STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

In the Matter of Water Quality Certification for the

EL DORADO IRRIGATION DISTRICT
OYSTER CREEK STABILIZATION PROJECT

SOURCE: Oyster Lake

COUNTIES: El Dorado and Alpine

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

BY THE EXECUTIVE DIRECTOR:

I. Background and Project Description

The Oyster Creek Stabilization Project (Project), proposed by El Dorado Irrigation District (EID or Applicant), involves stabilization of areas along Oyster Creek and its north tributary, in the Oyster Creek watershed. The Project is a requirement of Article 401 of the Federal Energy Regulatory Commission's (FERC) license for the El Dorado Hydroelectric Project (FERC Project No. 184). Article 401 is derived from State Water Resources Control Board (State Water Board) water quality certification[1] Condition 6 and United States Forest Service 4(e) Condition 35. Per these conditions, EID is required to develop and implement an Oyster Creek Stabilization Plan.

The Project is located in the western portion of the Oyster Creek watershed in El Dorado and Alpine counties, approximately five miles southwest of the town of Kirkwood. Oyster Creek, a tributary to the Silver Fork American River, originates at Oyster Lake at an elevation of 7,220 feet above mean sea level. Oyster Lake is fed by subsurface leakage from Silver Lake[2], precipitation, and snowmelt. There is one main tributary to Oyster Creek, which is referred to as the north tributary.

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[1] The State Water Board issued a water quality certification for the El Dorado Hydroelectric Project on April 4, 2006.

[2] Silver Lake is an El Dorado Hydroelectric Project reservoir.

The Oyster Creek Stabilization Plan[3] identifies three locations on the north tributary and one location on Oyster Creek as "vulnerable" or "unstable" streambanks that lack riparian vegetation cover. The work areas, including access roads and staging areas, are shown in Figure 1. The Oyster Creek Stabilization Plan Construction Drawings are included as Attachment 1.

The Project includes using biotechnical stabilization techniques, native vegetation plantings, and rock to stabilize high risk erosional sites in the Oyster Creek watershed. Implementation of best management practices and avoidance and minimization measures will be used to reduce potential construction impacts. Specific proposed stabilization treatments include: planting live woody cuttings (willow and alder); and placement of wood and brush (non-living), rock (10 -15 cubic yards), and biodegradable erosion control products (e.g., coir fabric and rolls). Live woody cuttings, wood, and brush will be collected by hand in the Oyster Creek watershed. Rock and biodegradable erosion control products will be imported to the site. A rubber-tracked mini excavator and all-terrain vehicle and trailer may be used to transport rock and biodegradable erosion control products from staging areas to the stabilization treatment locations. Temporary crossings made of geotextile fabric overlaid by rock will be placed in two ephemeral drainages that cross the existing access road to provide safe access to the sites.

Work activities in the channel of the north tributary and along Oyster Creek will be completed by crews using hand tools. Work will occur during the dry-season (August 1 through September 30). Willow harvesting and planting may occur after the dry-season. The Project area (including staging and construction sites) covers 0.42 acres and construction is anticipated to take 10 to 20 days to complete.

II. Regulatory Authority

Water Quality Certification and Related Authorities

The Federal Clean Water Act (CWA) (33 U.S.C. §§1251-1387) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Section 101 of the CWA (33 U.S.C. §1251(g)) requires federal agencies to "cooperate with the State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources."

Section 401 of the CWA (33 U.S.C. §1341) requires every applicant for a federal license or permit which may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will be in compliance with specified provisions of the CWA, including water quality standards and implementation plans promulgated pursuant to section 303 of the CWA (33 U.S.C. §1313). CWA section 401 directs the agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the CWA and with any other appropriate requirement of state law. Section 401 further provides that state certification conditions shall become conditions of any federal license or permit for the project. The State Water Board is designated as the state water pollution control agency for all purposes stated in the CWA and

[3] The Oyster Creek Stabilization Plan was developed based on direct site observations from 2007-2012 and on geomorphic data collected from 1999-2009. The Oyster Creek Stabilization Plan (dated April 2012) was approved by the State Water Board Deputy Director for the Division of Water Rights on November 30, 2012.

any other federal act (Wat. Code, §13160). The State Water Board's Executive Director has been delegated the authority to issue a decision on a certification application (Cal. Code Regs., tit. 23, § 3838, subd. (a)).

Water Code section 13383 provides the State Water Board with the authority to "establish monitoring, inspection, entry, reporting and recordkeeping requirements...and [require] other information as may reasonably be required" for activities subject to certification under section 401 of the CWA that involve the diversion of water for beneficial use. The State Water Board delegated this authority to the Deputy Director of the Division of Water Rights (Deputy Director), as provided for in State Water Board Resolution No. 2012-0029. In the *Redelegation of Authorities Pursuant to Resolution No. 2012-0029* memo issued by the Deputy Director on October 19, 2017, this authority is redelegated to the Assistant Deputy Directors of the Division of Water Rights.

The application for certification was received on September 20, 2017. The State Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the State Water Board's website on October 20, 2017. Also on October 20, 2017, the State Water Board provided notice of receipt of a complete application for the Project to applicable parties pursuant to California Code of Regulations, title 23, section 3835(c). No comments were received.

State Water Board staff forwarded the portions of the application that have the potential to cause adverse water quality impacts, other than specific impacts resulting from alterations to instream flows, to the Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) on March 14, 2018. (See Cal. Code Regs., tit. 23, §3855, subd. (b)(2)(B).) Central Valley Regional Water Board staff responded with no comments on March 29, 2018. State Water Board staff also forwarded the draft Project certification to the Central Valley Regional Water Board on June 4, 2018. Central Valley Regional Water Board staff responded with no comments on July 16, 2018.

The United States Army Corps of Engineers (ACOE) determined that the Project qualifies for authorization under the Department of the Army Nationwide Permit No. 27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities, pursuant to Section 404 of the CWA. The ACOE identification number for the Project is SPK-2017-00804. On March 16, 2018, the California Department of Fish and Wildlife (CDFW) issued EID a Lake or Streambed Alteration Agreement for the Project. The CDFW notification number for the Project is 1600-2017-0318-R2.

Water Quality Control Plans and Related Authorities

The Regional Water Boards have primary responsibility for the formulation and adoption of water quality control plans for their respective regions, subject to State Water Board and United States Environmental Protection Agency (USEPA) approval, as appropriate. (Wat. Code, § 13240 et seq.) The State Water Board may also adopt water quality control plans, which will supersede regional water quality control plans for the same waters to the extent of any conflict. (Wat. Code, § 13170.) For a specified area, the water quality control plans designate the beneficial uses of water to be protected, the water quality objectives established for the reasonable protection of those beneficial uses or the prevention of nuisance, and a program of implementation to achieve the water quality objectives. (Wat. Code, §§ 13241, 13050 subds. (h), and (j).) The beneficial uses together with the water

quality objectives that are contained in the water quality control plans, in addition to state and federal anti-degradation requirements, constitute California's water quality standards.

The Central Valley Regional Water Board adopted, and the State Water Board and the USEPA approved, the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan). The Basin Plan identifies existing beneficial uses for the *American River - South Fork - Source to Placerville* as: municipal and domestic supply; power; contact recreation; canoeing and rafting; noncontact recreation; cold freshwater habitat; cold spawning habitat; and wildlife habitat. Warm freshwater habitat is identified as a potential beneficial use.

Construction General Permit

The State Water Board has adopted a Construction General Permit[4], which is required for activities that disturb one or more acres of soil or projects that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation. It is not expected that a Construction General Permit will be required for this Project.

California Environmental Quality Act

EID is the public agency with primary responsibility for carrying out the project for purposes of California Environmental Quality Act (CEQA) compliance (Pub. Resources Code, § 21000 et seq.). EID determined that the Project is categorically exempt from CEQA requirements under section 15333 (Small Habitat Restoration Projects – Class 33) of the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.). On December 4, 2017, EID filed a Notice of Exemption with the County Clerk for the County of El Dorado.

The State Water Board has reviewed the proposed Project and concurs that the Project qualifies for the Class 33 categorical exemption. The State Water Board will file a Notice of Exemption with the State Clearinghouse within five days of issuance of this certification.

All documents and other information that constitute the public record for this Project are maintained and available for public review at the State Water Board, Division of Water Rights, 1001 I Street, Sacramento, California 95814.

III. Findings and Conclusion

When preparing the conditions in this certification, State Water Board staff reviewed and considered a wide range of information including the: (a) certification application, including subsequent submissions; (b) Basin Plan; (c) existing water quality conditions; (d) Project-related controllable factors; and (e) other information in the record.

In order to ensure that the Project meets water quality standards as anticipated, to ensure compliance with other relevant state and federal laws, and to ensure that the Project will continue to meet state water quality standards and other appropriate requirements of state law

[4] Water Quality Order 2009-0009-DWQ and National Pollutant Discharge Elimination System No. CAS000002, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ and any amendments thereto.

throughout its lifetime, this certification imposes conditions regarding monitoring, enforcement, and potential future revisions. Additionally, California Code of Regulations, title 23, section 3860 requires imposition of certain mandatory conditions for all certifications, which are included in this certification. The State Water Board finds that, with the conditions and limitations imposed by this certification, the proposed Project will be protective of the water quality and consistent with other appropriate requirements of state law.

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ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER RESOURCES CONTROL BOARD CERTIFIES THAT THE OYSTER CREEK STABILIZATION PROJECT will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of state law, if El Dorado Irrigation District complies with the following terms and conditions during the project activities certified herein.

CONDITION 1. All proposed environmental measures described in the application for water quality certification (certification) and supplemental application information are conditions of this certification. Notwithstanding any more specific conditions in this certification, El Dorado Irrigation District (Applicant) shall comply with all proposed environmental measures, including avoidance and minimization measures and best management practices, described in the certification application and supplemental application information.

CONDITION 2. Unless otherwise approved in writing by the State Water Resources Control Board (State Water Board) Deputy Director for Water Rights (Deputy Director), disturbance within the bed and bank of Oyster Creek and the north tributary associated with the Oyster Creek Stabilization Project (Project) shall be limited to August 1 through September 30. Riparian harvesting and planting associated with Project activities shall be limited to August 1 through November 30.

CONDITION 3. The Applicant shall inspect, photograph, and document the condition of the Project area, including each stabilization location, prior to and after Project implementation. Upon completion of Project construction, all access routes, disturbed areas, and any degradation related to Project activities shall be restored to their pre-construction conditions. All disturbed areas shall be seeded with the appropriate native seed mix.

CONDITION 4. The Applicant shall notify the Deputy Director 30 days prior to commencing construction activities. Upon request, the Applicant shall provide State Water Board staff with a work schedule. The Applicant shall provide State Water Board and Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) staff access to Project sites to document compliance with this certification.

CONDITION 5. Prior to Project construction activities, a qualified biologist shall conduct training for employees working at the Project site. The training shall include but not be limited to: a description of endangered or special status species[5] with potential to be present in the Project area; actions to be taken to prevent or reduce impacts to the species; and protocols to follow if species are encountered.

Within one week prior to the start of Project construction activities, the biologist shall conduct a pre-Project work area survey for special status species, with a focus on Sierra Nevada yellow-legged frog (*Rana sierra*) and Yosemite toad (*Anaxyrus canorus*). If Sierra Nevada yellow-legged frog, Yosemite toad, or other special status species is found during Project implementation, Project work shall cease immediately. Project work may not resume without written approval from the State Water Board Deputy Director.

[5] Special status species are species listed as threatened or endangered under the federal Endangered Species Act or California Endangered Species Act.

CONDITION 6. The Project shall not cause increased turbidity downstream of the Project area greater than allowable levels identified in the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan) (shown in Table A), as averaged over a 24-hour period. Project activities shall not cause increases in turbidity that constitute nuisance or that adversely affect beneficial uses.

Table A. Basin Plan Water Quality Objectives for Turbidity

Background Level or Natural Turbidity	Downstream Turbidity (after starting construction)
Less than 1 NTU	Total turbidity shall not exceed 2 NTU
Between 1 and 5 NTU	Increases shall not exceed 1 NTU
Between 5 and 50 NTU	Increases shall not exceed 20 percent
Between 50 and 100 NTU	Increases shall not exceed 10 NTUs
Greater than 100 NTU	Increases shall not exceed 10 percent

NTU = Nephelometric Turbidity Units

Turbidity Monitoring Procedure

The Applicant shall establish two turbidity monitoring locations in Oyster Creek and two monitoring locations in the north tributary: (1) a location approximately 50 feet upstream of the influence of the Project to establish natural turbidity levels flowing into the construction area (background level); and (2) a location within 300 feet downstream of the construction area to calculate potential increases in turbidity due to Project activities (compliance location). A global positioning system (GPS) point and a photograph of each location shall be taken at the time of initial sampling. These monitoring locations shall be marked (e.g., with a pin flag) and used throughout the monitoring period. Turbidity shall be measured at hourly intervals at each turbidity-monitoring location while in-water work is being conducted.

If no in-water work occurs on either Oyster Creek and/or the north tributary (i.e., construction occurs in/along a dry streambed), turbidity monitoring and turbidity monitoring locations are not required for that location. In this case, the Applicant shall take photographs of the construction site each day that construction occurs to document that the construction site is dry.

Monitoring Equipment

Turbidity shall be measured using nephelometry. Unless otherwise approved in writing by the Deputy Director, a hand-held field meter (nephelometer) shall be used to measure turbidity, provided the meter uses a United States Environmental Protection Agency-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. For each nephelometer used, a calibration and maintenance log shall be maintained onsite and provided to State Water Board staff upon request.

Reporting

If the average turbidity measured (in Oyster Creek or the north tributary) over a 24-hour period (from 6:00 AM of the current day to 5:59 AM of the following day) exceeds the water quality objectives outlined in the Basin Plan (Table A) (i.e., a turbidity exceedance), the associated Project activities shall cease immediately. In addition, the Applicant shall

implement any and all actions immediately to reduce and maintain turbidity at or below the water quality objective.

The Deputy Director and the Central Valley Regional Water Board Executive Officer (Executive Officer) shall be notified within 24 hours of a turbidity exceedance. Activities associated with a turbidity exceedance may not resume without written approval from the Deputy Director. The Applicant shall provide any documentation requested by the Deputy Director related to implementation of this condition.

CONDITION 7. The Applicant shall take all necessary measures in preconstruction planning to minimize Project impacts on riparian habitat. Prior to construction, the Applicant shall install construction fencing along the outer edges of the construction zone, where necessary, to prevent accidental entry of personnel into riparian habitat and minimize disturbance to the Oyster Creek watershed, including the north tributary. Construction fencing shall be maintained in good condition for the duration of Project work and removed within 30 days of Project completion.

CONDITION 8. Within 30 days of Project completion, the Applicant shall submit a Project Completion Report to the Deputy Director. The Project Completion Report shall include:

a. Project area documentation and monitoring data, as described in Conditions 3, 5, and 6;

b. Daily Project work summaries;

c. Documentation of compliance with each condition of this certification and details of any failure to meet the certification requirements; and

d. If applicable, details of Project-related adverse impacts to beneficial uses.

The Applicant shall provide any additional information or clarification requested by the Deputy Director related to the Project Completion Report. Upon request from State Water Board staff, the Applicant shall meet to discuss the Project Completion Report.

CONDITION 9. Vehicle use within riparian areas and waterways shall be limited to the designated work areas and access routes as specified in Figure 1. Vehicles shall be inspected and maintained daily for leaks.

CONDITION 10. A copy of this certification shall be provided to all contractors and subcontractors conducting Project work, and copies shall remain in their possession at the Project site. The Applicant shall be responsible for work conducted by its contractors and subcontractors. The Applicant, including its contractors and subcontractors, shall report any noncompliance with the conditions of this certification to the Deputy Director within 24 hours of the time when the Applicant, its contractors, or subcontractors become aware of noncompliance with the certification.

CONDITION 11. Appropriate spill containment, absorbent spill clean-up materials, and spill kits shall be available on-site. All spills shall be cleaned up immediately and shall not be buried or washed with water. Initial containment shall be with absorbent material or, if necessary, construction of berms. Used clean-up materials, contaminated materials, and recovered spilled materials that are no longer useable shall be stored and disposed of properly. Hazardous and non-hazardous material shall be disposed of in the manner

specified by the manufacturer. Contaminated soil shall be excavated, contained, and transported to an approved disposal site.

The Applicant and its contractors shall notify all applicable agencies as soon as feasible, but no later than three business days after an incident, as to the type, date, time, and actions taken in response to all spills within their jurisdiction. In the event of a major spill affecting plant, wildlife, or aquatic resources or creating public health concerns, notification shall be according to all applicable requirements.

CONDITION 12. The Applicant shall implement erosion control measures prior to beginning construction. Work may continue during precipitation events of less than 0.25 inches within a rolling 24-hour period. Work shall stop when 0.25 inches of rain occurs within a rolling 24-hour period. Work shall not resume until at least 24 hours has passed with no precipitation and the Applicant has determined site conditions are appropriate to resume construction activities.

CONDITION 13. Control measures for erosion, excessive sedimentation, and turbidity shall be implemented and in place at the commencement of, during, and after any ground clearing activities, excavation, or any other Project activities that could result in erosion or sediment discharges to surface waters.

All material stockpiles shall be protected, covered, and surrounded with coil rolls, straw wattles, erosion control blankets, liners with berms, or equivalent, to prevent sediment runoff and prevent material from contacting or entering surface waters. Stockpiles shall be located outside of riparian habitat.

CONDITION 14. All equipment shall be washed prior to transport to the Project site and be free of sediment, debris, and foreign matter.

CONDITION 15. Any maintenance or refueling of vehicles or equipment occurring on-site shall be done in a designated area with secondary containment, located away from the riparian area and stream corridor. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (motors, pumps, generators, etc.) and vehicles not in use shall be positioned over drip pans or other types of containment. Spill and containment equipment (oil spill booms, sorbent pads, etc.) shall be maintained onsite at all locations where such equipment is used or staged.

CONDITION 16. All imported rocks used for construction within or adjacent to any watercourses shall be pre-washed. Wash water generated on-site shall not contact or enter surface waters. Wash water shall be contained and disposed of off-site in compliance with federal, state, and local laws, ordinances, and regulations.

CONDITION 17. Construction material, debris, spoils, soil, silt, sand, bark, slash, sawdust, rubbish, steel, or other inorganic, organic, or earthen material, and any other substances from any Project-related activity shall be prevented from entering surface waters.

CONDITION 18. All construction debris and trash shall be contained and regularly removed from the work area to the staging area during construction activities. Upon completion of construction, all Project-generated debris, building materials, excess material, waste, and trash shall be disposed at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations.

CONDITION 19. Onsite containment for storage of chemicals classified as hazardous shall be away from watercourses and include secondary containment and appropriate management as specified in California Code of Regulations, title 27, section 20320.

CONDITION 20. Unless otherwise specified in this certification or at the request of the Deputy Director, data and/or reports shall be submitted electronically in a format accepted by the State Water Board to facilitate the incorporation of this information into public reports and the State Water Board's water quality database systems in compliance with Water Code section 13167.

CONDITION 21. The Applicant shall comply with all applicable requirements of the Basin Plan. If at any time an unauthorized discharge to surface waters (including river or streams) occurs or monitoring indicates that the Project has or could soon be in violation of water quality objectives, the associated Project activities shall cease immediately, and the Deputy Director and the Executive Officer shall be notified. Associated activities may not resume without written approval from the Deputy Director.

CONDITION 22. Notwithstanding any more specific conditions in this certification, the Project shall be conducted in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to section 303 of the Clean Water Act. The Applicant must take all reasonable measures to protect the beneficial uses of waters identified in the Basin Plan for the *American River – South Fork – Source to Placerville*.

CONDITION 23. This certification does not authorize any act which results in the taking of a threatened, endangered, or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (ESA) (Fish & Game Code §§ 2050-2097) or the federal ESA (16 U.S.C. §§ 1531 - 1544). If a "take" will result from any act authorized under this certification or water rights held by the Applicant, the Applicant must obtain authorization for the take prior to any construction of the portion of the Project that may result in a take. The Applicant is responsible for meeting all requirements of the state and federal ESAs for the Project authorized under this certification.

CONDITION 24. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is subject to all remedies, penalties, processes, or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.

CONDITION 25. In response to a suspected violation of any condition of this certification, the State Water Board and Central Valley Regional Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports (Water Code sections 1051, 13165, 13267 and 13383). In response to any violation of the conditions of this certification, the State Water Board may add to or modify the conditions of this certification as appropriate.

CONDITION 26. No Project work shall commence until all necessary federal, state, and local approvals have been obtained. The Applicant is responsible for compliance with all applicable federal, state, and local laws and ordinances.

CONDITION 27. This certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to California Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867).

CONDITION 28. The State Water Board shall provide notice and an opportunity to be heard in exercising its authority to add to or modify the conditions of this certification.

CONDITION 29. Activities associated with construction and maintenance of the Project that threaten or potentially threaten water quality may be subject to further review by the Deputy Director and Executive Officer.

CONDITION 30. The Applicant must submit any changes to the Project which would have a significant or material effect on the findings, conclusions, or conditions of this certification, to the Deputy Director for review and written approval prior to implementation. If the Deputy Director is not notified of a significant change to the Project, it will be considered a violation of this certification.

CONDITION 31. This certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

CONDITION 32. Any requirement in this certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another state or federal agency, will apply equally to the successor agency.

CONDITION 33. This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28 and owed by the Applicant.

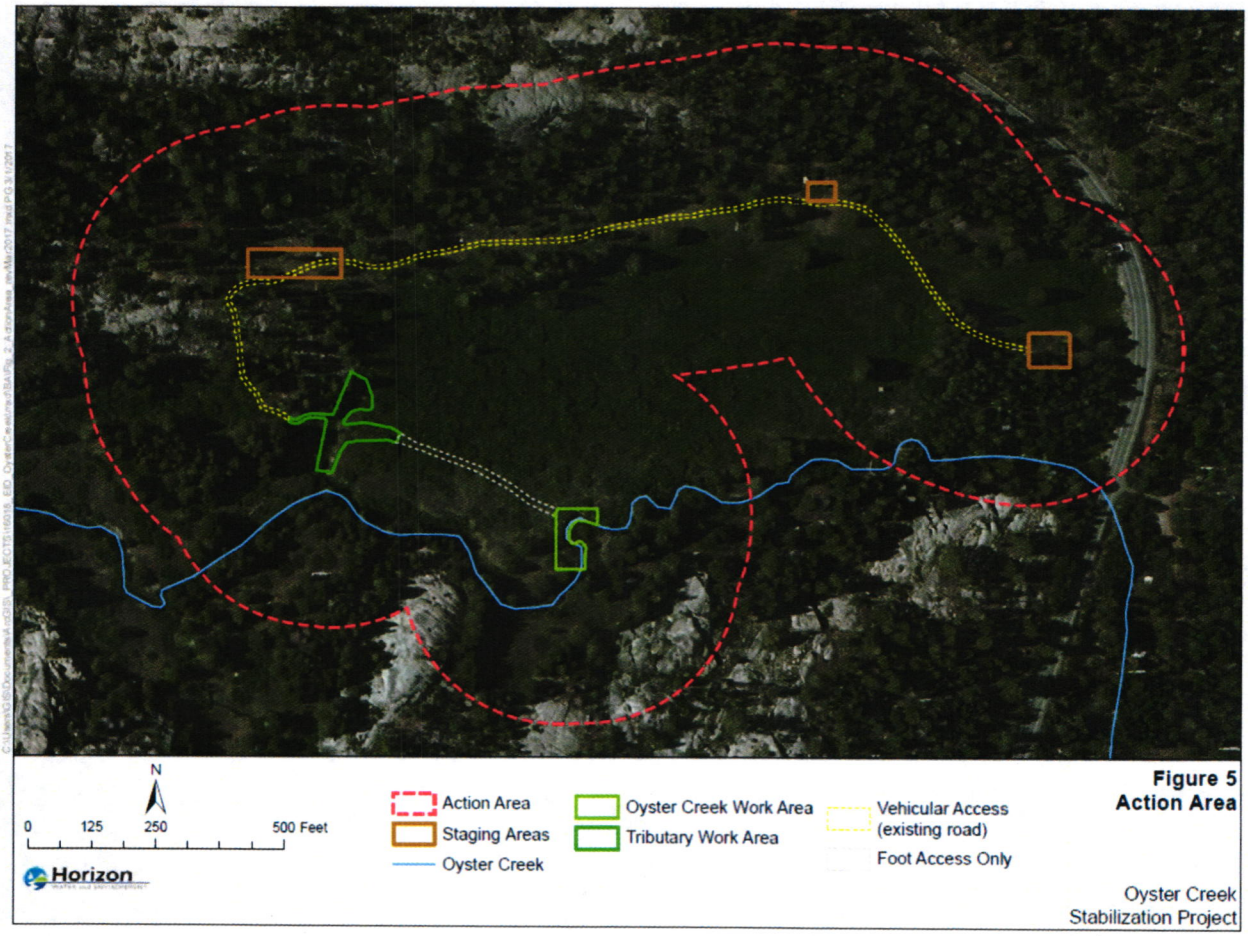
CONDITION 34. Nothing in this certification shall be construed as State Water Board approval of the validity of any water rights, including pre-1914 claims. The State Water Board has separate authority under the Water Code to investigate and take enforcement action if necessary, to prevent any unauthorized or threatened unauthorized diversions of water.

Eileen Sobeck
Executive Director

2/27/19
Dated

Enclosures: Figure 1: Map of Oyster Creek Stabilization Project, including access roads and work area
Attachment 1: Oyster Creek Stabilization Plan Construction Drawings (dated April 2012)

Figure 1: Map of Oyster Creek Stabilization Project, including access roads and work area



Attachment 1

Oyster Creek Stabilization Plan
Construction Drawings

April 2012

OYSTER CREEK STABILIZATION PLAN

SHEET INDEX

PROJECT DESCRIPTION

THESE PLANS PROVIDE DETAILS FOR THE STABILIZATION OF A PORTION OF OYSTER CREEK, LOCATED DOWNSTREAM OF STATE ROUTE 88, IN THE COUNTY OF EL DORADO.

GENERAL NOTES

1. PLANS WERE PREPARED AT THE REQUEST OF:
   EL DORADO IRRIGATION DISTRICT
   2890 MOSQUITO ROAD
   PLACERVILLE, CA 95667
   (530) 642-4513

2. PROJECT COORDINATOR:
   JAKE EYMANN
   WATER/HYDRO DIVISION
   EL DORADO IRRIGATION DISTRICT
   2890 MOSQUITO ROAD, 2ND FLOOR
   PLACERVILLE, CA 95667
   (530) 642-4068

3. TOPOGRAPHIC MAPPING PROVIDED BY:
   HJW GEOSPATIAL, INC.
   2001 BROADWAY, THIRD FLOOR
   OAKLAND, CA. 94612
   PHONE: (510)834-2001
   PROJECT No. 07-251
   FLIGHT DATES: 8/03/07

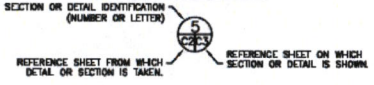
4. ELEVATION DATUM: NAVD 88

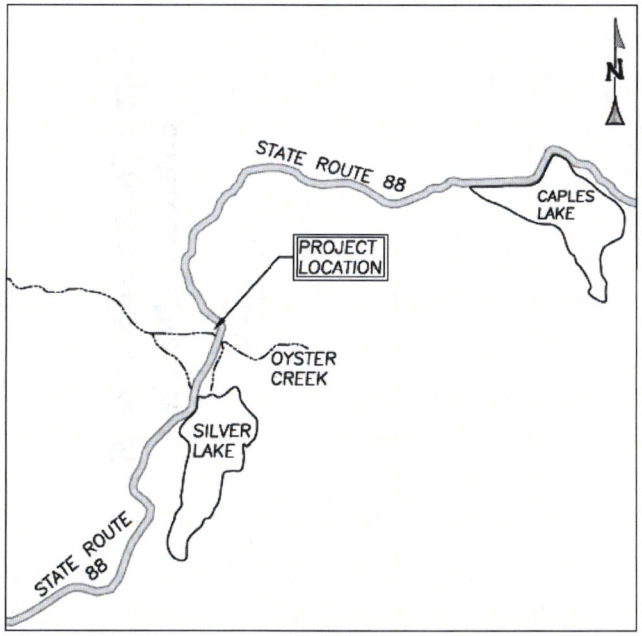
5. BASIS OF BEARINGS: STATE PLANE NAD 83, ZONE 2

6. ELEVATIONS AND DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF. CONTOUR INTERVAL IS 2 FEET.

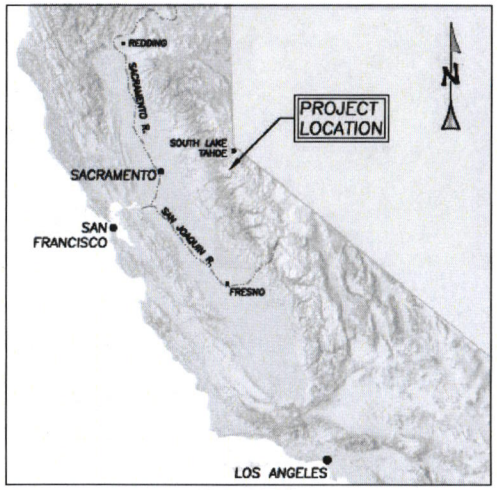
7. THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES, IF SHOWN, WERE COMPILED FROM RECORD INFORMATION AND FROM FIELD TIES TO EXISTING BOUNDARY MONUMENTATION. THE LOCATION OF THESE LINES IS SUBJECT TO CHANGE, PENDING THE RESULTS OF A COMPLETE BOUNDARY SURVEY.

SECTION AND DETAIL CONVENTION





VICINITY MAP
N.T.S.



STATE MAP
N.T.S.

ABBREVIATIONS

A	ALDER
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
APN	ASSESSORS PARCEL NUMBER
ASB	AGGREGATE SUB-BASE
BW	BASE OF WALL
CC	CONCRETE
CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
CP	CONTROL POINT
D	DESCRIPTION
DBH	DIAMETER AT BREAST HEIGHT
DI	DROP INLET
DIA	DIAMETER
E	EXISTING / EASTING
EB	EXISTING GROUND
EL	ELEVATION
EP	EDGE PAVEMENT
ER	END RETURN
FH	FIRE HYDRANT
FG	FINISH GRADE
FL	FLOW LINE
FNC	FENCE
INV	INVERT
LF	LINEAR FEET
LP	LIGHT POLE
M	MAPLE
N	NEW / NORTHING
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O	OAK
OC	ON CENTER
PL	PROPERTY LINE
PNS	PAVEMENT NAIL AND SHINER
PP	POWER POLE
PVC	POLYVINYL CHLORIDE
RC	RELATIVE COMPACTION
RCP	REINFORCED CONCRETE PIPE
RSP	ROCK SLOPE PROTECTION
SF	SQUARE FEET
SHT.	SHEET
SMK	6" GALV. SPIKE SURVEY MONUMENT
STA	STATION
TEMP	TEMPORARY
TBD	TO BE DETERMINED
TP	TELEPHONE POLE
TW	TOP OF WALL
TYP	TYPICAL
W	WATER / WILLOW
WM	WATER METER
WV	WATER VALVE
Z	ELEVATION

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PH:(831)421-1281 / FAX:(888)818-8947
www.waterways.com

2/22/12 DATE
No. 6235 Exp. 6-30-13 CIVIL
MATT W. HEID

PREPARED AT THE REQUEST OF EL DORADO IRRIGATION DISTRICT

COVER

OYSTER CREEK STABILIZATION PLAN

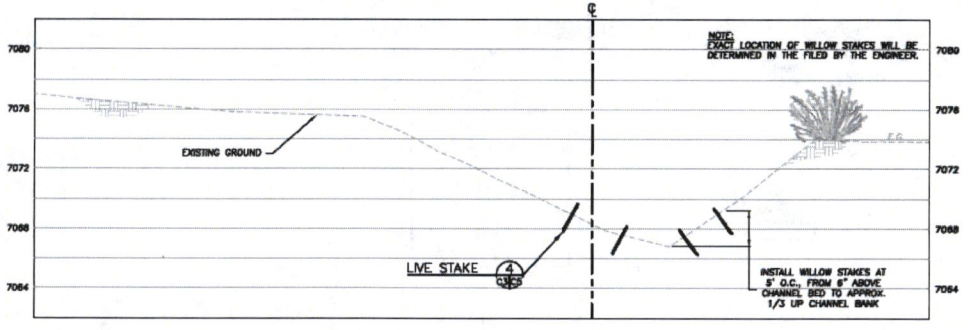
DESIGNED BY: M.W.H.
DRAWN BY: C.M.R.
CHECKED BY: M.W.H.
DATE: 2-22-12
JOB NO.: 07-257

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

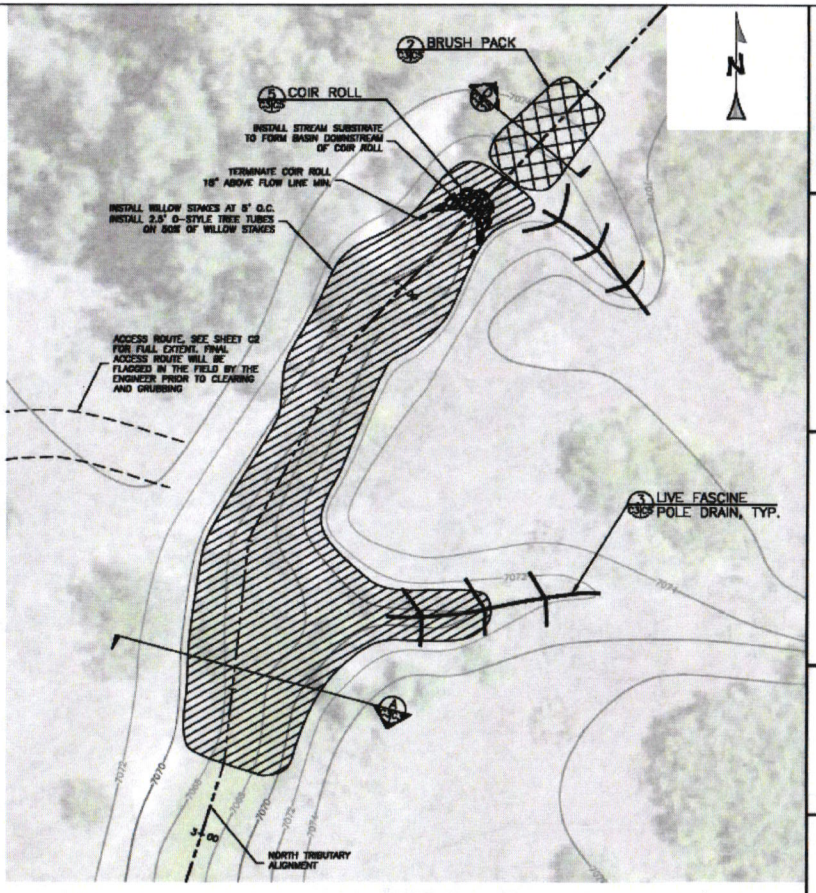
C1 | 1 OF 5

C2	OYSTER CREEK STABILIZATION PLAN	SITE OVERVIEW AND ACCESS	PREPARED AT THE REQUEST OF EL DORADO IRRIGATION DISTRICT	MATT W. WELD No. 62535 Ex. 6-30-13 CIVIL — STATE OF CALIFORNIA — 2/22/12 DATE	WATERWAYS CONSULTING 4038 SWIFT ST. SANTA CRUZ, CA 95062 PH:(831)421-9251 / FAX:(888)819-5847 WWW.WATWAYS.COM	DESIGNED BY: M.W.W. DRAWN BY: M.W.W. CHECKED BY: M.W.W. DATE: 2-22-12 JOB NO.: 07-387 BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS 0 1"
2 of 5						

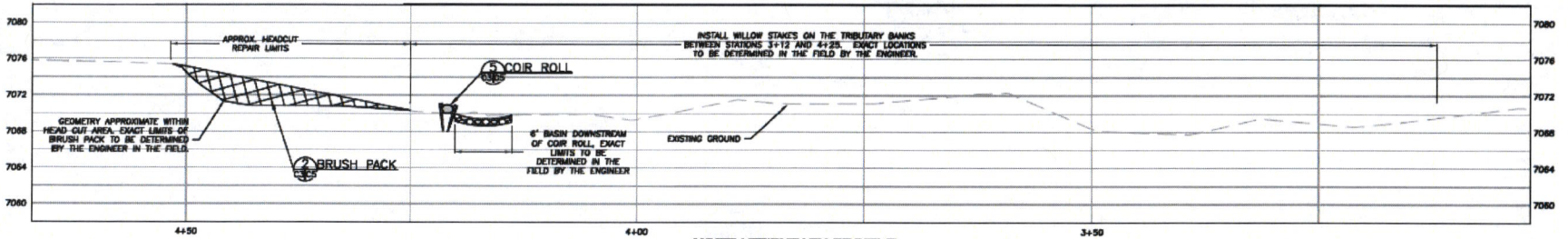
PHOTO 3 VIEW LOOKING UPSTREAM WITHIN NORTH TRIBUTARY



NORTH TRIBUTARY TYPICAL SECTION
HORIZ. SCALE: 1"=8'
VERT. SCALE: 1"=4'
A C3



NORTH TRIBUTARY PLAN
SCALE: 1"=10'



NORTH TRIBUTARY PROFILE
SCALE: 1"=8'

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4/22/12 DATE

MATT M. REID

PREPARED AT THE REQUEST OF:
EL DORADO IRRIGATION DISTRICT

NORTH TRIBUTARY SITE PLAN

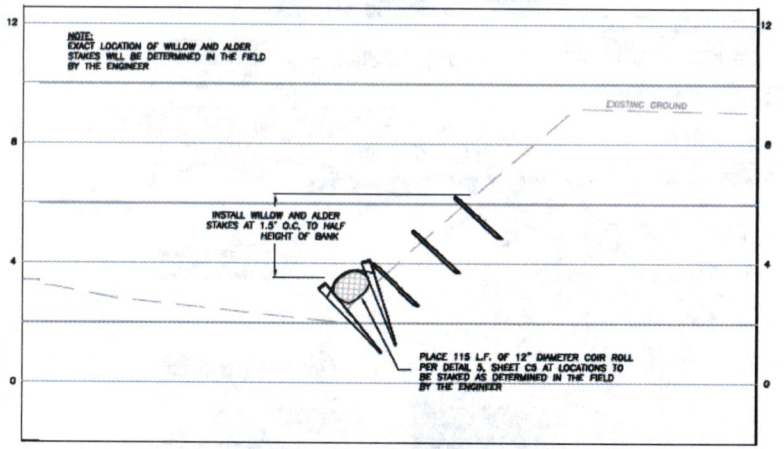
OYSTER CREEK STABILIZATION PLAN

DESIGNED BY:	M.W.W.
DRAWN BY:	C.M.R.
CHECKED BY:	M.W.W.
DATE:	2-22-12
JOB NO.:	07-597

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS
0 1"

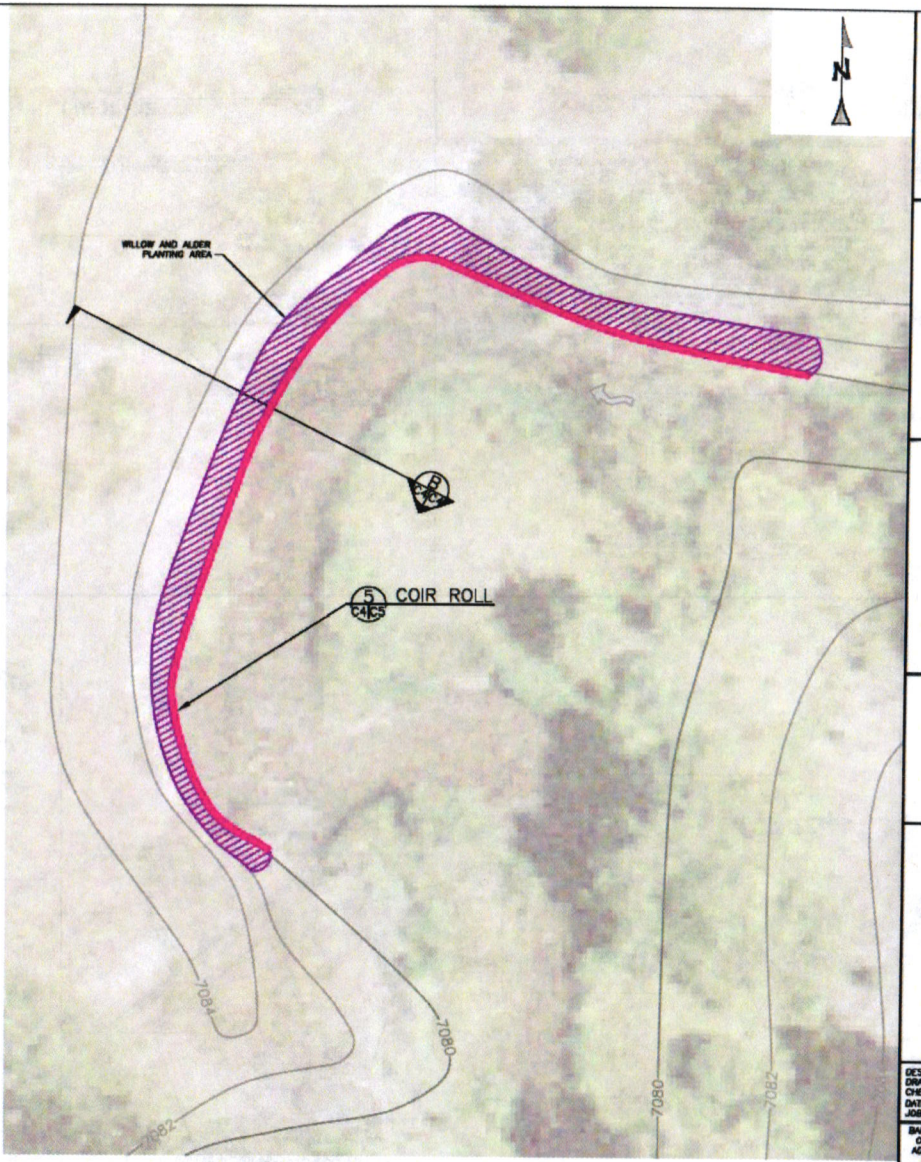
C3 | 3 OF 5

PHOTO 2: ERODING STREAMBANK (STA. 39+80 - 39+60)



TYPICAL SECTION (STA. 38+58 - 40+00) (B / C4|C4)
SCALE: 1"=2'

NOTE:
THE AERIAL TOPOGRAPHY LACKS DETAILED INFORMATION FOR LOCATIONS BELOW THE WATER SURFACE. THE EXISTING GROUND DATA SHOWN IN THIS SECTION IS SUPPLEMENTED WITH DATA FROM A SEPTEMBER, 2007 CROSS-SECTIONAL SURVEY COMPLETED BY SWANSON HYDROLOGY + GEOMORPHOLOGY.



BANK STABILIZATION PLAN (STA. 38+58 - 40+00)
SCALE: 1"=5'

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WWW.WATWAYS.COM

12/12 DATE

REGISTERED PROFESSIONAL ENGINEER No. 62335 Exp. 1-31-13 CIVIL STATE OF CALIFORNIA
MATT M. REID

PREPARED AT THE REQUEST OF EL DORADO IRRIGATION DISTRICT

BANK STABILIZATION PLAN (STA. 38+58 - 40+00)

OYSTER CREEK STABILIZATION PLAN

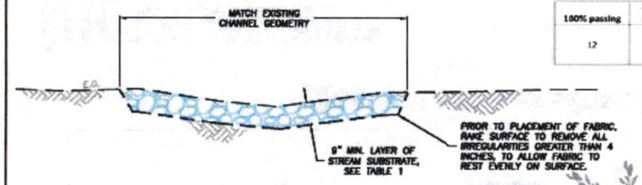
DESIGNED BY:	M.W.W.
DRAWN BY:	C.M.S.
CHECKED BY:	M.W.W.
DATE:	2-22-12
JOB NO.:	07-567

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS
0 1"

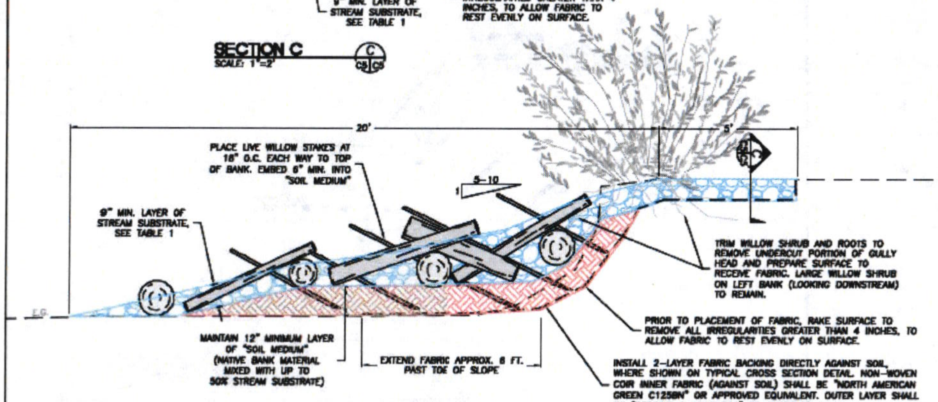
C4 | 4 of 5

Table 1: Gradation requirements for Stream Substrate, inches or sieve size

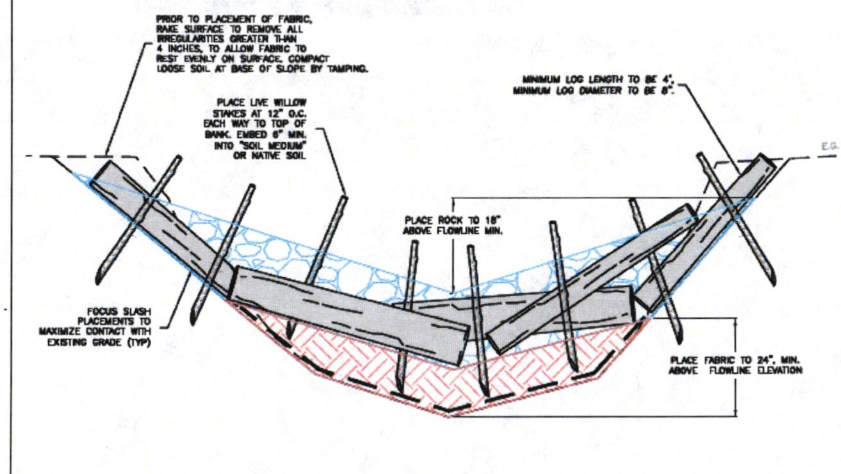
100% passing	40-60% passing	30-50% passing	12-20% passing	0-10% passing
12	4	1 3/4	0.530	No. 10



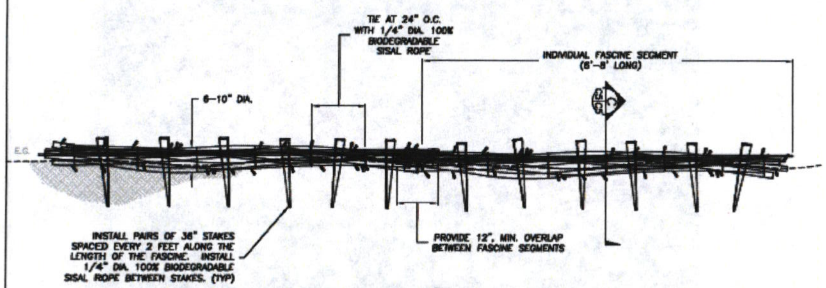
SECTION C
SCALE: 1"=2'



BRUSH PACK PROFILE
SCALE: 1"=2'



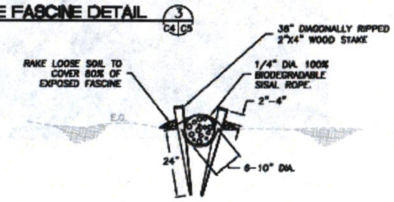
BRUSH PACK SECTION
SCALE: 1"=1'



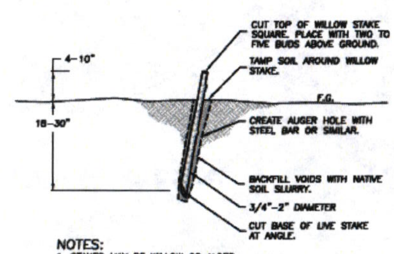
LIVE FASCINE DETAIL
N.T.S.

NOTES:

1. FASCINES TO BE MADE OF INDIVIDUAL FASCINE SEGMENTS JOINED TOGETHER AS SHOWN.
2. FASCINE MADE OF 1/4" - 2" DIA. WILLOW STAKES. ALTERNATE BUTT-ENDS AND TIE SECURELY WITH ROPE AS SHOWN. WILLOW STAKE LENGTH TO RANGE FROM 4' - 8'.
3. INSTALL FASCINE IN TRENCH. TRENCH DEPTH IS EQUIVALENT TO ½ FASCINE DIAMETER, SEE SECTION C FOR MORE DETAIL.



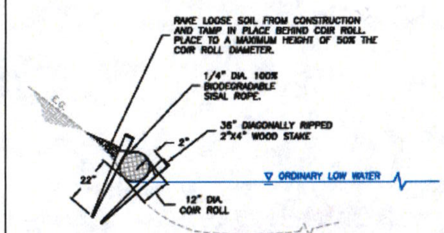
LIVE FASCINE SECTION
N.T.S.



NOTES:

1. STAKES MAY BE WILLOW OR ALDER.
2. DO NOT HAMMER STAKES INTO GROUND.

LIVE STAKE
SCALE: N.T.S.



NOTES:

1. COIR ROLL SHALL BE A PRE-MANUFACTURED ROLL MADE FROM COCONUT FIBER ENCAPSULATED WITHIN A BIODEGRADABLE JUTE, SISAL, OR COIR FIBER NETTING. THE NETTING SHALL HAVE A MINIMUM DURABILITY OF 2 YEARS AFTER INSTALLATION. THE NETTING SHALL BE SECURED TIGHTLY AT EACH END OF THE ROLL. ROLLS HAVE A MINIMUM WEIGHT OF THREE POUNDS PER LINEAR FOOT AND A MINIMUM LENGTH OF 10 FEET.
2. 1" X 2" X 24" STAKES WITH A ONE-HALF INCH NOTCH (EACH DIMENSION) CUT TWO INCHES FROM THE TOP INTO THE 2-INCH AXIS OF THE STAKE FOR THIS INSTALLATION. WOOD STAKES SHALL BE UNTREATED FIR, REDWOOD, CEDAR, OR PINE AND CUT FROM SOUND TIMBER. THEY SHALL BE STRAIGHT AND FREE OF LOOSE OR UNSOUND KNOTS AND OTHER DEFECTS WHICH WOULD RENDER THEM UNFIT FOR THE PURPOSE INTENDED. METAL STAKES SHALL NOT BE USED.
3. ROPE AND NOTCHED STAKES SHALL BE USED TO RESTRAIN THE FIBER ROLLS AGAINST THE SLOPE. STAKES SHALL BE DRIVEN INTO THE SLOPE UNTIL THE NOTCH IS EVEN WITH THE TOP OF THE FIBER ROLL. ROPE SHALL BE KNOTTED AT EACH STAKE AND LACED BETWEEN STAKES. AFTER INSTALLATION OF THE ROPE, STAKES SHALL BE DRIVEN INTO THE SLOPE SUCH THAT THE ROPE WILL HOLD THE FIBER ROLL TIGHTLY TO THE SLOPE. FURROWS WILL NOT BE REQUIRED.
4. CLEAR THE BEDDING AREA FOR THE COIR ROLL FREE OF OBSTRUCTIONS INCLUDING, ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH IN DIAMETER BEFORE INSTALLATION.
5. SEE MANUFACTURER'S RECOMMENDATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS.

COIR ROLL
SCALE: 1"=2'

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MATT W. WELD
No. 62235
CIVIL
STATE OF CALIFORNIA
2/22/12
DATE

PREPARED AT THE REQUEST OF
EL DORADO IRRIGATION DISTRICT

DETAILS

OYSTER CREEK STABILIZATION PLAN

DESIGNED BY: M.W.W.
DRAWN BY: C.M.R.
CHECKED BY: M.W.W.
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BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

C5

5 OF 5