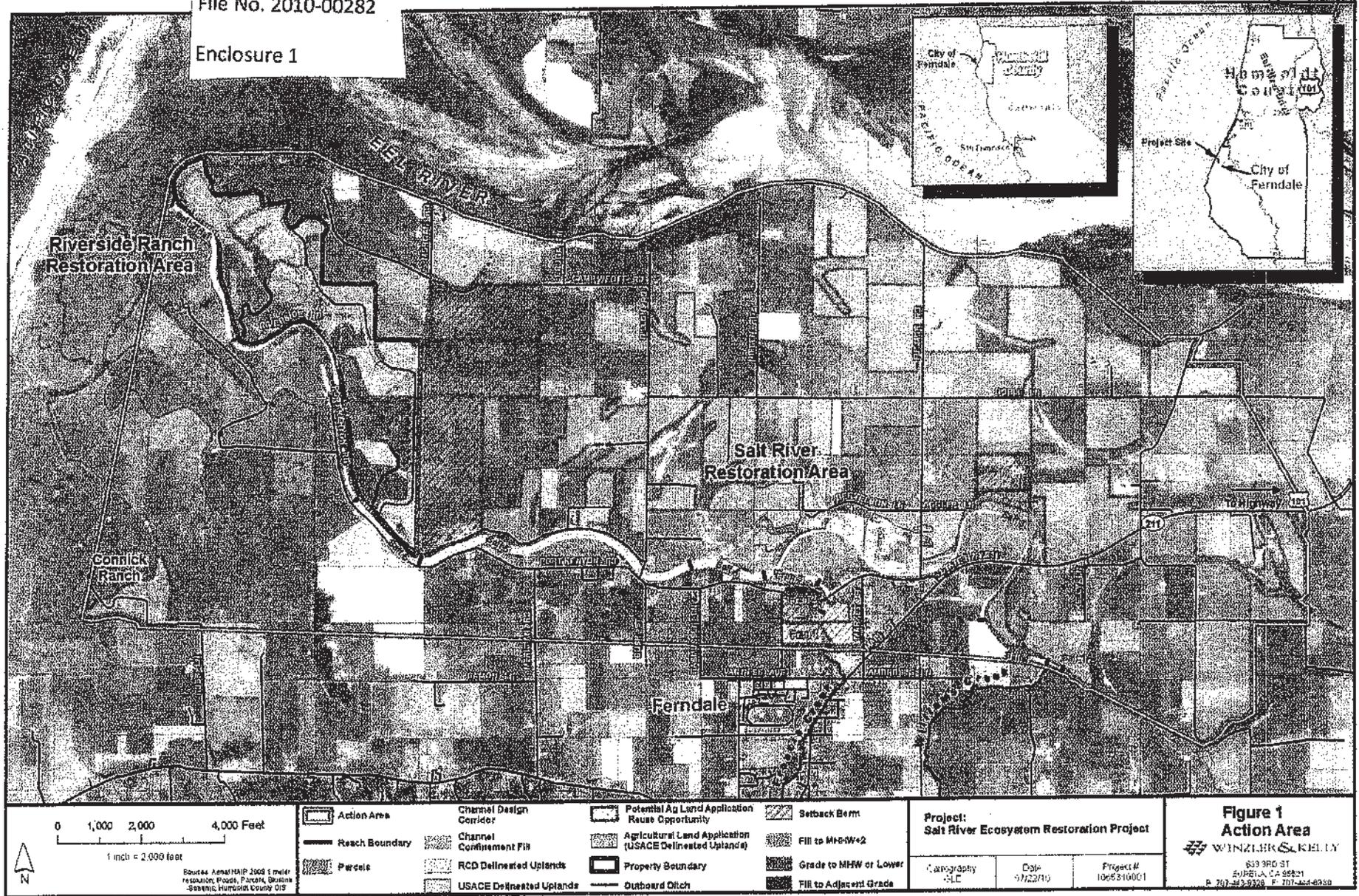
4. PUBLIC INTEREST EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits that reasonably may be expected to accrue from the proposed activity must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the

proposal will be considered, including its cumulative effects. Among those factors are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

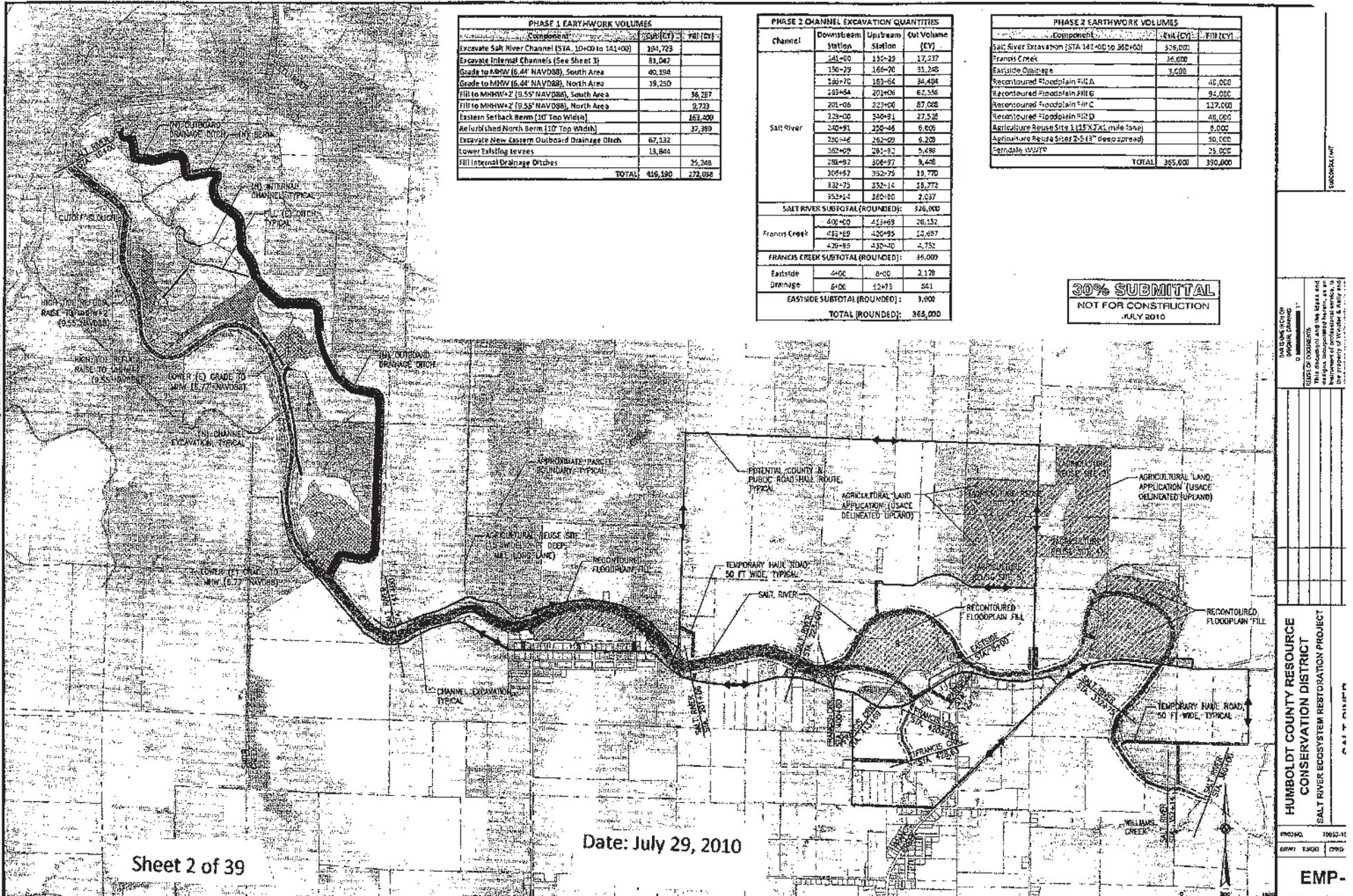
5. CONSIDERATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the proposed activity.

6. SUBMISSION OF COMMENTS: Interested parties may submit, in writing, any comments concerning this activity. Comments should include the applicant's name and the number and the date of this Public Notice, and should be forwarded so as to reach this office within the comment period specified on Page 1. Comments should be sent to the U.S. Army Corps of Engineers, San Francisco District, Regulatory Division, 1455 Market Street, San Francisco, California 94103-1398. It is the Corps' policy to forward any such comments that include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this Public Notice that a public hearing be held to consider this application. Requests

for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose name and address are indicated in the first paragraph of this Public Notice or by contacting David Ammerman of our office at telephone number 707-443-0855 or by electronic mail at: David.A.Ammerman@usace.army.mil. Details on any changes of a minor nature that are made in the final permit action will be provided upon request.



1A
Sheet 7 of 39



PHASE 1 EARTHWORK VOLUMES			
Component	Station	Exc (CY)	Fill (CY)
Excavate Salt River Channel (STA. 10+00 to 141+00)		194,723	
Excavate Internal Channels (See Sheet 3)		81,047	
Grade to MHW (6.44' NAVD88), South Area		60,194	
Grade to MHW (6.44' NAVD88), North Area		39,250	
Fill to MHW+2' (9.55' NAVD88), South Area			36,287
Fill to MHW+2' (9.55' NAVD88), North Area			9,723
Eastern Serback Berm (10' Top Width)			163,400
Relubricated North Berm (10' Top Width)			37,380
Excavate New Eastern Outboard Drainage Ditch		67,132	
Lower Existing Levees		13,844	
Fill Internal Drainage Ditches			25,248
TOTAL		416,190	272,056

PHASE 2 CHANNEL EXCAVATION QUANTITIES			
Channel	Downstream Station	Upstream Station	Cut Volume (CY)
Salt River	141+00	130+25	17,237
	150+75	146+70	33,246
	160+70	153+54	34,434
	169+54	167+06	62,556
	201+06	223+00	87,008
	229+00	240+91	27,526
	240+91	250+46	6,006
	250+46	262+09	6,209
	262+09	281+51	5,488
	281+51	306+87	9,448
	306+87	332+75	19,770
	332+75	352+14	16,772
	352+14	360+80	2,037
SALT RIVER SUBTOTAL (ROUNDED):			326,000
Francis Creek	400+00	419+68	20,132
	422+68	420+85	12,657
	420+85	430+00	4,730
FRANCIS CREEK SUBTOTAL (ROUNDED):			37,519
Eastside Drainage	4+00	8+00	2,128
	6+00	12+73	561
EASTSIDE SUBTOTAL (ROUNDED):			3,000
TOTAL (ROUNDED):			366,519

PHASE 2 EARTHWORK VOLUMES			
Component	Exc (CY)	Fill (CY)	
Salt River Excavation (STA 141+00 to 360+00)	326,000		
Francis Creek			36,000
Eastside Drainage			3,000
Recontoured Floodplain FILL A			40,000
Recontoured Floodplain FILL B			94,000
Recontoured Floodplain FILL C			117,000
Recontoured Floodplain FILL D			48,000
Agriculture Reuse Site 1 (15' X 21' mile lane)			6,000
Agriculture Reuse Site 2-5 (13" deep spread)			30,000
Grasshopper WATE			75,000
TOTAL	366,000	330,000	

30% SUBMITTAL
NOT FOR CONSTRUCTION
JULY 2010

HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT

SALT RIVER ECOSYSTEM RESTORATION PROJECT RIVERSIDE RANCH AND SALT RIVER RESTORATION PLANS JULY 2010

SHEET INDEX

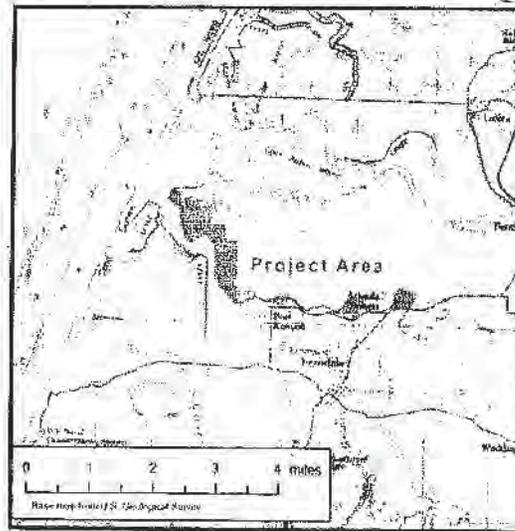
GENERAL SHEETS

- G-1 1 of 38 COVER SHEET
- G-2 2 of 38 GENERAL NOTES,
SYMBOLS & ABBREVIATIONS
- G-3 3 of 38 EROSION MANAGEMENT PLAN
- G-4 4 of 38 CONCEPTUAL WATER MANAGEMENT
CONTROL PLAN
- G-5 5 of 38 PLAN SHEET INDEX

RIVERSIDE RANCH - PHASE 1

- RR-1 6 of 38 RIVERSIDE RANCH SITE PLAN
- RR-2 7 of 38 RIVERSIDE RANCH SITE PLAN
- RR-3 8 of 38 RIVERSIDE RANCH SITE PLAN
- RR-4 9 of 38 RIVERSIDE RANCH SITE PLAN
- RR-5 10 of 38 RIVERSIDE RANCH SITE PLAN
- RR-6 11 of 38 RIVERSIDE RANCH SITE PLAN
- RR-7 12 of 38 RIVERSIDE RANCH SITE PLAN
- RR-8 13 of 38 RIVERSIDE RANCH SITE PLAN
- RR-9 14 of 38 RIVERSIDE RANCH CROSS-SECTIONS
- RR-10 15 of 38 RIVERSIDE RANCH CROSS-SECTIONS
- RR-11 16 of 38 RIVERSIDE RANCH PROFILES
- RR-12 17 of 38 RIVERSIDE RANCH DETAILS

30% SUBMITTAL



VICINITY MAP

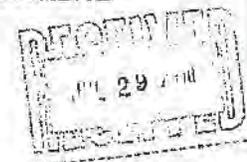
N.T.S.

SHEET INDEX CONT.

SALT RIVER - PHASE 2

- SR-1 18 of 38 SALT RIVER SITE PLAN
- SR-2 19 of 38 SALT RIVER SITE PLAN
- SR-3 20 of 38 SALT RIVER SITE PLAN
- SR-4 21 of 38 SALT RIVER SITE PLAN
- SR-5 22 of 38 SALT RIVER SITE PLAN
- SR-6 23 of 38 SALT RIVER SITE PLAN
- SR-7 24 of 38 SALT RIVER SITE PLAN
- SR-8 25 of 38 SALT RIVER SITE PLAN
- SR-9 26 of 38 SALT RIVER SITE PLAN
- SR-10 27 of 38 SALT RIVER PROFILES
- SR-11 28 of 38 SALT RIVER PROFILES
- SR-12 29 of 38 SALT RIVER PROFILES
- SR-13 30 of 38 SALT RIVER CROSS-SECTIONS
- SR-14 31 of 38 SALT RIVER CROSS-SECTIONS
- SR-15 32 of 38 SALT RIVER CROSS-SECTIONS
- SR-16 33 of 38 SALT RIVER CROSS-SECTIONS
- SR-17 34 of 38 SALT RIVER CROSS-SECTIONS
- EMP-1 35 of 38 SALT RIVER EARTHWORK
MANAGEMENT PLAN
- V-1 36 of 38 TYPICAL RE-VEG SECTIONS
- V-2 37 of 38 TYPICAL RE-VEG SECTIONS
- V-3 38 of 38 RE-VEGETATION PALETTE

PROJECT FUNDING:
CALIFORNIA COASTAL CONSERVANCY
CALIFORNIA WATER RESOURCES CONTROL BOARD



SCALE: AS SHOWN ON ORIGINAL DRAWING
1" = 1000'
This enclosure and the area it contains are for informational purposes only. It is not intended to be used for any other purpose without the written consent of the project manager.

HUMBOLDT COUNTY RESOURCE
CONSERVATION DISTRICT
SALT RIVER ECOSYSTEM RESTORATION PROJECT

PROJECT NO: 10055-10
SHEET NO: 0001

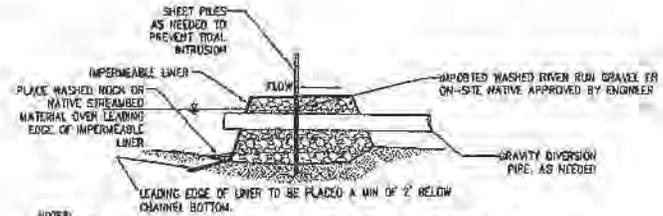
G-1

SHEET 1 OF 39

RIVERSIDE RANCH PHASE 1

WATER MANAGEMENT NOTES:

1. CONTRACTOR SHALL SUBMIT A WATER MANAGEMENT PLAN IN CONFORMANCE WITH PROJECT PERMITS AND THIS CONCEPT PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER.
2. COFFER DAM LOCATED IN SALT RIVER BELOW CONFLUENCE OF REAS CHECK TO BE LEFT IN PLACE BETWEEN PHASE 1 AND PHASE 2 AND MODIFIED AS NECESSARY TO PROVIDE FISH PASSAGE AND CHANNEL GRADE CONTROL.
3. CONTRACTOR SHALL COOPERATE WITH AQUATIC BIOLOGIST DURING AQUATIC SPECIES RELOCATION, PRIOR TO FISH SCREEN AND COFFER DAM INSTALLATION.



NOTES:

1. COFFER DAM TO BE DESIGNED AND MAINTAINED BY CONTRACTOR ACCORDING TO FIELD CONDITIONS. WATER MANAGEMENT PLAN CAN PROPOSE AN ALTERNATIVE COFFER DAM FOR APPROVAL.
2. OUTLET OF WATER DIVERSION PIPE TO BE PLACED ON A WASHED SIEBLE CHERRY DISSIPATER AND PLACED IN CHANNEL UPSTREAM OF THE DOWNSTREAM FISH SCREEN.
3. USE GRAVITY LINE AS MUCH AS PRACTICAL.



TEMPORARY COFFER DAM - SECTION DETAIL

SCALE: NOT TO SCALE

APPROPRIATE LOCATION OF DIVERSION PIPE, ELEVATIONS TO BE CONFIRMED

SALT RIVER - PHASE 2

DATE: 07/29/10
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 PROJECT: SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SHEET: G-4

HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
 CONCEPTUAL WATER MANAGEMENT CONTROL PLAN

DATE: 07/29/10
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 PROJECT: SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SHEET: G-4

File No. 2010-00282

Enclosure 1

Date: July 29, 2010



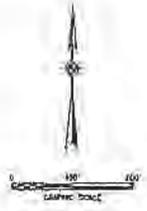
File No. 2010-00282

Enclosure 1

Date: July 29, 2010



30% SUBMITTAL
 NOT FOR CONSTRUCTION
 May 2010



MATCHLINE SHEET RR-3

AFTER NEW TERRACE AND ENVIRONMENTAL BUFFER EXCAVATION AND DRAINAGE DESIGN FOR THE PROJECT.



REMOVE CONCRETE AND REPAIR WITH NEW CONCRETE. REPAIR WITH NEW CONCRETE. REPAIR WITH NEW CONCRETE.

WATERWAY DESIGN AND SPECIFICATIONS



STATE OF DOCUMENTS
 This document is the property of Kanan Technology & Engineering, Inc. It is to be used only for the project and site identified herein. It is not to be used for any other project or site without the written consent of Kanan Technology & Engineering, Inc.

PROJECT NO.	2010-00282
DATE	May 2010
SCALE	AS SHOWN
DESIGNED BY	J. J. JENSEN
CHECKED BY	J. J. JENSEN
DATE	May 2010

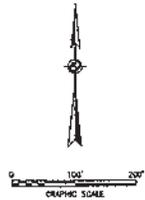
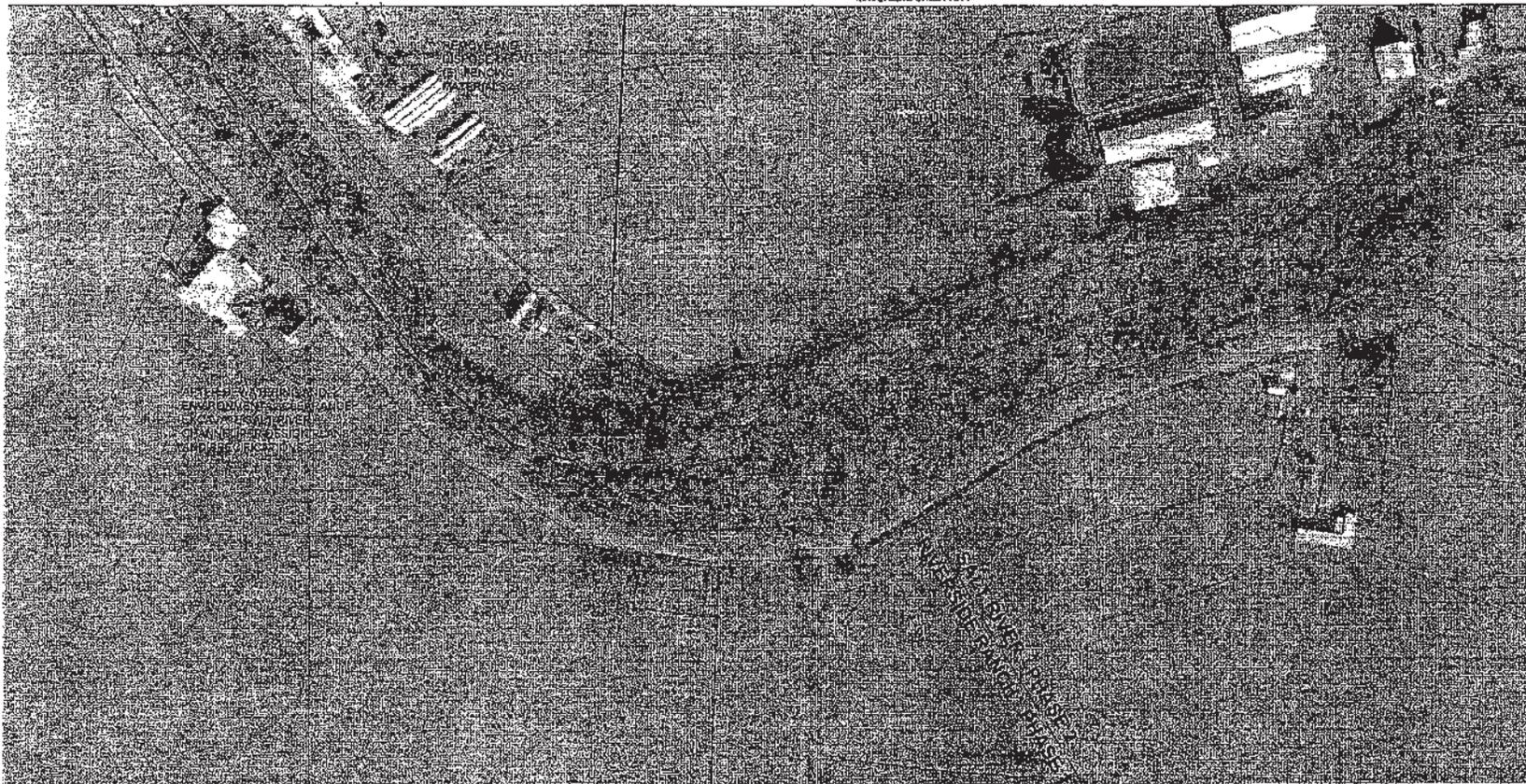
HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT
SALT RIVER CHANNEL RESTORATION
SITE PLAN

PROJECT NO. 2010-00282
 SHEET NO. 12 OF 39
RR-5

File No. 2010-00282

Enclosure 1

Date: July 29, 2010



30% SUBMITTAL
NOT FOR CONSTRUCTION
May 2010

SALT RESTORATION PROJECT SUBMITTAL

Hamman Hydrology & Engineering, Inc.



REUSE OF DOCUMENTS:
This document and the plans and designs contained herein are the property of Hamman Hydrology & Engineering, Inc. and shall not be used for any other project without the written consent of Hamman Hydrology & Engineering, Inc.

PROJECT NO.	100000000
DATE	10/1/09
SCALE	AS SHOWN
DATE	10/1/09
DESCRIPTION	SALT RESTORATION

**HUMBOLDT COUNTY RESOURCE
CONSERVATION DISTRICT
SALT RIVER CHANNEL RESTORATION**

PROJ. NO.: 1002
DRAWN: ALP CHECK: GAK

RR-8

SHEET 15 OF 39

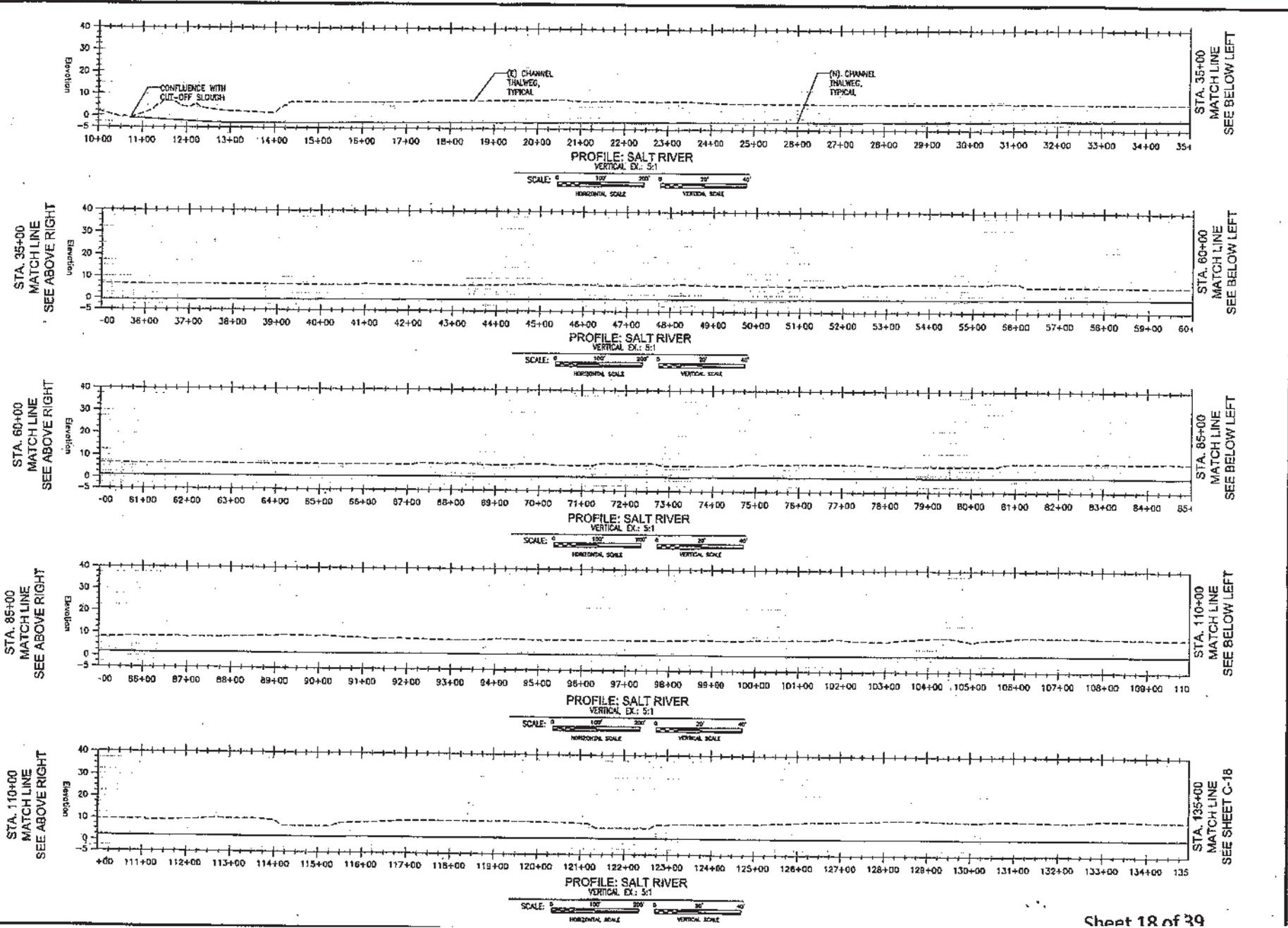
File No. 2010-00282

Enclosure 1

Date: July 29, 2010

Sheet 15 of 39

8/14/09 09:23 AM T:\WORK\1003\HUMBOLDT COUNTY RESOURCE CONSERVATION\DISTRICTS\1003-10\2010\1003-10-02-SALT RIVER\CD\2010-00282-01-SB-PROFILES.dwg

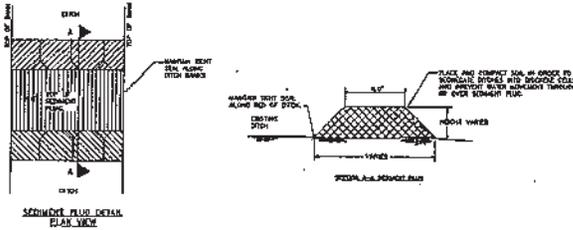


STA. 35+00 MATCH LINE SEE ABOVE RIGHT	STA. 35+00 MATCH LINE SEE BELOW LEFT
STA. 60+00 MATCH LINE SEE ABOVE RIGHT	STA. 60+00 MATCH LINE SEE BELOW LEFT
STA. 85+00 MATCH LINE SEE ABOVE RIGHT	STA. 85+00 MATCH LINE SEE BELOW LEFT
STA. 110+00 MATCH LINE SEE ABOVE RIGHT	STA. 110+00 MATCH LINE SEE BELOW LEFT
STA. 135+00 MATCH LINE SEE ABOVE RIGHT	STA. 135+00 MATCH LINE SEE BELOW LEFT

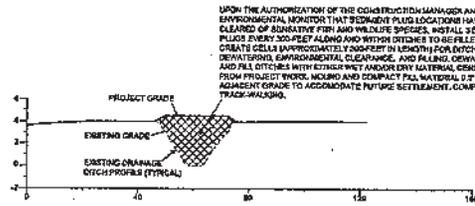
HUMBOLDT COUNTY RESOURCE
 CONSERVATION DISTRICT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT

PROJ. NO: 1003-10-02
 DRAWN: T.J.O. DATE: 7/29/10

RR-11

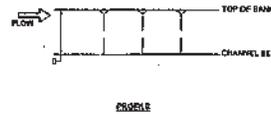
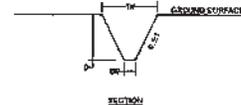
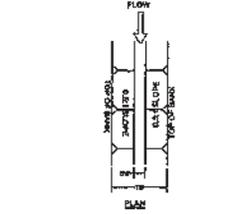


DITCH FILL - SEDIMENT PLUG
NOT TO SCALE



DITCH FILL - WET/DRY FILL WITH DRY CAP

UPON THE AUTHORIZATION OF THE CONSTRUCTION MANAGER AND ENVIRONMENTAL MONITOR THAT SEDIMENT PLUG LOCATIONS HAVE BEEN CLEARED OF SEDIMENTARY FISH AND WILDLIFE SPECIES, INSTALL SEDIMENT PLUGS EVERY 300 FEET ALONG AND WITHIN DITCHES TO BE FILLED TO CREATE CELLS APPROXIMATELY 500 FEET IN LENGTH FOR DITCH DEWATERING, ENVIRONMENTAL CLEARANCE, AND ISLAND DEVELOPMENT. AND ALL DITCHES WITH EXISTING WET AND/OR DRY MATERIAL DEREGULATED FROM PROJECT WORK, MOULD AND COMPACT FILL MATERIAL 2' ABOVE ADJACENT GRADE TO ACCOMMODATE FUTURE SETTLEMENT, COMPACT BY TRACK-WALKING.



SALT RIVER AND INTERNAL WETLAND CHANNEL DESIGN DETAILS
NOT TO SCALE

- NOTES:
1. TW = TOP WIDTH, BW = BOTTOM WIDTH, D = DEPTH
 2. SEE ADJACENT TABLES FOR SALT RIVER AND INTERNAL WETLAND CHANNEL DESIGN DIMENSIONS BY RIVER STATIONING.
 3. CONTRACTOR TO CREATE SMOOTH TRANSITIONS IN CHANNEL GEOMETRY BETWEEN CHANNEL STATIONS INDICATED ABOVE.

SALT RIVER CHANNEL DESIGN DETAILS

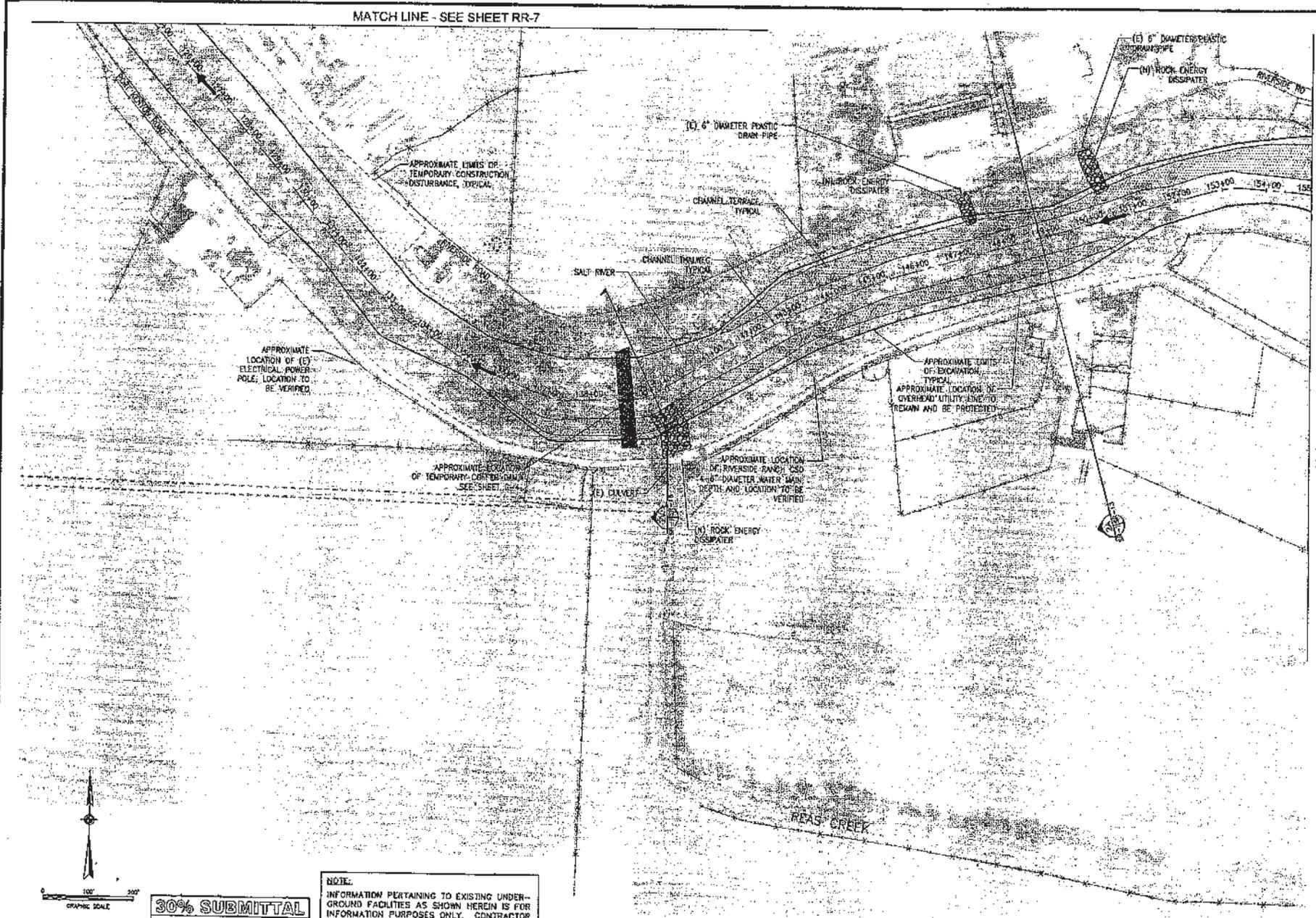
STATION (FEET)	WIDTH (FEET)	DEPTH (FEET)	APPROX. BOTTOM (FEET)	APPROX. TOP (FEET)	CHANNEL SOLE (FEET)
2070	17	1.4	8.2	9.6	8.8
2075	17	1.4	8.2	9.6	8.8
2080	18	1.4	7.9	9.3	8.5
2085	17	1.4	7.9	9.3	8.5
2090	17	1.4	7.9	9.3	8.5
2095	17	1.4	7.9	9.3	8.5
2100	17	1.4	7.9	9.3	8.5
2105	17	1.4	7.9	9.3	8.5
2110	17	1.4	7.9	9.3	8.5
2115	17	1.4	7.9	9.3	8.5
2120	17	1.4	7.9	9.3	8.5
2125	17	1.4	7.9	9.3	8.5
2130	17	1.4	7.9	9.3	8.5
2135	17	1.4	7.9	9.3	8.5
2140	17	1.4	7.9	9.3	8.5
2145	17	1.4	7.9	9.3	8.5
2150	17	1.4	7.9	9.3	8.5
2155	17	1.4	7.9	9.3	8.5
2160	17	1.4	7.9	9.3	8.5
2165	17	1.4	7.9	9.3	8.5
2170	17	1.4	7.9	9.3	8.5
2175	17	1.4	7.9	9.3	8.5
2180	17	1.4	7.9	9.3	8.5
2185	17	1.4	7.9	9.3	8.5
2190	17	1.4	7.9	9.3	8.5
2195	17	1.4	7.9	9.3	8.5
2200	17	1.4	7.9	9.3	8.5
2205	17	1.4	7.9	9.3	8.5
2210	17	1.4	7.9	9.3	8.5
2215	17	1.4	7.9	9.3	8.5
2220	17	1.4	7.9	9.3	8.5
2225	17	1.4	7.9	9.3	8.5
2230	17	1.4	7.9	9.3	8.5
2235	17	1.4	7.9	9.3	8.5
2240	17	1.4	7.9	9.3	8.5
2245	17	1.4	7.9	9.3	8.5
2250	17	1.4	7.9	9.3	8.5
2255	17	1.4	7.9	9.3	8.5
2260	17	1.4	7.9	9.3	8.5
2265	17	1.4	7.9	9.3	8.5
2270	17	1.4	7.9	9.3	8.5
2275	17	1.4	7.9	9.3	8.5
2280	17	1.4	7.9	9.3	8.5
2285	17	1.4	7.9	9.3	8.5
2290	17	1.4	7.9	9.3	8.5
2295	17	1.4	7.9	9.3	8.5
2300	17	1.4	7.9	9.3	8.5
2305	17	1.4	7.9	9.3	8.5
2310	17	1.4	7.9	9.3	8.5
2315	17	1.4	7.9	9.3	8.5
2320	17	1.4	7.9	9.3	8.5
2325	17	1.4	7.9	9.3	8.5
2330	17	1.4	7.9	9.3	8.5
2335	17	1.4	7.9	9.3	8.5
2340	17	1.4	7.9	9.3	8.5
2345	17	1.4	7.9	9.3	8.5
2350	17	1.4	7.9	9.3	8.5
2355	17	1.4	7.9	9.3	8.5
2360	17	1.4	7.9	9.3	8.5
2365	17	1.4	7.9	9.3	8.5
2370	17	1.4	7.9	9.3	8.5
2375	17	1.4	7.9	9.3	8.5
2380	17	1.4	7.9	9.3	8.5
2385	17	1.4	7.9	9.3	8.5
2390	17	1.4	7.9	9.3	8.5
2395	17	1.4	7.9	9.3	8.5
2400	17	1.4	7.9	9.3	8.5
2405	17	1.4	7.9	9.3	8.5
2410	17	1.4	7.9	9.3	8.5
2415	17	1.4	7.9	9.3	8.5
2420	17	1.4	7.9	9.3	8.5
2425	17	1.4	7.9	9.3	8.5
2430	17	1.4	7.9	9.3	8.5
2435	17	1.4	7.9	9.3	8.5
2440	17	1.4	7.9	9.3	8.5
2445	17	1.4	7.9	9.3	8.5
2450	17	1.4	7.9	9.3	8.5
2455	17	1.4	7.9	9.3	8.5
2460	17	1.4	7.9	9.3	8.5
2465	17	1.4	7.9	9.3	8.5
2470	17	1.4	7.9	9.3	8.5
2475	17	1.4	7.9	9.3	8.5
2480	17	1.4	7.9	9.3	8.5
2485	17	1.4	7.9	9.3	8.5
2490	17	1.4	7.9	9.3	8.5
2495	17	1.4	7.9	9.3	8.5
2500	17	1.4	7.9	9.3	8.5
2505	17	1.4	7.9	9.3	8.5
2510	17	1.4	7.9	9.3	8.5
2515	17	1.4	7.9	9.3	8.5
2520	17	1.4	7.9	9.3	8.5
2525	17	1.4	7.9	9.3	8.5
2530	17	1.4	7.9	9.3	8.5
2535	17	1.4	7.9	9.3	8.5
2540	17	1.4	7.9	9.3	8.5
2545	17	1.4	7.9	9.3	8.5
2550	17	1.4	7.9	9.3	8.5
2555	17	1.4	7.9	9.3	8.5
2560	17	1.4	7.9	9.3	8.5
2565	17	1.4	7.9	9.3	8.5
2570	17	1.4	7.9	9.3	8.5
2575	17	1.4	7.9	9.3	8.5
2580	17	1.4	7.9	9.3	8.5
2585	17	1.4	7.9	9.3	8.5
2590	17	1.4	7.9	9.3	8.5
2595	17	1.4	7.9	9.3	8.5
2600	17	1.4	7.9	9.3	8.5
2605	17	1.4	7.9	9.3	8.5
2610	17	1.4	7.9	9.3	8.5
2615	17	1.4	7.9	9.3	8.5
2620	17	1.4	7.9	9.3	8.5
2625	17	1.4	7.9	9.3	8.5
2630	17	1.4	7.9	9.3	8.5
2635	17	1.4	7.9	9.3	8.5
2640	17	1.4	7.9	9.3	8.5
2645	17	1.4	7.9	9.3	8.5
2650	17	1.4	7.9	9.3	8.5
2655	17	1.4	7.9	9.3	8.5
2660	17	1.4	7.9	9.3	8.5
2665	17	1.4	7.9	9.3	8.5
2670	17	1.4	7.9	9.3	8.5
2675	17	1.4	7.9	9.3	8.5
2680	17	1.4	7.9	9.3	8.5
2685	17	1.4	7.9	9.3	8.5
2690	17	1.4	7.9	9.3	8.5
2695	17	1.4	7.9	9.3	8.5
2700	17	1.4	7.9	9.3	8.5
2705	17	1.4	7.9	9.3	8.5
2710	17	1.4	7.9	9.3	8.5
2715	17	1.4	7.9	9.3	8.5
2720	17	1.4	7.9	9.3	8.5
2725	17	1.4	7.9	9.3	8.5
2730	17	1.4	7.9	9.3	8.5
2735	17	1.4	7.9	9.3	8.5
2740	17	1.4	7.9	9.3	8.5
2745	17	1.4	7.9	9.3	8.5
2750	17	1.4	7.9	9.3	8.5
2755	17	1.4	7.9	9.3	8.5
2760	17	1.4	7.9	9.3	8.5
2765	17	1.4	7.9	9.3	8.5
2770	17	1.4	7.9	9.3	8.5
2775	17	1.4	7.9	9.3	8.5
2780	17	1.4	7.9	9.3	8.5
2785	17	1.4	7.9	9.3	8.5
2790	17	1.4	7.9	9.3	8.5
2795	17	1.4	7.9	9.3	8.5
2800	17	1.4	7.9	9.3	8.5
2805	17	1.4	7.9	9.3	8.5
2810	17	1.4	7.9	9.3	8.5
2815	17	1.4	7.9	9.3	8.5
2820	17	1.4	7.9	9.3	8.5
2825	17	1.4	7.9	9.3	8.5
2830	17	1.4	7.9	9.3	8.5
2835	17	1.4	7.9	9.3	8.5
2840	17	1.4	7.9	9.3	8.5
2845	17	1.4	7.9	9.3	8.5
2850	17	1.4	7.9	9.3	8.5
2855	17	1.4	7.9	9.3	8.5
2860	17	1.4	7.9	9.3	8.5
2865	17	1.4	7.9	9.3	8.5
2870	17	1.4	7.9	9.3	8.5
2875	17	1.4	7.9	9.3	8.5
2880	17	1.4	7.9	9.3	8.5
2885	17	1.4	7.9	9.3	8.5
2890	17	1.4	7.9	9.3	8.5
2895	17	1.4	7.9	9.3	8.5
2900	17	1.4	7.9	9.3	8.5
2905	17	1.4	7.9	9.3	8.5
2910	17	1.4	7.9	9.3	8.5
2915	17	1.4	7.9	9.3	8.5
2920	17	1.4	7.9	9.3	8.5
2925	17	1.4	7.9	9.3	8.5
2930	17	1.4	7.9	9.3	8.5
2935	17	1.4	7.9	9.3	8.5
2940	17	1.4	7.9	9.3	8.5
2945	17	1.4	7.9	9.3	8.5
2950	17	1.4	7.9	9.3	8.5
2955	17	1.4	7.9	9.3	8.5
2960	17	1.4	7.9	9.3	8.5
2965	17	1.4	7.9	9.3	8.5
2970	17	1.4	7.9	9.3	8.5
2975	17	1.4	7.9	9.3	8.5
2980	17	1.4	7.9	9.3	8.5
2985	17	1.4	7.9	9.3	8.5
2990	17	1.4	7.9	9.3	8.5
2995	17	1.4	7.9	9.3	8.5
3000	17	1.4	7.9	9.3	8.5

- NOTES:
1. SEE DESIGN DETAIL FOR CHANNEL CROSS-SECTIONAL SHAPE.
 2. CONTRACTOR TO CREATE SMOOTH TRANSITIONS IN CHANNEL GEOMETRY BETWEEN CHANNEL STATIONS INDICATED ABOVE.

INTERNAL WETLAND CHANNEL DESIGN DETAILS

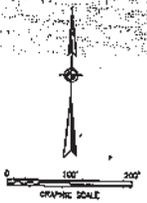
STATION (FEET)	WIDTH (FEET)	DEPTH (FEET)	APPROX. BOTTOM (FEET)	APPROX. TOP (FEET)	CHANNEL SOLE (FEET)
2070	17	1.4	8.2	9.6	8.8
2075	17	1.4	8.2	9.6	8.8
2080	18	1.4	7.9	9.3	8.5
2085	17	1.4	7.9	9.3	8.5
2090	17	1.4	7.9	9.3	8.5
2095	17	1.4	7.9	9.3	8.5
2100	17	1.4	7.9	9.3	8.5
2105	17	1.4	7.9	9.3	8.5
2110	17	1.4	7.9	9.3	8.5
2115	17	1.4	7.9	9.3	8.5
2120	17	1.4	7.9	9.3	8.5
2125	17	1.4	7.9	9.3	8.5
2130	17	1.4	7.9	9.3	8.5
2135	17	1.4	7.9	9.3	8.5
2140	17	1.4	7.9	9.3	8.5
2145	17	1.4	7.9	9.3	8.5
2150	17	1.4	7.9	9.3	8.5
2155	17	1.4	7.9	9.3	8.5
2160	17	1.4	7.9	9.3	8.5
2165					

MATCH LINE - SEE SHEET RR-7



MATCH LINE - SEE SHEET SR-2

HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT 15000 BUCKLEBUSH ROAD, SUITE 100, EUREKA, CA 95501
 HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT 15000 BUCKLEBUSH ROAD, SUITE 100, EUREKA, CA 95501



30% SUBMITTAL
 NOT FOR CONSTRUCTION
 JULY 2010

NOTE:
 INFORMATION PERTAINING TO EXISTING UNDERGROUND FACILITIES AS SHOWN HEREIN IS FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.

DATE OF REVISION	ORIGINAL DRAWING

HUMBOLDT COUNTY RESOURCE
 CONSERVATION DISTRICT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SALT RIVER SITE PLAN

PROJECT: 10653-10-00
 DRAWN: JLDG
 CHECK: JLDG

SR-1

MATCH LINE - SEE SHEET SR-2

APPROXIMATE LIMITS OF TEMPORARY CONSTRUCTION DISTURBANCE, TYPICAL.

APPROXIMATE LIMITS OF EXCAVATION, TYPICAL.

JOINT PIPE TO REMAIN AND BE PROTECTED.

(E) CONCRETE CULVERT SIZE AND INV. ELEVATION TBD.

TEMP. ACCESS ROAD (T)

DRAINAGE PLASTIC DRAIN (D) (T) POLYESTER (T) POLYESTER

(M) ROCK EMBANKMENT SURFACE

(C) ITEMS TO BE REMOVED WITHIN LIMITS OF EXCAVATION, TYPICAL.

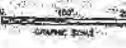
CHANNEL WALLS, TYPICAL.

CHANNEL TERRACE, TYPICAL.

POINT KOTON JO.

NOTE: INFORMATION PERTAINING TO EXISTING GROUND CONDITIONS AS SHOWN HEREON IS FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.

30% SUBMITTAL
NOT FOR CONSTRUCTION
JULY 2010



PILLON TO

MATCH LINE - SEE SHEET SR-4

HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT
SALT RIVER ECOSYSTEM RESTORATION PROJECT
SALT RIVER SITE PLAN

PROJECT: 10855-10-02
DRAWN: TWP/D CHD: AJS

SR-3

SHEET 20 OF 24

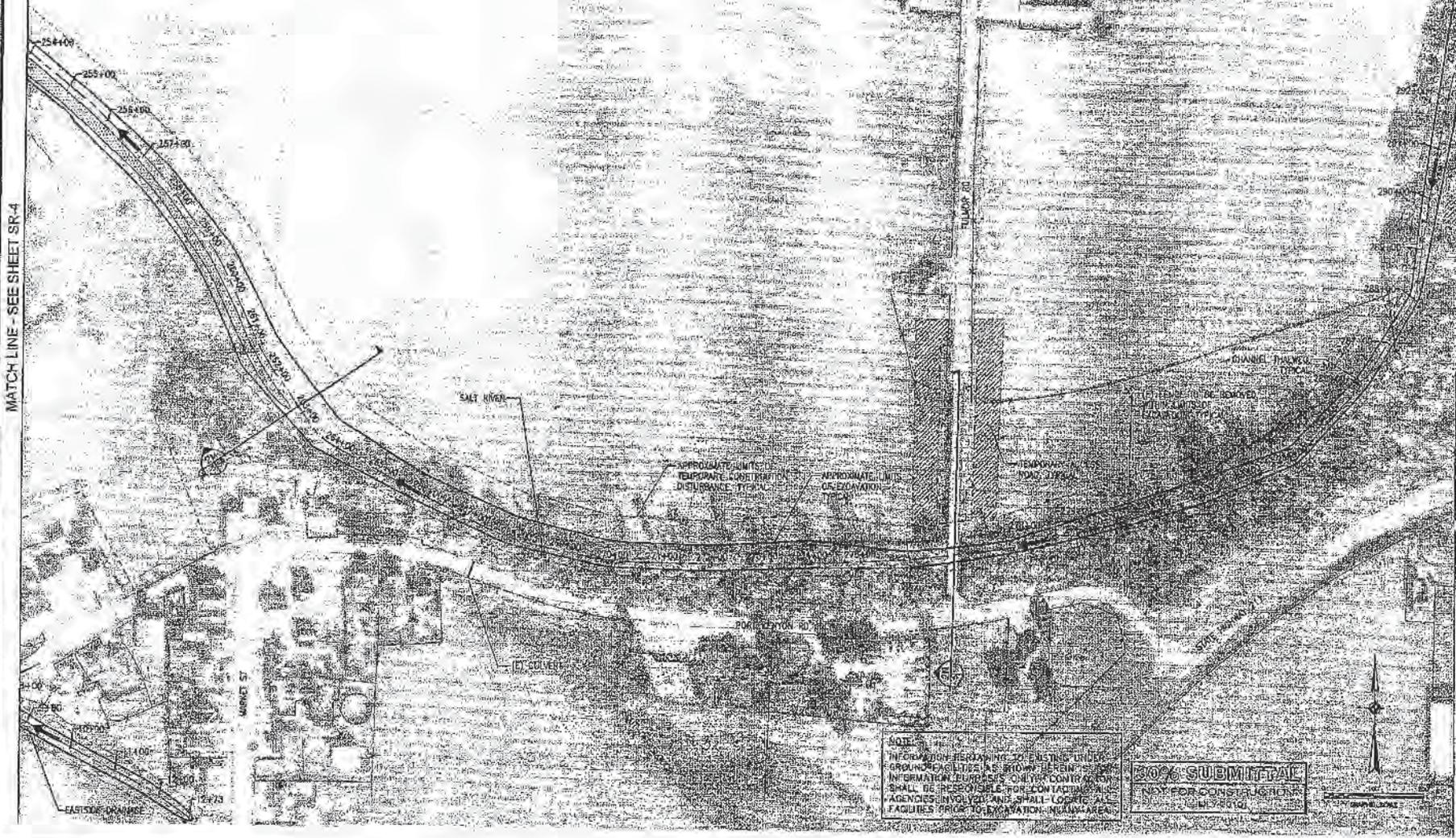
FOR CONSTRUCTION SPECIAL ORDERING
PROJECT NO. 10855-10-02
DATE: 7/29/10
THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN ARE FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.
FOR ANY OTHER PROJECT WITHOUT WRITING

File No. 2010-00282

Enclosure 1

Date: July 29, 2010

S:\PROJECTS\2010\2010-00282\2010-00282.dwg



NOTE:
 INFORMATION REGARDING THE EXISTING UNDERGROUND UTILITIES IS SHOWN HEREIN. INFORMATION PURSUANT TO THE CENTER POINT SHALL BE RESPONSIBLE FOR CONTACTING AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.

2010 SUBMITTAL
 BODY FOR CONSTRUCTION

MATCH LINE - SEE SHEET SR-6

MATCH LINE - SEE SHEET SR-7

HUMBOLDT COUNTY RESOURCE
 CONSERVATION DISTRICT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SALT RIVER SITE PLAN

PROJ. NO.: 10003-10-003
 DRAWN: TSGG
 CHECK: JAV

SR-5

SHEET 22 OF 24

MATCH LINE - SEE SHEET SR-5

SR-5, SR-6, SR-7, SR-8, SR-9, SR-10, SR-11, SR-12, SR-13, SR-14, SR-15, SR-16, SR-17, SR-18, SR-19, SR-20, SR-21, SR-22, SR-23, SR-24, SR-25, SR-26, SR-27, SR-28, SR-29, SR-30, SR-31, SR-32, SR-33, SR-34, SR-35, SR-36, SR-37, SR-38, SR-39, SR-40, SR-41, SR-42, SR-43, SR-44, SR-45, SR-46, SR-47, SR-48, SR-49, SR-50, SR-51, SR-52, SR-53, SR-54, SR-55, SR-56, SR-57, SR-58, SR-59, SR-60, SR-61, SR-62, SR-63, SR-64, SR-65, SR-66, SR-67, SR-68, SR-69, SR-70, SR-71, SR-72, SR-73, SR-74, SR-75, SR-76, SR-77, SR-78, SR-79, SR-80, SR-81, SR-82, SR-83, SR-84, SR-85, SR-86, SR-87, SR-88, SR-89, SR-90, SR-91, SR-92, SR-93, SR-94, SR-95, SR-96, SR-97, SR-98, SR-99, SR-100



NOTE
 INFORMATION PERTAINING TO EXISTING UNDERGROUND FACILITIES AS SHOWN HEREIN IS FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.

30% SUBMITTAL
 PLAN FOR CONSTRUCTION



DATE: 07/29/10
 PROJECT: SR-7
 SHEET: 26 OF 39

**HUMBOLDT COUNTY RESURGE
 CONSERVATION DISTRICT**
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SALT RIVER SITE PLAN

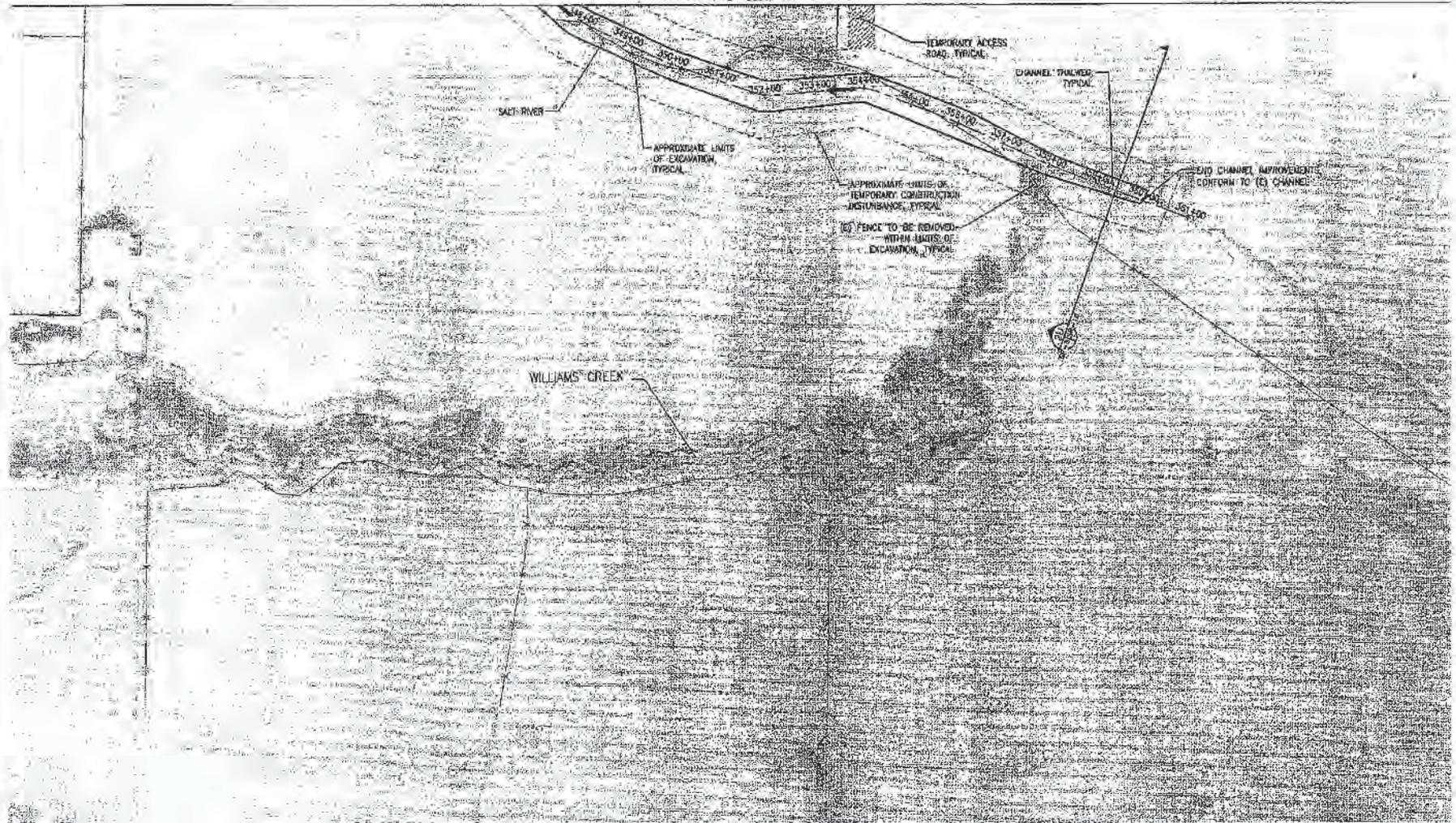
PROJECT: SR-7
 SHEET: 26 OF 39
SR-7
 SHEET 26 OF 39

File No. 2010-00282

Enclosure 1

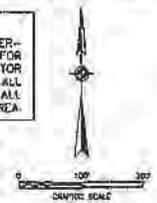
Date: July 29, 2010

20100729 09:14 AM CLARKS
 H:\PROJECTS\2010\20100729\20100729.DWG



NOTE:
 INFORMATION PERTAINING TO EXISTING UNDERGROUND FACILITIES AS SHOWN HEREIN IS FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.

30% SUBMITTAL
 NOT FOR CONSTRUCTION
 JULY 2010



HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT SALT RIVER ECOSYSTEM RESTORATION PROJECT SALT RIVER SITE PLAN	
PROJECT NO.	10053-10-002
DRAWN BY	JLH
CHECKED BY	DF
SR-8	
SHEET 27 OF 39	

File No. 2010-00282

Sheet 27 of 39

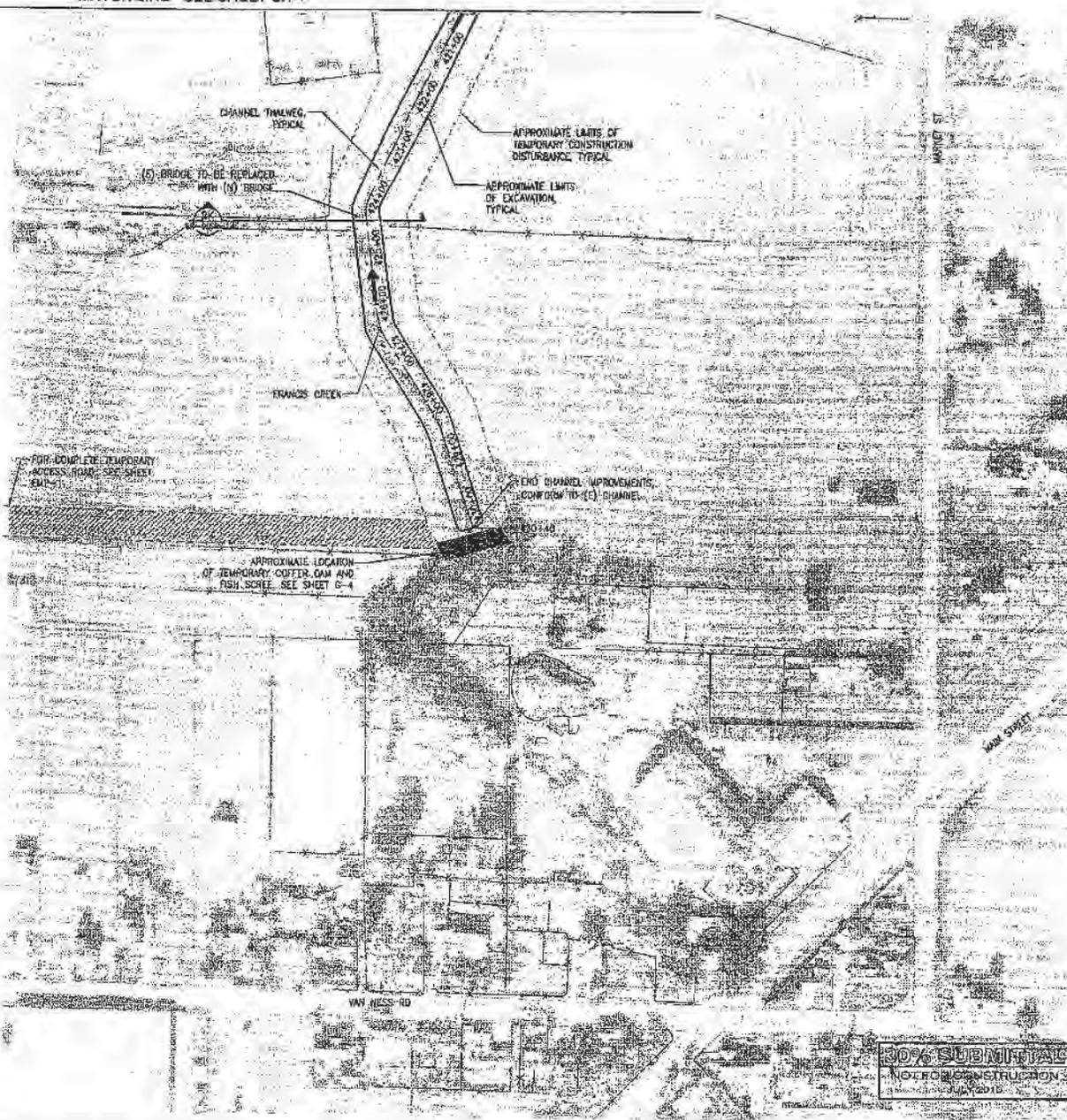
Enclosure 1

Date: July 29, 2010

File No. 2010-00282

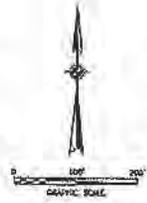
Enclosure 1

Date: July 29, 2010



NOTE:
 INFORMATION PERTAINING TO EXISTING UNDERGROUND FACILITIES AS SHOWN HEREIN IS FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA.

90% SUBMITTAL
NOT FOR CONSTRUCTION
 10/20/10



2010/07/29 10:58 PM T:\AMES\PROJECTS\2010\2010-00282\2010-00282-ENCLOSURE1\2010-00282-ENCLOSURE1-28.DWG

ALL RIGHTS RESERVED
 © 2010
 THIS DOCUMENT AND THE WORK AND DESIGN HEREON ARE THE PROPERTY OF HUNDT & ASSOCIATES, INC. AND SHALL BE KEPT IN CONFIDENCE AND NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

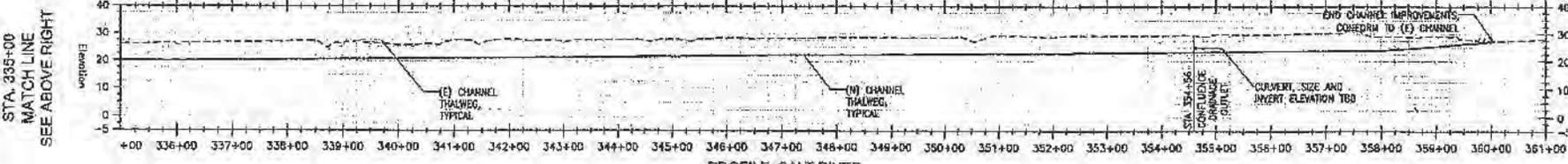
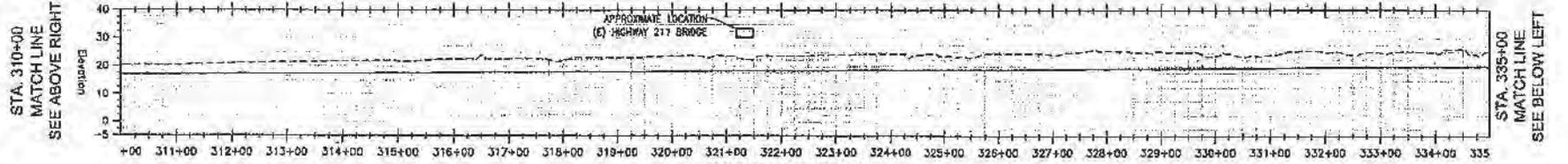
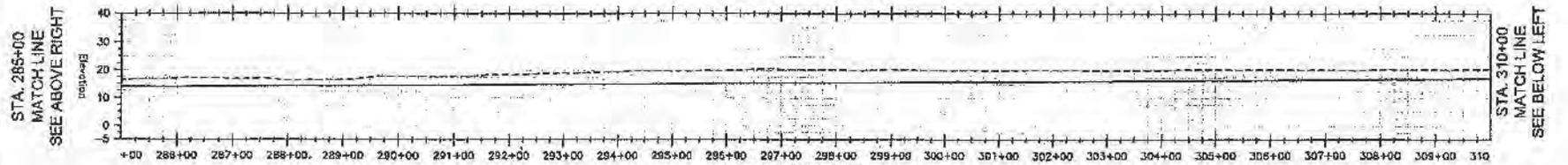
**HUMBOLDT COUNTY RESOURCE
 CONSERVATION DISTRICT**
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
SALT RIVER SITE PLAN

PROJECT: 10655-10-002
 DRAWN: JAKED
 CHECKED: JSL

SR-9

SHEET 28 OF 38

DATE: 07/29/2010 11:52 AM
 USER: JACOB
 PROJECT: HUMBOLDT COUNTY RESTORATION DISTRICT SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SHEET: SR-11



HUMBOLDT COUNTY RESTORATION DISTRICT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SALT RIVER PROFILES

DATE	07/29/2010
PROJECT	HUMBOLDT COUNTY RESTORATION DISTRICT SALT RIVER ECOSYSTEM RESTORATION PROJECT
PROJECT NO.	10653-10-000
DATE	07/29/2010
PROJECT	HUMBOLDT COUNTY RESTORATION DISTRICT SALT RIVER ECOSYSTEM RESTORATION PROJECT
PROJECT NO.	10653-10-000
DATE	07/29/2010
PROJECT	HUMBOLDT COUNTY RESTORATION DISTRICT SALT RIVER ECOSYSTEM RESTORATION PROJECT
PROJECT NO.	10653-10-000

SR-11

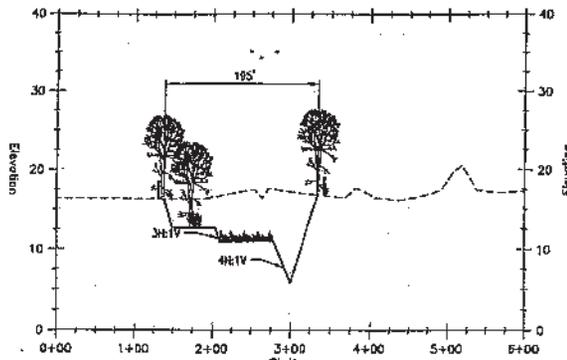
File No. 2010-00282

Enclosure 1

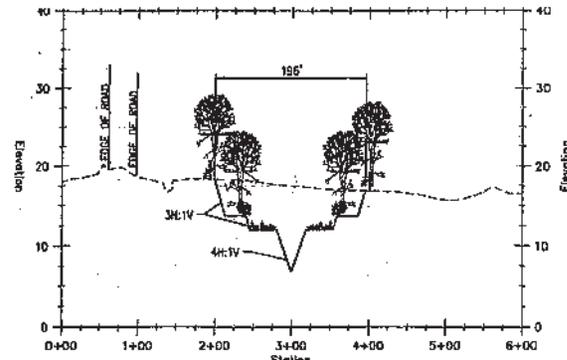
Date: July 29, 2010

Sheet 30 of 39

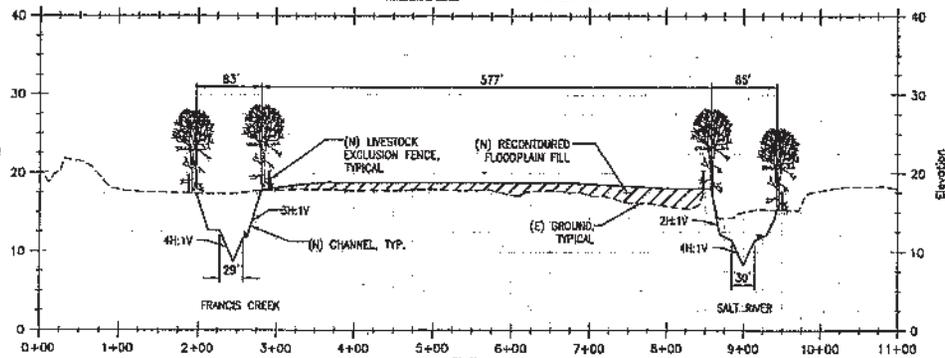
2010-07-29 4:28 PM JAMES
 H:\PROJECTS\2010\SR-14\2010-07-29 4:28 PM JAMES



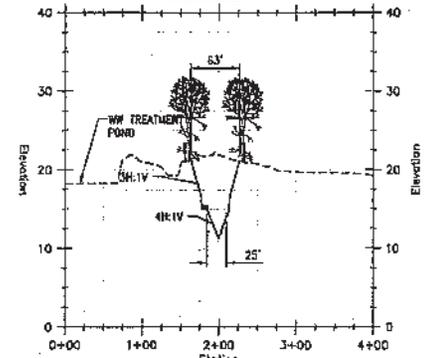
2F
 SR-4 SR-13 SCALE: 0 80' 160' 0 8' 16'
 HORIZONTAL SCALE VERTICAL SCALE
 CHANNEL CROSS-SECTION
 VERTICAL EX.: 10:1



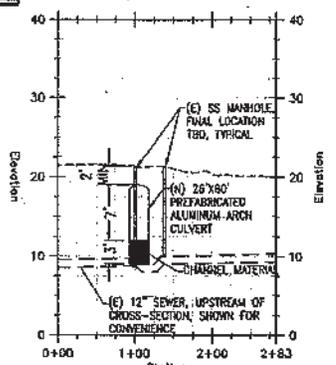
2F
 SR-4 SR-13 SCALE: 0 80' 160' 0 8' 16'
 HORIZONTAL SCALE VERTICAL SCALE
 CHANNEL CROSS-SECTION
 VERTICAL EX.: 10:1



2G
 SR-4 SR-13 SCALE: 0 80' 160' 0 8' 16'
 HORIZONTAL SCALE VERTICAL SCALE
 CHANNEL CROSS-SECTION
 VERTICAL EX.: 10:1

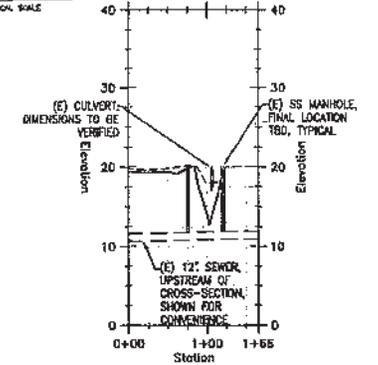


2H
 SR-4 SR-14 SCALE: 0 80' 160' 0 8' 16'
 HORIZONTAL SCALE VERTICAL SCALE
 CHANNEL CROSS-SECTION
 VERTICAL EX.: 10:1



2I
 SR-4 SR-14 SCALE: 0 80' 160' 0 8' 16'
 HORIZONTAL SCALE VERTICAL SCALE
 CHANNEL CROSS-SECTION
 VERTICAL EX.: 10:1

30% SUBMITTAL
 NOT FOR CONSTRUCTION
 JULY 2010



2J
 SR-4 SR-14 SCALE: 0 80' 160' 0 8' 16'
 HORIZONTAL SCALE VERTICAL SCALE
 CHANNEL CROSS-SECTION
 VERTICAL EX.: 10:1

THIS DRAWING IS THE PROPERTY OF HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT. IT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

NO.	DATE	DESCRIPTION

HUMBOLDT COUNTY RESOURCE
 CONSERVATION DISTRICT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SALT RIVER CROSS-SECTIONS

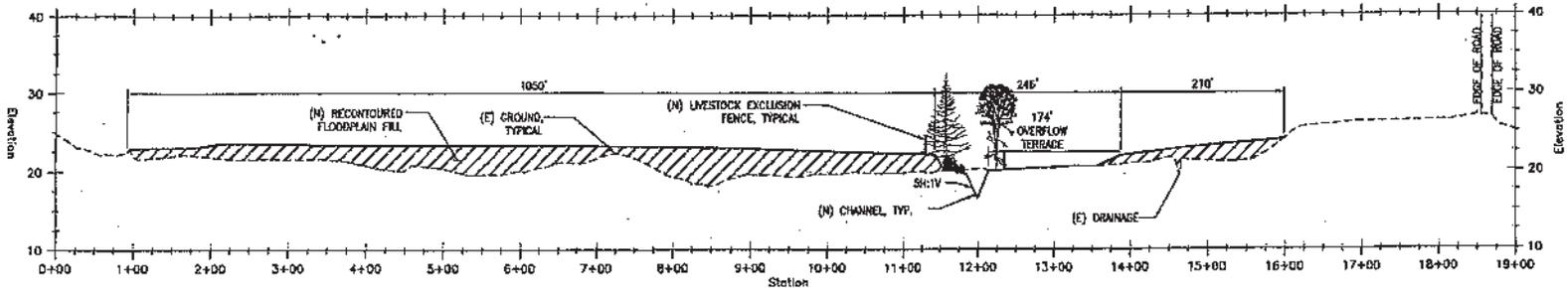
PROJECT: 10652-10-002
 DRAWN: YJSG/ JGW/JL
SR-14
 SHEET 31 OF 39

File No. 2010-00282

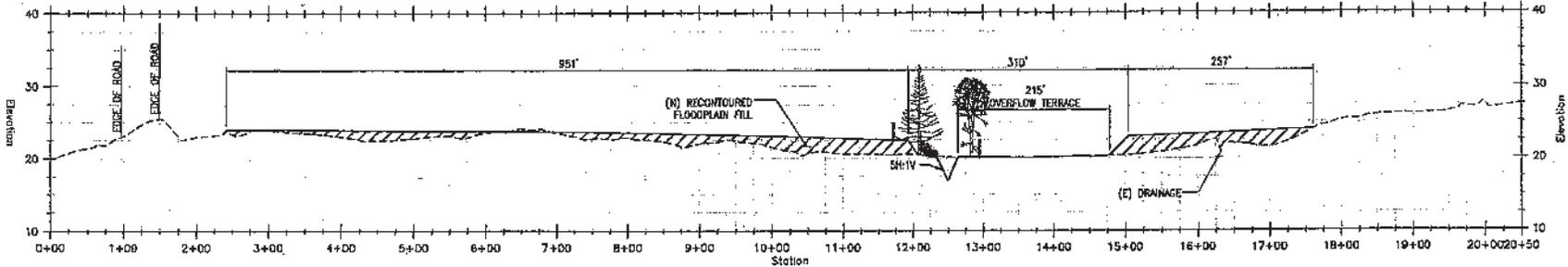
Enclosure 1

Date: July 29, 2010

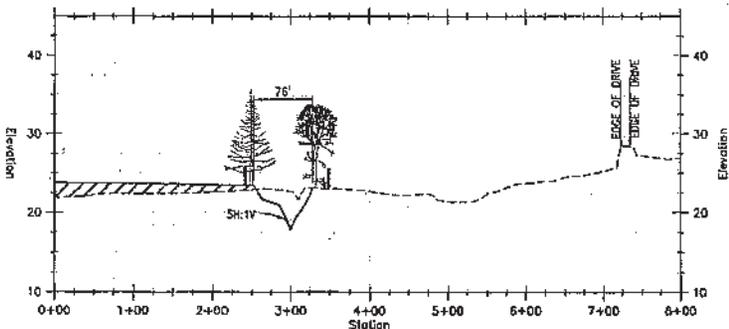
2010029, 800 PM, JAMES W. SARGENT/PROJ. 05/25/2010 & REVISIONS HUMBOLDT COUNTY RESOURCE CONSERVATION DIVISION 11/15/2013-03:02 SALTPH/04/03/2014 10:05 15:00 (N)S1000, 04-SR-16.DWG



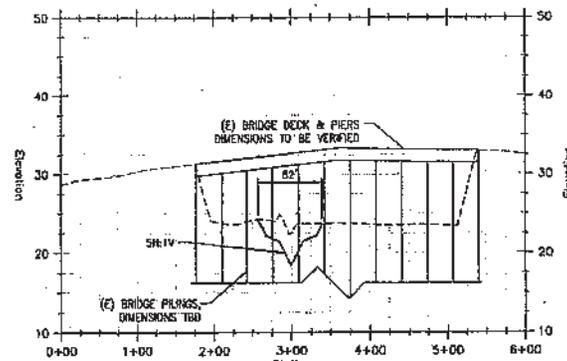
2P
SR-6|SR-15 SCALE: 1" = 100' HORIZONTAL SCALE, 1" = 10' VERTICAL SCALE
CHANNEL CROSS-SECTION
VERTICAL EX.: 10:1



2Q
SR-6|SR-15 SCALE: 1" = 100' HORIZONTAL SCALE, 1" = 10' VERTICAL SCALE
CHANNEL CROSS-SECTION
VERTICAL EX.: 10:1



2R
SR-6|SR-16 SCALE: 1" = 100' HORIZONTAL SCALE, 1" = 10' VERTICAL SCALE
CHANNEL CROSS-SECTION
VERTICAL EX.: 10:1



2S
SR-6|SR-16 SCALE: 1" = 100' HORIZONTAL SCALE, 1" = 10' VERTICAL SCALE
HWY 211 CROSSING
VERTICAL EX.: 10:1

30% SUBMITTAL
NOT FOR CONSTRUCTION
JULY 2010

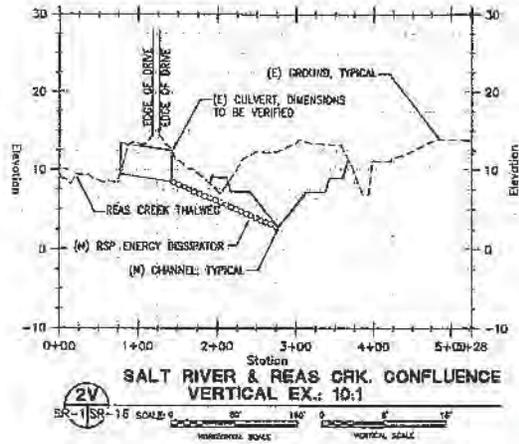
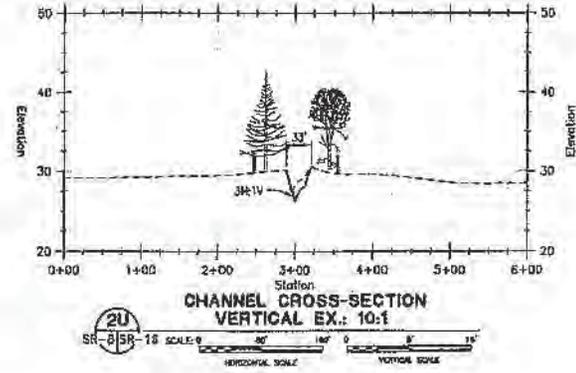
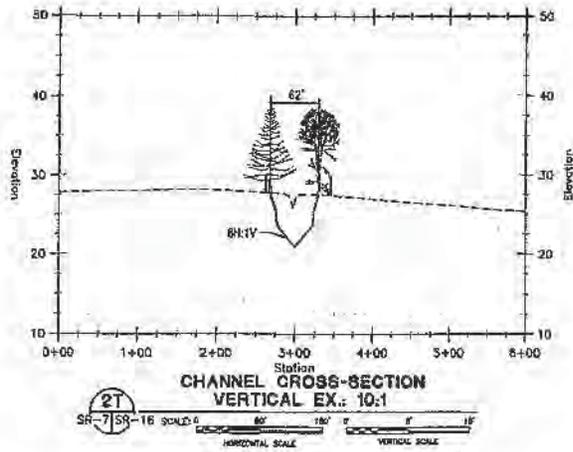
SUBCONSULTANT	
DESIGNED BY	DATE
CHECKED BY	DATE
HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT SALT RIVER ECOSYSTEM RESTORATION PROJECT	
PROJECT NO.	10433-10-00
DRAWN	TJ/DJ CWD, JS
SR-16	
SHEET 33 OF 34	

File No. 2010-00282

Enclosure 1

Date: July 29, 2010

Sheet 35 of 39



DATE OF REVIEW: 07/29/10
 DRAWN: [blank]
 CHECKED: [blank]
 TITLE OF DOCUMENT: [blank]
 THIS DOCUMENT AND THE DATA AND INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF WILSON & PATRICK AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF WILSON & PATRICK.

HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT

30% SUBMITTAL
 NOT FOR CONSTRUCTION
 JULY 2010

FIGURE NO: 10853-16-002
 SHEET TAG: 0800 25
SR-17
 SHEET 54 OF 54

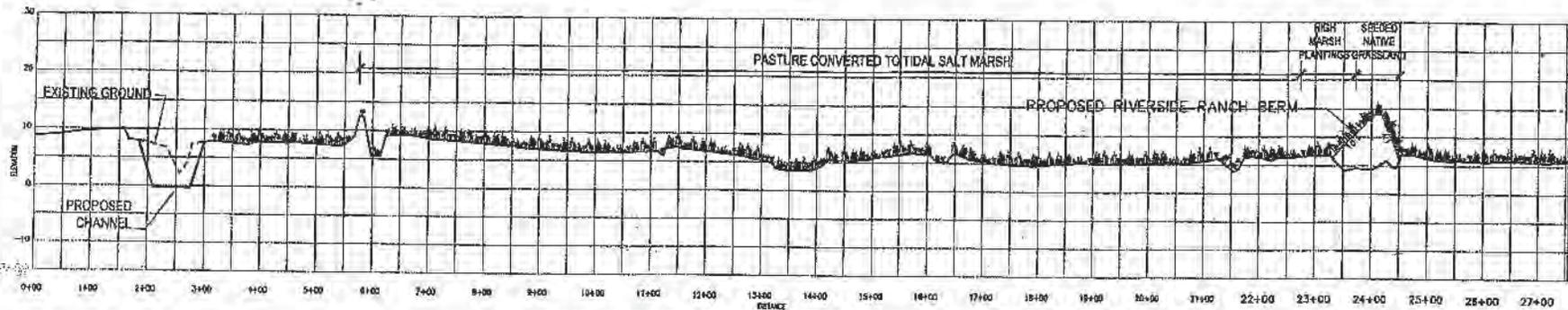
File No. 2010-00282

Enclosure 1

Date: July 29, 2010

Sheet 36 of 39

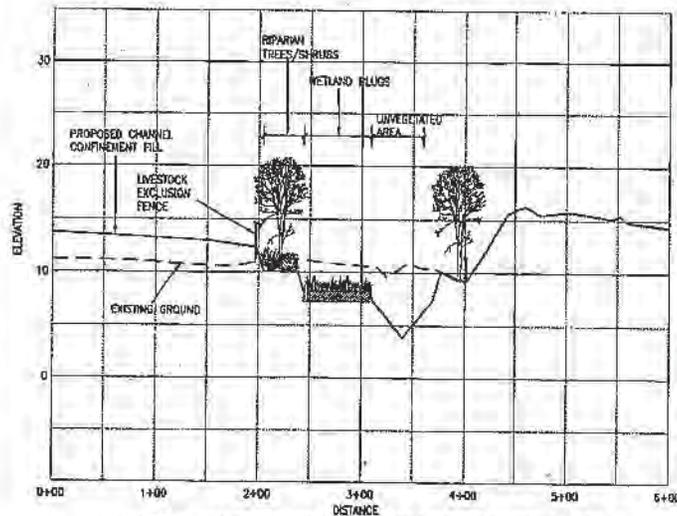
DRAWN BY: J. J. JAMES
 REVISIONS: PROJECT NUMBER & REVISIONS: HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT: 10033-10-002 (REV. 10-2008) (S&B) - HUMBOLDT COUNTY



TYPICAL CROSS-SECTION FROM STA 10+00 TO STA 121+00
 TIDAL SALT MARSH

<p>0 20' 40' HORIZONTAL SCALE 0 10' 20' VERTICAL SCALE</p>		
TIDAL SALT MARSH PLAIN SPECIES*	HIGH MARSH SPECIES*	SEEDED NATIVE GRASSLAND*
PICKLEWEED (SARGOCCORRA PACIFICA)	SALTGRASS (DISTICHUS SPICATA)	MEADOW BARLEY (HORDEUM BRACHYANTHERUM)
SLOUGH SEDGE (CAREX OBNUPATA)	JAIJUEA (JAJUEA CARNOSA)	WESTERN BENTGRASS (ACROSTIS EKERATA)
SALTGRASS (DISTICHUS SPICATA)	SLENDER ARROWGRASS (TRIGLOCHIN SP.)	GOLDEN EYED GRASS (SISYRINCHIUM CALIFORNICUM)
JAIJUEA (JAJUEA CARNOSA)	SAUPLANT (COPRODELLA STRICTA)	TUFTED HARRGRASS (DESCHAMPSIA CESPIOSA SPP. HOLCIFORMIS)
SLENDER ARROWGRASS (TRIGLOCHIN SP.)	SEA LAVENOOR (LIMNOLINUM CALIFORNICUM)	
CLAMPLANT (ORABOELLA STRICTA)		
SPEARSCALE (ATRIPLEX PATULA)		
SAND SPURRY (SPERGLARIA SP.)		

*SEE TABLES ON SHEET V-3 FOR ADDITIONAL DETAILS. ALL RE-VEG DATA PROVIDED BY H.T. HARVEY & ASSOCIATES



TYPICAL CROSS-SECTION FROM STA 121+00 TO STA 231+00
 SPRUCE DOMINATED RIPARIAN FOREST WITH BRACKISH MARSH

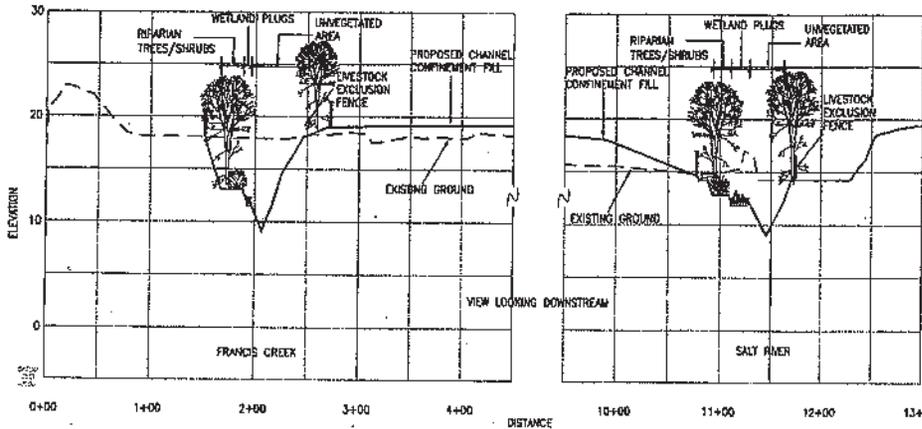
RIPARIAN TREES*	
SIWA SPRUCE (PICEA SICHENENS) (50%)	
RED ALDER (ALNUS RUBRA) (5%)	
RIPARIAN SHRUBS/TREES*	
CALIFORNIA WAX MYRTLE (MYRTICA CALIFORNICA)	
TRINASSERRY (LOWICERA ANGLICORATA)	
DISCOPIA BUCKTHORN (RHAMNUS PUSHANA)	
THIMBLEBERRY (RUBUS PARVIFLORA)	
SALMONBERRY (RUBUS SPECIOSUS)	
MOSQUITO FERN (ASOLLA FILICULOIDES)	
GIANT CHAIN FERN (WOODWARDIA FIMBRATA)	
SWORD FERN (POLYSTICHUM MUNITUM)	
SPREADING WOOD FERN (DRYOPTERIS EXPANSA)	
WETLAND PLUGS*	
TUFTED HARRGRASS (DESCHAMPSIA CESPIOSA)	
SALT RUSH (JUNCUS LESUEURII)	
SPIKE RUSH (ELEOCHARIS MACROSTACHYA)	
COMMON RUSH (JUNCUS PATENS)	
SALVAGED PLUGS (NATIVE PLANTS ONLY)	
COMPONENT FILL AREA*	
CLOVER (TRIFOLIUM REPENS)	
RYEGRASS (LOLIUM PERENNE)	

*SEE TABLES ON SHEET V-3 FOR ADDITIONAL DETAILS. ALL RE-VEG DATA PROVIDED BY H.T. HARVEY & ASSOCIATES

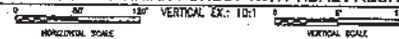
30% SUBMITTAL
 NOT FOR CONSTRUCTION
 JULY 2010

HUMBOLDT COUNTY RESOURCE
 CONSERVATION DISTRICT
 SALT RIVER ECOSYSTEM RESTORATION PROJECT
 TYPICAL RE-VEG SECTIONS

PROJECT: 10033-10-002
 DRAWN: T.JOGG DWG#: 2326
 SHEET 28 OF 28



TYPICAL CROSS-SECTION FROM STA 231+00 TO STA 265+00
SPRUCE COTTONWOOD RIPARIAN FOREST WITH TIDAL FRESHWATER MARSH



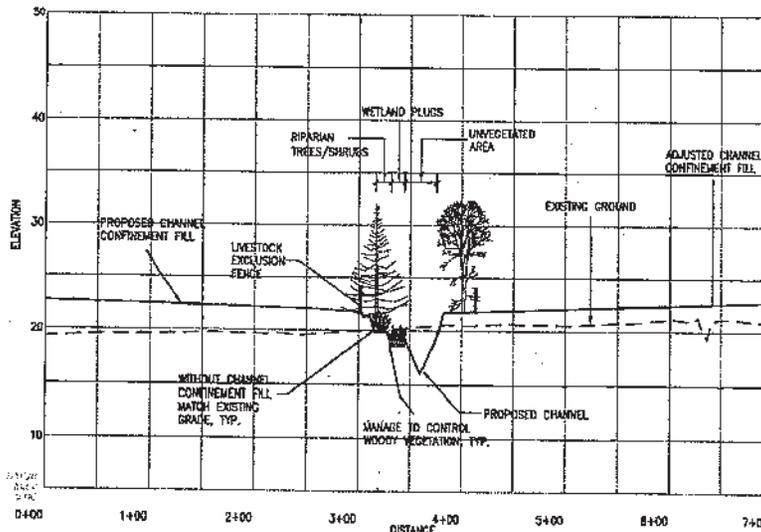
RIPARIAN TREES*		
SITKA SPRUCE	(PICEA SITCHENSIS)	(50%)
BLACK COTTONWOOD	(POPULUS BALSMIFERA SPP. TRICHOCARPA)	(30%)
REDWOOD	(SEQUOIA SEMPERVIRENS)	(5%)
GRAND FIR	(ABIES GRANDIS)	(5%)
RED ALDER	(ALNUS RUBRA)	(5%)
BIGLEAF MAPLE	(ACER MACROPHYLLUM)	(5%)

RIPARIAN SHRUBS/FERNS*		
RED CURRANT	(RIBES SANGUINEUM)	
TWINBERRY	(LONICERA INCLUCRATA)	
CASCARA BUCKTHORN	(RHAMNUS PURSHIANA)	
CALIFORNIA WAX MYRTLE	(MYRTICA CALIFORNICA)	
THIMBLEBERRY	(RUBUS PARVIFLORA)	
SALMONBERRY	(RUBUS SPECTABILIS)	
RED ELDERBERRY	(SAMBUCUS RACEMOSA)	
MOSQUITO FERN	(AZOLLA FILICULOIDES)	
GIANT CHAIN FERN	(WOODWARDIA FIMBRILATA)	
SWORD FERN	(POLYSTICHUM MUNITUM)	
SPREADING WOOD FERN	(DRYOPTERIS EXPANSA)	

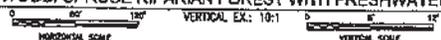
CONFINEMENT FILL AREA*		
CLOVER	(TRIFOLIUM REPERS)	
RYEGRASS	(LOLIUM PERENNE)	

WETLAND PLUGS*		
SLOUGH SEDGE	(CAREX OBLIQUA)	
SPRIE RUSH	(ELEOCHARIS MACROSTACHYA)	
TUFTED HAIRGRASS	(DESCHAMPIA CAESPITOSA)	
COMMON RUSH	(JUNCUS PATENS)	
SALVAGED PLUGS	(NATIVE PLANTS ONLY)	

SEE TABLES ON SHEET V-3
FOR ADDITIONAL DETAILS. ALL RE-VEG DATA
PROVIDED BY H.T. HARVEY & ASSOCIATES



TYPICAL CROSS-SECTION FROM STA 285+00 TO STA 361+00
COTTONWOOD/SPRUCE RIPARIAN FOREST WITH FRESHWATER MARSH



RIPARIAN TREES*		
BLACK COTTONWOOD	(POPULUS BALSMIFERA SPP. TRICHOCARPA)	(40%)
SITKA SPRUCE	(PICEA SITCHENSIS)	(35%)
REDWOOD	(SEQUOIA SEMPERVIRENS)	(10%)
GRAND FIR	(ABIES GRANDIS)	(5%)
RED ALDER	(ALNUS RUBRA)	(5%)
BIGLEAF MAPLE	(ACER MACROPHYLLUM)	(5%)

RIPARIAN SHRUBS/FERNS*		
TWINBERRY	(LONICERA INCLUCRATA)	
CASCARA BUCKTHORN	(RHAMNUS PURSHIANA)	
CALIFORNIA WAX MYRTLE	(MYRTICA CALIFORNICA)	
THIMBLEBERRY	(RUBUS PARVIFLORA)	
SALMONBERRY	(RUBUS SPECTABILIS)	
RED ELDERBERRY	(SAMBUCUS RACEMOSA)	
MOSQUITO FERN	(AZOLLA FILICULOIDES)	
GIANT CHAIN FERN	(WOODWARDIA FIMBRILATA)	
SWORD FERN	(POLYSTICHUM MUNITUM)	
SPREADING WOOD FERN	(DRYOPTERIS EXPANSA)	

CONFINEMENT FILL AREA*		
CLOVER	(TRIFOLIUM REPERS)	
RYEGRASS	(LOLIUM PERENNE)	

WETLAND PLUGS*		
SLOUGH SEDGE	(CAREX OBLIQUA)	
SPRIE RUSH	(ELEOCHARIS MACROSTACHYA)	
SALVAGED PLUGS	(NATIVE PLANTS ONLY)	

SEE TABLES ON SHEET V-3
FOR ADDITIONAL DETAILS. ALL RE-VEG DATA
PROVIDED BY H.T. HARVEY & ASSOCIATES

