Humboldt County Resource Conservation District
Salt River Ecosystem Restoration Project - 2019 Construction
Construction Documents
Issue for Bid
May 2019
GHD Project #: 10653-8410410-11.02

Prepared for: Humboldt County RCD
5630 South Broadway
Eureka, California
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ADVERTISEMENT FOR BIDS
Salt River Ecosystem Restoration Project - 2019 Construction

Humboldt County Resource Conservation District
Owner

5630 South Broadway
Eureka, California 95503
Address

A conditional or qualified bid will not be accepted if it modifies the Plans or Specifications or method of work. A mandatory pre-bid meeting is scheduled for FRIDAY MAY 31, 2019 at 1PM at 100 Fulmor Road Ferndale, CA 95536. See map in Information for Bidders. A bidder who fails to attend the entire mandatory pre-bid meeting or fails to sign the sign-in sheet shall be disqualified from bidding.

The work consists of the furnishing of all labor, equipment, and supervision for restoration of the 2019 Construction Phase of the Salt River Ecosystem Restoration Project. The work generally includes vegetation clearing, grubbing, excavation, sediment hauling, channel rock installation, placement of large wood habitat structures and seed/mulch application.

Bids will be received at the office of GHD Inc., 718 Third Street, Eureka, California until 4PM, Pacific Daylight Time FRIDAY JUNE 7, 2019.

The Contract Documents are available online at the HCRCD website: http://humboldtrcd.org/

Copies of the contract documents may also be obtained at the office of GHD Inc., located at 718 Third Street, Eureka, California, 95501, upon payment of $50.00 for each set. In addition to the printed plans and upon signing of a waiver and release of liability, the contractor may obtain selected AutoCAD files for informational purposes only. The printed plans shall be the basis for the Contractor’s Bid.

None of the above payments for Contract Documents will be refundable.

Each proposal must be submitted on the prescribed form and accompanied by a certified check or Bid Bond in an amount of not less than 10 percent of the amount bid. Successful bidders will be required to furnish both a Payment Bond and Performance Bond in the full amount of the Contract Price.

In accordance with Public Contract Code Section 10263 and with concurrence of the project funding agencies, the Contractor may be allowed to substitute securities for monies normally withheld by the owner to insure performance under this contract.

This is a Public Works Project funded with Federal and CA State funds (Proposition 84, 1E, 13 and 1).

In accordance with the provisions of section 1720 et seq. of the Labor Code, the Division of Labor Standards and Research has determined the general prevailing rates or wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in section 1773.8. These wages are set forth in the General Prevailing Wage Rates for this project, and are available for review at the office of GHD Inc., 718 Third Street, Eureka, California and available from the California Department of Industrial Relations’ Internet web site at http://www.dir.ca.gov/DLSR/PWD. Contractor will be required to comply with any changes in these wage rates as they are updated by the State government during the course of the job at no cost to the Owner.

It shall be mandatory upon the Contractor herein and upon any Subcontractor to pay not less than the
said specified rates to all laborers, workers and mechanics employed by them in the execution of the Agreement pursuant to CA Labor Code 1774.

Attention is directed to the provisions in section 1777.5 and sections 1777.6 of the Labor Code concerning the requirement to employ apprentices by the Contractor or any Subcontractor under it.

The Contractor shall comply with and shall cause his subcontractors to comply with all laws and regulations governing the contractor’s and subcontractor’s performance on this project including, but not limited to: anti-discrimination laws, workers’ compensation laws, and prevailing wage laws as set forth in CA Labor Code, Sections 1720-1861 et seq. and licensing laws, as well as Federal Labor Standards set forth in the Davis-Bacon Act (40 USC 276(a-a5), the Copeland “Anti-Kickback” Act (40 USC 276©; and the Contract Work Hours and Safety Standards Act (CWHSSA) (40 USC 327-333). The contractor is required to include the prevailing wage language in all subcontracts pursuant to CA Labor Code 1775(E)(b)(1). The Contractor shall post, at appropriate conspicuous points on the site of the Project, a schedule showing all the determined general prevailing wage rates.

The Contractor agrees to comply with Labor Code Section 1775 (Payment of the Prevailing Wage Rates) and Labor Code 1776 (keeping accurate records) and Labor Code 1777.5, placing responsibility for compliance with the statutory requirements for all apprenticeable occupations on the prime contractor. The Contractor shall comply with the requirements imposed by the California Labor Code Sections 1720 through 1861 regarding public works projects and prevailing wage laws and sections 16000-16800 of the CA Code of Regulations.

Each worker needed to execute the work must be paid travel and subsistence payments as defined in the applicable collective bargaining agreements filed in accordance with Labor Code Section 1773.8.

Holiday and overtime work when permitted by law shall be paid for at a rate of at least one and one-half times the above specified rate of per diem wages, unless otherwise specified.

Contractors and any Subcontractors shall be assessed penalties for violating the following labor codes; CA Labor Code 1813 for overtime, 1775 for underpayment of the prevailing wage, and 1776 for inaccurate or incomplete payroll records.

The Contractor shall be responsible for submitting certified payroll records in accordance with Labor Code 1776 and submit copies to RCD’s Labor Compliance Officer.

No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

This is a federally-assisted project and Davis-Bacon (DBRA) requirements will be strictly enforced. Federal Labor Standards will apply. Contractor must adhere to Title 29 CFR 5.5. Contractors, including all subcontractors and apprentices, must be eligible to participate.

The federal wage determination for this Project is CA190004 5/13/19 CA4.

By: Curtis Ihle, Interim Executive Director Dated: May 22, 2019
PART 1: BIDDING REQUIREMENTS
INFORMATION FOR BIDDERS

Bids will be received by the Humboldt County Resource Conservation District (HCRC District) (herein called the "Owner"), at the office of GHD Inc., 718 Third Street, Eureka, until the time listed in the Advertisement for Bids; and then at said office publicly opened and read aloud.

Each bid must be submitted in a sealed envelope, addressed to GHD Inc., 718 Third Street, Eureka, California 95501. Each sealed envelope containing a bid must be plainly marked on the outside as BID FOR SALT RIVER ECOSYSTEM RESTORATION PROJECT - 2019 CONSTRUCTION, and the envelope should bear on the outside the name of the bidder, his address, his license number if applicable, and the name of the Schedule for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to GHD Inc., 718 Third St., Eureka, CA 95501.

Bids received after the time specified opening will not be considered. The bidder is solely responsible for timely delivery of his bid.

A mandatory pre-bid site inspection conference is scheduled for FRIDAY MAY, 31, 2019 at 1PM at 100 Fulmor Road near Ferndale, CA (see map below). A bidder who fails to attend the entire mandatory pre-bid meeting or fails to sign the sign-in sheet shall be disqualified from bidding.

All bids must be made on the required bid form. All blank spaces for bid prices must be filled in, in ink or typewritten, and the bid form must be fully completed and executed when submitted. Only one copy of the bid form is required.
Awards will be made to the lowest, responsive, responsible BIDDER in accordance to the requirements on the bid form. One of the requirements for being deemed responsive and responsible is that the bidder must meet all of the minimum qualification requirements set forth in the Bidder’s Qualification Summary.

The HCRCD has the necessary site control for items of work in the Base Bid Schedule as shown on the plans however site control to construct the items of work in the Additive Bid Schedule has not been obtained, but may prior to contract award.

The Owner may waive any informalities or minor defects or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered.

No bidder may withdraw a bid within 60 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period; the time may be extended by mutual agreement between the Owner and the bidder.

Bid Protest. Any bid protest must be in writing and received by the Owner at GHD Inc., 718 Third Street, Eureka, California 95501 before 5:00 p.m. no later than two (2) working days following bid opening (the “Bid Protest Deadline”) and must comply with the following requirements below.

Only a bidder who has actually submitted a Bid Proposal is eligible to submit a bid protest against another bidder. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest.

The bid protest must contain a complete statement of the basis for the protest and all supporting documentation. Material submitted after the Bid Protest Deadline will not be considered. The protest must refer to the specific portion or portions of the Contract Documents upon which the protest is based. The protest must include the name, address and telephone number of the person representing the protesting bidder if different from the protesting bidder.

A copy of the protest and all supporting documents must also be transmitted by fax or by e-mail, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.

The protested bidder may submit a written response to the protest, provided the response is received by Owner before 5:00 p.m., within two (2) working days after the Bid Protest Deadline or after receipt of the bid protest, whichever is sooner (the “Response Deadline”). The response must include all supporting documentation. Material submitted after the Response Deadline will not be considered. The response must include the name, address and telephone number of the person representing the protested bidder if different from the protested bidder.

A copy of the response and all supporting documents must also be transmitted by fax or by e-mail, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.

The procedure and time limits set forth in this section are mandatory and are the bidder’s sole and exclusive remedy in the event of bid protest. The bidder’s failure to comply with these procedures shall constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.
Bidders must satisfy themselves of the accuracy of the estimated quantities in the bid schedule by examination of the site and a review of the Plans and Specifications including addenda. After bids have been submitted, the bidder shall not assert that there was a misunderstanding concerning the quantities of work or of the nature of the work to be done.

Each bid must be accompanied by a bid bond payable to the Owner, for ten percent of the total amount of the bid. As soon as the bid prices have been compared, the Owner will return the bonds of all except the three lowest responsible bidders. When the Agreement is executed, the bonds of the two remaining unsuccessful bidders will be returned. The bid bond of the successful bidder(s) will be retained until the payment bond and performance bond have been executed and approved, after which it will be returned. A certified check may be used in lieu of a bid bond.

A performance bond and a payment bond, each in the amount of 100 percent of the contract price, with a corporate surety approved by the Owner and in favor of the HCRCRD, SCC, CDFW, WCB, OPC, NOAA and Caltrans, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign bid bonds or payment bonds and performance bonds must file with each bond a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance bond and payment bond within fourteen (14) calendar days from the date when Notice of Award is delivered to the bidder. The Notice of Award shall be accompanied by the necessary Agreement and bond forms. In case of failure of the bidder to execute the Agreement, the Owner may at his option consider the bidder in default, in which case the bid bond accompanying the proposal shall become the property of the Owner.

The Owner, within thirty (30) calendar days of receipt of an acceptable performance bond, payment bond and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the Owner not execute the Agreement within such period, the bidder may submit a written notice to withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the Owner.

The Notice to Proceed shall be issued within thirty (30) days of the execution of the Agreement by the Owner. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the Owner and Contractor.

In essence, the owner will strive to expedite all review processes that it is responsible for, as set forth above in an attempt to issue the Notice to Proceed by July 15, 2019 or as soon thereafter as reasonable.

If the Notice to Proceed has not been issued within the thirty (30) day period or within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party.

The Owner may make such investigations as deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the Agreement and to complete the work contemplated therein. As a minimum, the bidder must meet all the requirements set forth in the Bidder’s Qualification Summary.
A conditional or qualified bid will not be accepted if it modifies the Plans or Specifications or method of work.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout. The Bidder is cautioned to familiarize himself/herself with all applicable permits associated with this project.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the Department of Industrial Relations, State of California. These wages are set forth in the General Prevailing Wage Rates for this project, and are available for review at the California Department of Industrial Relations’ Internet web site at http://www.dir.ca.gov/DLSR/PWD. Contractor will be required to comply with any changes in these wage rates as they are updated by the State government at no cost to the Owner.

The U.S. Department of Transportation (DOT) provides a toll-free “hotline” service to report bid rigging activities. Bid rigging activities can be reported Mondays through Fridays, between 8:00 a.m. and 5:00 p.m., Eastern Time, Telephone No. 1-800-424-9071. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report these activities. The “hotline” is part of the DOT’s continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

The Contract Documents under which it is proposed to execute the work consist of the Plans, Specifications, SWPPP and all material bound herewith. These Contract Documents are intended to be mutually cooperative and to provide all details reasonably required for the execution of the proposed work. Any person contemplating the submission of a proposal shall have thoroughly examined all of the various parts of these Documents, and should there be any doubt as to the meaning or intent of said Contract Documents, the Bidder should request of the Engineer, in writing at least six working days prior to bid opening, an interpretation thereof. Any interpretation or change in said Contract Documents will be made only in writing, in the form of addenda to the Documents and will be furnished to all Bidders receiving a set of the Documents, who shall submit, or indicate receipt of all addenda with their proposals. The Owner will not be responsible for any other explanation or interpretations of said Documents.

Questions regarding the Plans and Specifications shall be submitted in writing or via email to GHD Inc., 718 Third Street, Eureka, California 95501 and received by 5PM WEDNESDAY June 5, 2019. Replies to such inquiries will be in the form of addendum or clarification that will be mailed to all plan holders. Requests for clarification regarding various portions of the Plans may also be directed to:

Jeremy Svehla at GHD Inc., telephone (707) 443-8326, jeremy.svehla@ghd.com

Copies of contract plans and specifications may be obtained from the office of GHD Inc., as specified in the Advertisement for Bids. The payment will not be refundable.

The Contract Documents are assembled, arranged, and titled generally in conformance with the 16-division format suggested by the Construction Specifications Institute (CSI). Minor variations to the CSI format may be used herein to suit Owner requirements or to better adapt the Documents to particular types of projects.
Portions of these Contract Documents may contain standard preprinted material. The Bidder’s attention is called to the Conditions of the contract which may modify and add to the preprinted material contained herein.

Sentences in the Contract Documents which are phrased in mandatory language, but which include no explicit reference to the party who has responsibility for performing the mandated duty, shall be interpreted as imposing responsibility for performance of the duty described on the Contractor. For example, a directive that “the site shall be kept clean” would impose the duty of keeping the site clean on the Contractor.

Where the Proposal for the work is to be submitted on a unit price basis, unit prices will be accepted on all items of work set forth in the Proposal, except those designated to be paid for as a lump sum. The estimate of quantities of work to be done is tabulated in the Proposal and, although stated with as much accuracy as possible, is approximate only and is assumed solely for the basis of calculation upon which the award of Contract shall be made. Payment to the Contractor will be made on the measurement of the work actually performed by the Contractor as specified on the Contract Documents. The Owner reserves the right to increase or diminish the amount of any class of work as may be deemed necessary.

When the Proposal for the work is to be submitted on a lump sum basis, a single lump sum price shall be submitted in the appropriate place. The total amount to be paid the Contractor shall be the amount of the lump sum in the Proposal, as adjusted for additions or deletions resulting from changes in construction. After award of Contract, the Contractor will be required to break down the lump sum Proposal into unit prices for the various portions to be completed. This breakdown of unit prices shall be submitted to the owner prior to submittal of any payment request.

All blank spaces in the Proposal form must be filled in, in ink, in both words and figures where required. No changes shall be made in the phraseology of the forms. Written amounts shall govern in cases of discrepancy between the amounts stated in writing and the amounts stated in figures. In case of discrepancy between unit prices and totals, unit prices will prevail.

Any Proposal shall be deemed informal which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or in which any of the prices are obviously unbalanced, or which in any manner shall fail to conform to the conditions of the published Advertisement for Bid.

The Bidder shall sign his Proposal in the blank space provided therefore. If Bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a co-partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts in behalf of the co-partnership. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a Power of Attorney must be on file with the Owner prior to opening of Proposals or submitted with the Proposal, otherwise the Proposal will be regarded as not properly authorized.

State and local sales and use taxes, as required by the laws and statutes of the State and its political subdivisions, shall be paid by the Contractor. Prices quoted in the Proposal shall include sales tax unless provision is made in the Proposal form to separately itemize the tax.

Any Bidder may modify his bid by electronic or written communication at any time prior to the scheduled closing time for receipt of bids, provided such communication is received by the Owner prior to the closing time. The Bidder is responsible for verifying prior to the bid opening that such modification was received.
by the Owner. The electronic or written communication should not reveal the bid price but should state the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened.

Each Bidder must inform himself of the conditions relating to the execution of the work, and it is assumed that he will inspect the site, subsurface conditions, weather, variations of soil moisture and workability with rainfall, and make himself thoroughly familiar with all the Contract Documents. The bidder should check with local contractors regarding local site, surface, subsurface and material conditions and variability. Failure to do so will not relieve the successful Bidder of his obligation to enter into a contract and complete the contemplated work in strict accordance with the Contract Documents. The Bidder's attention is called to the General Conditions and Supplementary Conditions of the Contract Documents in regards to the Bidder’s obligation to verify for himself and to his complete satisfaction all information concerning site and subsurface conditions, and Notice requirements.

Each Bidder shall inform himself of, and the Bidder awarded a contract shall comply with, State and local laws, statutes, and ordinances relative to the execution of the work. This requirement includes, but is not limited to, applicable regulations concerning employment of labor, protection of public and employee safety and health, environmental protection, the protection of natural resources, fire protection, burning and non-burning requirements, permits, fees, and similar subjects.

**DIR Registration.** No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) or be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

This project is funded through the following sources:

1. State Coastal Conservancy (SCC – Prop 1)
2. California Department of Fish & Wildlife (CDFW – Prop 1)
3. Wildlife Conservation Board - (WCB - Prop 1)
4. Ocean Protection Council (OPC – Prop 1)
5. NOAA – NMFS (Coastal Resilience Grants Program)

The Contractor shall comply with all requirements associated with these funding programs.
**BIDDERS' CHECKLIST**

This checklist has been prepared and furnished to aid bidders in including all necessary supporting information with their bid. Bidders’ submittals should include, but are not limited to the following:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PAGE</th>
<th>CHECKED</th>
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<tbody>
<tr>
<td>1. Proposal (Bid)</td>
<td>B-8</td>
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<tr>
<td>2. Bidder’s Qualification Summary</td>
<td>B-9</td>
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<tr>
<td>3. Bid Summary, Bid Schedule &amp; Acknowledgement of Addenda</td>
<td>B-10/11</td>
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</tr>
<tr>
<td>4. Authority to Sign Bid Proposal (if applicable)</td>
<td>(Attach to Bid Bond)</td>
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<td>5. List of Subcontractors (Subcontractor Details)</td>
<td>B-12</td>
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<td>6. Bid Bond</td>
<td>B-13/14</td>
<td></td>
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<td>7. Equal Employment Opportunity Certification</td>
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<td>8. Non Collusion Affidavit</td>
<td>B-16</td>
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<tr>
<td>9. Power of Attorney</td>
<td>(Attach to Bid Bond)</td>
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<tr>
<td>11. Debarment and Suspension Certifications</td>
<td>D-12/13</td>
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BID

Proposal of ________________________________________

(thereinafter called "Bidder"), organized and existing under the laws of the State of
__________________________, doing business as ________________________.

To the Humboldt County Resource Conservation District a political subdivision of the State of California
(thereinafter called "Owner").

In compliance with your Advertisement for Bids, Bidder hereby proposes to perform all work for the
construction of the

Salt River Ecosystem Restoration Project - 2019 Construction

in strict accordance with the Contract Documents, within the time set forth therein, and at the prices
stated below.

In the event of a difference between a price quoted in words and a price quoted in figures for the same
quotation, the words shall be the amount bid. In the event that the product of a unit price and an
estimated quantity does not equal the extended amount quoted, the unit price shall govern and the
corrected product of the unit price and the estimated quantity shall be deemed to be the amount bid. If the
sum of two or more items in a bidding schedule does not equal the total amounts quoted, the individual
items amounts shall govern and the corrected total shall be deemed to be the amount bid.

By submission of this bid, each bidder certifies, and in the case of a joint bid, each party certifies as to his
own organization, that his bid has been arrived at independently, without consultation, communication, or
agreement as to any matter relating to this bid with any other bidder or with any competitor.

Bidder hereby agrees to commence work under this Contract on or before a date to be specified in the
Notice to Proceed and to fully complete the project and pay the liquidated damages as provided in
Articles III and IV of the General Conditions.

Bidder agrees to perform all the work described in the Contract Documents for the following unit prices or
lump sum.

NOTE: Bids shall include sales tax and all other applicable taxes and fees.
BIDDER’S QUALIFICATION SUMMARY

The work included in this contract requires construction within sensitive instream environments during a limited construction period. Bidders submitting a bid for this project shall demonstrate their qualifications to perform the contract work based on successful completion of similar past projects. Bidder’s will be determined qualified if all criteria below are satisfied. The bidder must complete and submit the qualification criteria table below as part of the bidder’s submittal. If the bidder is including subcontractors to meet the qualifications, the bidder shall complete the Subcontractors Detail sheet. The HCRCD intends to contact the references provided to confirm the criteria has been satisfied.

<table>
<thead>
<tr>
<th>BIDDER’S QUALIFICATION CRITERIA</th>
<th>YES/NO</th>
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<tbody>
<tr>
<td>1. Performed earthwork operations in saturated soil with high groundwater conditions and excavation/hauling on public roads or private lands up to 50,000 cubic yards of soil in less than 3 months. <strong>Summary Description:</strong></td>
<td></td>
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<tr>
<td>2. Performed construction activities in sensitive environments requiring biological (fish and/or nesting bird) clearances and subject to the following permits: CDFW 1600, RWQCB 401, ACOE 404, and SWPPP. <strong>Summary Description:</strong></td>
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<td>3. Performed placement and anchoring of Large Wood Debris (LWD) habitat structures. <strong>Summary Description:</strong></td>
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<td>4. Performed native seed application for a minimum of 1-acre area. <strong>Summary Description:</strong></td>
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<td>5. Bidder attended the entire mandatory pre-bid meeting and signed the sign-in sheet?</td>
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<td>6. Provide a minimum of two reference projects completed within the past 10 years that combined demonstrate the above criteria were satisfied.</td>
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Project ___________________________ Representative/Phone # ______________________

Project ___________________________ Representative /Phone # ______________________
### BID SCHEDULE A (DOWNSTREAM OF SALT RIVER STATION 312+00)

<table>
<thead>
<tr>
<th>Item No</th>
<th>BID: Item Description</th>
<th>QTY</th>
<th>Unit</th>
<th>Unit Price Bid</th>
<th>Total Bid for Line Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Mobilization/Demobilization</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>Water Management, Dust/Erosion Control and Environmental Protection</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>Demolition, Debris Disposal and Salvage</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>Construction Surveying and Staking</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>Clearing and Grubbing</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>Channel Sediment Excavation for Native Backfill</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>Channel Sediment Excavation, Hauling, and Application - Area 1 (6,080 cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A8</td>
<td>Channel Sediment Excavation, Hauling, and Application - Area 3 (11,130 cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A9</td>
<td>Channel Sediment Excavation, Hauling, and Application - Area 2 (Remainder cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A10</td>
<td>SMA Sediment Excavation, Hauling, and Application - Area 5 (1,860 cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A11</td>
<td>SMA Sediment Excavation, Hauling, and Application - Area 6 (1,910 cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A12</td>
<td>SMA Sediment Excavation, Hauling, and Application - Area 7 (4,820 cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A13</td>
<td>SMA Sediment Excavation, Hauling, and Application - Area 2 (Remainder, approx. 6,500 cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A14</td>
<td>Biodegradable Mat</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A15</td>
<td>Salt River LWD Constrictor</td>
<td>17</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A16</td>
<td>Salt River Log Cover Structure</td>
<td>2</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A17</td>
<td>Salt River Guide Log</td>
<td>23</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A18</td>
<td>Avian Habitat Log</td>
<td>24</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A19</td>
<td>Rock Slope Protection (Light Class) for Ditch Confluence Near Salt River Station 257+50</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A20</td>
<td>Salt River Streambank Repair</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A21</td>
<td>Fencing and Gates</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A22</td>
<td>Fiber Rolls</td>
<td>500</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A23</td>
<td>Seeding and Mulching</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A24</td>
<td>Temporary Shoring and Bracing</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL BID SCHEDULE A (Add Items A1-A24)**

### BID SCHEDULE B (UPSTREAM OF SALT RIVER STATION 312+00)

<table>
<thead>
<tr>
<th>Item No</th>
<th>BID: Item Description</th>
<th>QTY</th>
<th>Unit</th>
<th>Unit Price Bid</th>
<th>Total Bid for Line Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Water Management, Dust/Erosion Control and Environmental Protection</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>Demolition, Debris Disposal and Salvage</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B3</td>
<td>Construction Surveying and Staking</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B4</td>
<td>Clearing and Grubbing</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B5</td>
<td>Channel Sediment Excavation for Native Backfill</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B6</td>
<td>Channel Sediment Excavation, Hauling, and Application - Area 4 (4,420 cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B7</td>
<td>Channel Sediment Excavation, Hauling, and Application - Area 2 (Remainder, approx. 8,370 cubic yards, in situ)</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Salt River Ecosystem Restoration Project - 2019 Construction

### PART 1: BIDDING REQUIREMENTS

**Construction Documents**

GHD Project #: 10653-8410410-11.02

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8</td>
<td>Biodegradable Mat</td>
<td>1</td>
<td>LS</td>
</tr>
<tr>
<td>B9</td>
<td>Rock Slope Protection for Salt River Grade Control</td>
<td>1</td>
<td>LS</td>
</tr>
<tr>
<td>B10</td>
<td>Fencing and Gates</td>
<td>1</td>
<td>LS</td>
</tr>
<tr>
<td>B11</td>
<td>Fiber Rolls</td>
<td>600</td>
<td>LF</td>
</tr>
<tr>
<td>B12</td>
<td>Seeding and Mulching</td>
<td>1</td>
<td>LS</td>
</tr>
<tr>
<td>B13</td>
<td>Temporary Shoring and Bracing</td>
<td>1</td>
<td>LS</td>
</tr>
</tbody>
</table>

**TOTAL BID SCHEDULE B (Add Items B1-B13)**

**TOTAL BID**

TOTAL BID (add Bid Schedule A plus Bid Schedule B) in Numbers:  

TOTAL BID in Words:  

Awards will be made to the lowest, responsive, responsible, BIDDER that also meets the minimum requirements outlined in the Bidder’s Qualification Summary. The low bidder shall be determined based on the TOTAL BID which is the sum of BID SCHEDULE 1 and BID SCHEDULE 2.

Additional bid items may be added prior to award or as a change order during the project and the bid amounts shown here shall be the agreed upon contract amount for the work.

It is further understood and agreed that the HCRCD reserves the right to eliminate any section of this proposal from the Contract without claim of the Contractor for profits lost.

Submitted By (Company) .............................................. Date __________________________

Name (Written) ........................................................ Signature ......................................

Receipt of the following Addenda is acknowledged:

________________________________________________________________________________________

The representations made herein are made under penalty of perjury.

Respectfully submitted:

Signature  

Title  

License Number  

Date  

License Expiration Date  

(SEAL - If Bid is by Corporation)
SUBCONTRACTOR DETAILS

The bidder certifies that:

A. __ I do not intend to subcontract any work on this project.

B. __ I do intend to subcontract portions of the work on this project.

NOTE: The bidder shall check box A or box B. If the bidder does not check a box, it will be deemed that he has checked box A.

If awarded the Contract, the bidder proposes to employ the following subcontractors who will perform work or labor or render service to the bidder in or about the work in an amount in excess of one-half of one percent (0.5%) of the total amount of Bidder’s proposal. Listing of sub-contractors is mandatory under Sections 4100-4108 of the California Government Code. If no subcontract work is proposed, except within the one-half of one percent (0.5%) limit set forth, the Bidder shall so state.

<table>
<thead>
<tr>
<th>NAME &amp; ADDRESS OF SUBCONTRACTOR</th>
<th>DESCRIPTION OF WORK TO BE SUBCONTRACTED</th>
<th>SUBCONTRACTOR’S CALIF. LIC. NO./DIR NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

If Contractor is using subcontractors to meet Bidder’s Qualifications, provide written explanation here:

__________________________________________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________________________________________________________________________________________
BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,
______________________________________________________ as Principal, and
______________________________________________________ as Surety, are hereby held and firmly bound unto
Humboldt County Resource Conservation District as Owner, in the penal sum of
___________________________ for the payment of which, well and truly to be made, we hereby jointly
and severally bind ourselves, successors and assigns.

Signed this ____ day of ________________, 2019.

The Condition of the above obligation is such that whereas the Principal has submitted to Humboldt
County Resource Conservation District a certain bid, attached hereto and hereby made a part hereof to
enter into a contract in writing, for the:

Salt River Ecosystem Restoration Project - 2019 Construction

NOW, THEREFORE,

(a) If said bid shall be rejected, or

(b) If said bid shall be accepted and the Principal
shall execute and deliver a contract in the Form
of Contract attached hereto (properly completed
in accordance with said Bid), and shall furnish
a bond for his faithful performance of said
contract, and for the payment of all persons
performing labor or furnishing materials in
connection therewith, and shall in all other
respects perform the agreement created by the
acceptance of said bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly
understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event,
exceed the penal amount of this obligation as herein stated.
The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

SEAL:

________________________________________
Principal
By:_______________________________________
Title:_____________________________________

________________________________________
Surety
By:_______________________________________
Title:_____________________________________

IMPORTANT - Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

NOTE: Bidder shall provide current "Power of Attorney" for Attorney-in-fact who signs Bid Bond.
(THE BIDDER’S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE CERTIFICATIONS WHICH ARE A PART OF THIS PROPOSAL)

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder__________________________________________________________, proposed subcontractor ____________________________________________, hereby certifies that he has_____, has not_____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President’s Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts, which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.
NONCOLLUSION AFFIDAVIT
(to be executed by bidder and submitted with bid)

The undersigned declares:

I am the ______________________ (title) of ______________________ (company), the party making the foregoing bid. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose. Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _________________ (date), at _____________________ (City), _________________ (State).

Dated: ___________________________  By: _______________________________________________________________________

Title: ______________________________________________________________________
DRUG FREE WORKPLACE

By submitting a bid, the Bidder asserts that they are in compliance with California’s Drug Free Workplace Act of 1990 and that they will provide a drug-free workplace by doing all of the following:

- Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in the person's or organization’s workplace and specifying the actions that will be taken against employees for violations of the prohibition.

Establishing a drug-free awareness program to inform employees about all of the following:
The dangers of drug abuse in the workplace.

- The person’s or organization’s policy of maintaining a drug-free workplace.
- Any available drug counseling, rehabilitation and employee assistance programs.
- The penalties that may be imposed upon employees for drug abuse violations.
- Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required by subdivision (a) of the act and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.
PART 2: CONTRACT FORMS
CONTRACT AGREEMENT

THIS AGREEMENT, MADE THIS __________ day of ______, 2019, by and between the HCRCD, hereinafter called “Owner,” and __________, doing business as (an individual), or (a partnership), or (a corporation), hereinafter called “Contractor.”

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the construction of project as defined in the Contract Documents.

2. The Contractor will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the project described herein.

3. The Contractor will commence the work required by the Contract Documents within 5 calendar days after the date of the Notice to Proceed and will complete the same within the time provided in Section B-35 of the General Conditions, unless the period for completion is extended otherwise by the Contract Documents.

4. The Contractor agrees to perform all of the work described in the Contract Documents and comply with terms therein for the sum shown in the Bid Schedule and as amended by approved change order.

5. The Contract Documents consist of the Bidding Requirements, Contract Forms, Conditions of the Contract, the Specifications, and the Plans, including all modifications thereof incorporated into the documents before their execution, and including all other requirements incorporated by specific reference thereto. These form the Contract.

6. The Owner will pay to the Contractor in the manner and at such times as set forth in the General Conditions such amounts as required by the Contract Documents.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

8. The general prevailing rates of per diem wages shall be paid by the Contractor.

9. DIR Registration. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) or be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

10. In response to Labor Code section 1773.3, the PWC-100 form has been completed by the awarding agency and provided to the Department of Industrial Relations within five days of the award. This form allows contractors and subcontractors to upload electronic certified payroll records to the Labor Commissioner (required for all projects awarded on or after April 1, 2015).
IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in quadruplicate, each of which shall be deemed an original on the date first above written.

Humboldt County RCD
Owner

By __________________________
Curtis Ihle, Interim Executive Director
As authorized by the
Humboldt County RCD

ATTEST:

(seal)

Notary Public

Contractor (Seal)

By __________________________

License No.:____________________
Expiration:____________________
DIR No.:____________________
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That

__________________________________________________________________________
(Name of Contractor)

__________________________________________________________________________
(Address of Contractor)

a _________________________________________, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

__________________________________________________________________________
(Name of Surety)

__________________________________________________________________________
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

Humboldt County Resource Conservation District

5630 South Broadway Eureka CA, 95503

(Address of Owner)

hereinafter called Owner, in the penal sum of

____________________________________________ Dollars, in lawful money of the United States, for
the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly
and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain
contract with the Owner, dated ______ day of __________________, 20____, a copy of which is hereto
attached and made a part hereof for the installation of:

____________________________________________________________________________
____________________________________________________________________________

NOW, THEREFORE, If the Principal shall well, truly and faithfully perform its duties, all the undertaking,
covenants, terms, conditions, and agreements of said contract during the original term thereof, and any
extensions thereof which may be granted by the Owner, with or without notice to the Surety and during
one year (minimum) guaranty period, and if he shall satisfy all claims and demands incurred under such
contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may
suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense
which the Owner may incur in making good any default, then this obligation shall be void; otherwise to
remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no
change, extension of time, alteration or addition to the terms of the Contract or to the work to be
performed thereunder of the Specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each one of which shall be deemed an original, this_______ day of ____________, 2019.

ATTEST:

__________________________________________
Principal

________________________
(Principal) Secretary

________________________
(SEAL)

________________________
(Address)

Witness as to Principal

________________________
(Address)

ATTEST:

________________________
Surety

________________________
By

________________________
Attorney-in-Fact

Witness as to Surety

________________________
(Address)

________________________
(Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department’s most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.
PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

________________________________________
(Name of Contractor)

________________________________________
(Address of Contractor)

a _________________________________________________, hereinafter
(Corporation, Partnership, or Individual)
called Principal, and _______________________________________________
(Name of Surety)

________________________________________
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto:

The Humboldt County Resource Conservation District

________________________________________
(Address of Owner)

hereinafter called Owner, in the penal sum of______________________________

________________________________________ Dollars ($________________) in lawful money of the
United States, for the payment of which sum well and truly to be made, we bind ourselves, successors,
and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain
contract with the Owner, dated _____ day of _____________, 20____, a copy of which is hereto attached
and made a part hereof for the construction of:

Salt River Ecosystem Restoration Project - 2019 Construction

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors,
and corporations furnishing materials for or performing labor in the prosecution of the work provided for in
such contract, and any authorized extension or modification thereof, including all amounts due for
materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed
or used in connection with the construction of such work, and all insurance premiums of said work, and
for all wages and fringe benefits of labor, performed in such work, whether by subcontractor or otherwise,
then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulated and agrees that no
change, extension of time, alteration or addition to the terms of the contract or to the work to be
performed thereunder or the specifications accompanying the same shall in any wise affect its obligation
on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition
to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the
right of any beneficiary hereunder, whose claim may be unsatisfied.
IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each one of which shall be deemed an original, this ______ day of _____________, 20____.

ATTEST:

______________________________  Principal
(Principal) Secretary

______________________________  By______________________________

______________________________  Address

______________________________  Witness as to Principal

______________________________  Address

ATTEST:

______________________________  Surety

______________________________  By______________________________

Witness as to Surety

______________________________  Attorney-in-Fact

______________________________  Address

______________________________  ____________

Address

Witness as to Surety

______________________________

______________________________

Address

Address

Witness as to Surety

______________________________

______________________________

Address

Address

NOTE: Date of bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.
NOTICE OF AWARD

TO: _____________________
________________________
________________________

PROJECT Description:

Salt River Ecosystem Restoration Project - 2019 Construction

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for BIDS dated ___________________ and Information for BIDDERS.

You are hereby notified that your BID for the Bid Schedule has been accepted for items in the amount of $__________________________

You are required by the Information for BIDDERS to execute the Agreement and furnish the required Contractor's certificates of insurance within fourteen (14) calendar days from the date this Notice is received by you.

If you fail to execute said Agreement and to furnish said INSURANCE within fourteen (14) calendar days from the date of receipt of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER within two (2) calendar days.

Dated this ___________ day of ________, 2019

Owner _________ Humboldt County Resource Conservation District

By ______________________________ Title ______________________________

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by:

______________________________________________

This the ___________ day of__________________________, 20__

By __________________________ Title ______________________________
NOTICE TO PROCEED

TO: __________________________
DATE: __________________________
PROJECT: Salt River Ecosystem Restoration
2019 Construction

You are hereby notified to commence work in accordance with the Agreement dated on or before __________________, and you are to complete the work within ______ consecutive days thereafter.
The date of completion of all work is therefore __________________, 2019.

Humboldt County RCD
Owner

By ____________________________
Curtis Ihle, Interim Executive Director

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by __________________________
this the _______ day of ________________, 2019.

By ____________________________
CONTRACTOR'S CERTIFICATE REGARDING WORKMEN'S COMPENSATION

Labor Code Section 3700,

“Every employer except the State and all political subdivisions or institutions thereof, shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.”

I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workmen's compensation or to undertake self-insurance in accordance with the provisions before commencing the performance of the work of this contract.

By ______________________________
Title ______________________________
Date ______________________________

(In accordance with Article 5 (commencing at Section 1860, Chapter 1, Part 7, Division 2, of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this contract).
PART 3: FEDERAL GRANTS

SPECIAL PROVISIONS
Supplemental Contract Requirements


FEDERAL TERMS AND CONDITIONS - During the performance of the contract, the Contractor must agree to comply with all applicable Federal laws and regulations described in Appendix II to Part 200 of the CFR, including but not limited to the following:

(A) Breach of contract – See applicable General Contract section

(B) Termination for Cause and Convenience – See applicable General Contract section

(C) Equal Employment Opportunity – Contracts are subject to Executive Order 11246 which prohibits employment discrimination by Federal contractors and subcontractors and federally-assisted construction contractors and subcontractors. Bidders must complete and submit the attached “Equal Employment Opportunity Certification” with their bid.

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and
the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

(D) Davis/Bacon Prevailing Wages and Copeland Anti-Kickback Act – Per 29 C.F.R. § 5.5(a)

Davis Bacon Prevailing Wages
This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

This is a federally-assisted project and Davis-Bacon (DBRA) requirements will be strictly enforced. Federal Labor Standards will apply. Contractor must adhere to Title 29 CFR 5.5. Prime Contractor must include in all his contracts with any subcontractors that they are to adhere to Title 29 CFR 5.5 (a) 1-10.

The Federal Wage Determination for this Project is CA190004 5/13/19 CA4

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers
or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security
numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.
The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).


Compliance with the Copeland “Anti-Kickback”

(1) Contractor. The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

(2) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as the FEMA may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.

(3) Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. §5.12.
(E) Contract Work Hours and Safety Standards Act

Compliance with the Contract Work Hours and Safety Standards Act.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The Humboldt County RCD shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

(F) Rights to Inventions made under Contract – Not applicable to this contract

(G) Clean Air Act and Federal Waters Pollution Control Act

Clean Air Act

(1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
(2) The contractor agrees to report each violation to the Humboldt County RCD and understands and agrees that the Humboldt County RCD will, in turn, report each violation as required to assure notification to the (name of recipient), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA.

Federal Water Pollution Control Act

(1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

(2) The contractor agrees to report each violation to the Humboldt County RCD and understands and agrees that the Humboldt County RCD will, in turn, report each violation as required to assure notification to the appropriate Environmental Protection Agency Regional Office.

(3) The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA.

(H) Energy Efficiency - The Contractor shall comply with the mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C.6201).

(I) Debarment and Suspension - Any contractor/subcontractor who is ineligible to perform work on a public works project pursuant to Labor Code Sections 1777.1 or 1777.7 or is currently on the governmentwide “Excluded Parties List System” in the System for Award Management (SAM) is prohibited from performing work on this Project. Bidders must complete and submit the attached “Debarment and Suspension Certification” with their bid.

Debarment and Suspension

(1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

(2) The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) This certification is a material representation of fact relied upon by the Humboldt County RCD. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to (name of state agency serving as recipient and name of subrecipient), the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

(J) **Byrd Anti-Lobbying Amendment** - Bidders must complete and submit the attached “Byrd Anti-Lobbying Amendment Compliance and Certification” with their bid.


Contractors shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

(K) **Procurement of recovered materials**

(1) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired-

(i) Competitively within a timeframe providing for compliance with the contract performance schedule;

(ii) Meeting contract performance requirements; or

(iii) At a reasonable price.

(2) Information about this requirement, along with the list of EPA-designate items, is available at EPA’s Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program.

(L) **Additional Requirements**

**Access to Records**

(1) The contractor agrees to provide Humboldt County RCD, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

(2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
(3) The contractor agrees to provide the Grant Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the Contract.

BYRD ANTI-LOBBYING AMENDMENT COMPLIANCE AND CERTIFICATION

The undersigned [Contractor] certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying” in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, ___________________________________________, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

________________________________________________________
Signature of Contractor’s Authorized Official

________________________________________________________
Name and Title of Contractor’s Authorized Official

________________________________________________________
Date
DEBARMENT AND SUSPENSION CERTIFICATION

The undersigned [Contractor] certifies, to the best of its knowledge and belief, that:

The Offeror and/or any of its Principals:

– Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

– Have not, within a three year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

– Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

The Offeror has not, within a three year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

"Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

The Offeror shall provide immediate written notice to the HCRCD if, at any time prior to subcontract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the HCRCD may render the Offeror nonresponsible.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous
certification, in addition to other remedies available to the HCRCD, the HCRCD may terminate the contract resulting from this solicitation for default.

________________________________________
Signature of Contractor’s Authorized Official

________________________________________
Name and Title of Contractor’s Authorized Official

________________________________________
Company Name

________________________________________
Date
PART 4: CONDITIONS OF THE CONTRACT
SECTION A: DEFINITIONS AND TERMS

A-1 General

Wherever the following abbreviations and terms, or pronouns in place of them, are used in these Conditions and other Contract Documents of which these Conditions are a part, the intent and meaning shall be interpreted as provided below.

A-2 Abbreviations

The following abbreviations may be used in the Contract Documents:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Aluminum Association</td>
</tr>
<tr>
<td>AASHO</td>
<td>American Association of State Highway Officials</td>
</tr>
<tr>
<td>ABMA</td>
<td>American Boiler Manufacturer's Association</td>
</tr>
<tr>
<td>ACI</td>
<td>The American Concrete Institute</td>
</tr>
<tr>
<td>AGA</td>
<td>American Gas Association</td>
</tr>
<tr>
<td>AGC</td>
<td>Associated General Contractors</td>
</tr>
<tr>
<td>AGMA</td>
<td>American Gear Manufacturer's Association</td>
</tr>
<tr>
<td>AI</td>
<td>The Asphalt Institute</td>
</tr>
<tr>
<td>AIA</td>
<td>American Institute of Engineers</td>
</tr>
<tr>
<td>AISC</td>
<td>American Institute of Steel Construction</td>
</tr>
<tr>
<td>AISI</td>
<td>American Iron and Steel Institute</td>
</tr>
<tr>
<td>ALSC</td>
<td>American Lumber Standards Committee</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute, Inc.</td>
</tr>
<tr>
<td>API</td>
<td>American Petroleum Institute</td>
</tr>
<tr>
<td>APWA</td>
<td>American Public Works Association</td>
</tr>
<tr>
<td>AREA</td>
<td>American Railway Engineering Association</td>
</tr>
<tr>
<td>ASCE</td>
<td>American Society of Civil Engineers</td>
</tr>
<tr>
<td>ASME</td>
<td>American Society of Mechanical Engineers</td>
</tr>
<tr>
<td>ASTM</td>
<td>American Society for Testing and Materials</td>
</tr>
<tr>
<td>AWPA</td>
<td>American Wood Preservers' Association</td>
</tr>
<tr>
<td>AWS</td>
<td>American Welding Society</td>
</tr>
<tr>
<td>AWWA</td>
<td>American Water Works Association</td>
</tr>
<tr>
<td>BHMA</td>
<td>Builders Hardware Manufacturers Association</td>
</tr>
<tr>
<td>CCMTC</td>
<td>California Concrete Masonry Technical Committee</td>
</tr>
<tr>
<td>CRSI</td>
<td>Concrete Reinforcement Steel Institute</td>
</tr>
<tr>
<td>DFPA</td>
<td>Douglas Fir Plywood Association</td>
</tr>
<tr>
<td>ETL</td>
<td>Electrical Testing Laboratory</td>
</tr>
<tr>
<td>FS</td>
<td>Federal Specification</td>
</tr>
<tr>
<td>ICBO</td>
<td>International Conference of Building Officials</td>
</tr>
<tr>
<td>IEEE</td>
<td>The Institute of Electrical and Electronics Engineers</td>
</tr>
<tr>
<td>IES</td>
<td>Illuminating Engineering Society</td>
</tr>
<tr>
<td>IPCEA</td>
<td>Insulated Power Cable Engineers Association</td>
</tr>
<tr>
<td>MBMA</td>
<td>Metal Building Manufacturer's Association</td>
</tr>
<tr>
<td>MSS</td>
<td>Manufacturers Standardization Society of the Valve and Fitting Industry Standards</td>
</tr>
<tr>
<td>NBFU</td>
<td>National Board of Fire Underwriters</td>
</tr>
<tr>
<td>NBS</td>
<td>National Buildings Standards</td>
</tr>
<tr>
<td>NEC</td>
<td>National Electrical Code</td>
</tr>
<tr>
<td>NEMA</td>
<td>National Electrical Manufacturers Association</td>
</tr>
</tbody>
</table>
A-3 Definitions

(a) Acceptance - The formal written acceptance by the HCRCD of the entire Contract which has been completed in all respects in accordance with the Specifications and any approved modifications.

(b) Addenda - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents, Drawings and Specifications by additions, deletions, clarifications or corrections.

(c) As Approved - The words "as approved" unless otherwise qualified, shall be understood to be followed by the words "by the Engineer."

(d) Bid - The offer of the bidder for the work when made out and submitted on the prescribed bid form, properly signed and guaranteed. A Bid is also known as a Proposal.

(e) Bid Bond - The cash, cashier's check, certified check, or bidder's bond accompanying the bid submitted by the bidder, as a guarantee that the bidder will enter into a Contract with the HCRCD for the performance of work herein described.

(f) Bidder - Any individual, firm, partnership or corporation submitting a bid for the work contemplated, and acting directly or through a duly authorized representative.

(g) Change Orders - A written order to the Contractor authorizing an addition, deletion, or revision in the work within the general scope of the Contract Documents or authorizing adjustment in the Contract price or Contract time.

(h) Claim - A separate demand by the Contractor for (i) a time extension, (ii) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (iii) an amount the payment of which is disputed by the HCRCD.

(i) Contract - The written agreement covering the performance of the work and the furnishing of labor, materials, tools and equipment in the construction of the work. The Contract shall
include all Contract Documents and supplemental agreements amending or extending the work contemplated which may be required to complete the work in a substantial and acceptable manner. Supplemental agreements are written agreements covering alterations, amendments or extensions to the Contract and include Addenda and Contract Change Orders.

(k) **Contract Documents** - The Contract Documents are any or all of the documents listed in Article I of the Contract.

(l) **Contract Price** - Total monies payable to the Contractor under the terms and conditions of the Contract Documents.

(m) **Contract Time** - The numbers of days stated in the Contract Documents for the completion of work.

(n) **Contractor** - The person or persons, firm, partnership or corporation or other entity who has entered into the Contract with the HCRCD to perform the work.

(o) **Contract Drawings** - “Contract Drawings” or “drawings” means and includes (i) all drawings which have been prepared on behalf of the HCRCD and which are included in the Contract Documents and all modifying drawings issued by addenda thereto; (ii) all drawings submitted pursuant to the terms of the Contract by the Contractor with his proposal and by the Contractor to the HCRCD during the progress of the work when accepted by the Engineer. Except where a specific type of drawing is indicated, the terms “Drawings” and “Plans” are used interchangeably throughout the Contract Documents and the Plans are Drawings as defined above.

(q) **County** - County of Humboldt, California.

(r) **Date of Execution of the Contract** - The date on which the Contract is signed by the HCRCD’s authorized representative.

(s) **Datum** - The figures given in the Specifications or upon the drawings after the word "Elevation” or an abbreviation of it, shall mean NAVD 88 datum, unless noted otherwise.

(t) **Days** - Unless otherwise designated, days as used in the Contract Documents shall mean calendar days.

(u) **Engineer or Construction Manager** - Wherever in these documents the word “Engineer” or “Construction Manager” appears, it shall be understood to mean GHD Inc. (formerly Winzler & Kelly). The Engineer/Construction Manager will have final authority as regards to contract administration, field inspection, and related items.

(v) **Field Order** - A written order effecting a change in the Work not involving an adjustment in the Contract Price or an extension of Contract Time, issued by the Engineer to the Contractor during construction.

(h) **HCRCD** - The HUMBOLDT COUNTY RESOURCE CONSERVATION DISTRICT, may also be referred to as the Owner, District, HCRCD or Humboldt County RCD.

(w) **His** - "His" shall include "her" and "its".

(x) **Install** - "Install" wherever and in whatever manner used shall mean the installation, complete in place of an item.

(y) **Notice of Award** - The written notice of the acceptance of the Bid from the HCRCD to the successful Bidder.
(z) **Notice to Proceed** - Written communication issued by the HCRCDD to the Contractor authorizing him to proceed with the work and establishing the date of commencement of the work.

(aa) **Or Equal** - The terms "or equal" or "approved equal" shall be understood to indicate that the "equal" product be the same or better than the product named in function, performance, reliability, quality and general configuration. Determination of equality in reference to the project design requirement will be made by the Engineer.

(bb) **HCRCDD Project Representative** - The authorized representative of the HCRCDD who is assigned to the project site or any part thereof.

(cc) **Plans or Drawings** - The term "Plans or Drawings" refers to the official Plans, profiles, cross sections, elevations, details, and other working drawings and supplementary drawings, or reproductions thereof, signed by the Engineer, which show the location, character, dimensions, and details of the work to be performed. Plans may either be bound in the same book as the balance of the Contract Documents or bound in separate sets, and are a part of the Contract Documents, regardless of the method of binding.

(dd) **Project** - The undertaking performed as provided by the Contract Documents.

(ee) **Provide** - "Provide" wherever and in whatever manner used shall be understood to mean furnish and install.

(ff) **Project Geotechnical Engineer** – as designated by HCRCDD or County of Humboldt.

(gg) **Resident Project Representative** - Authorized representative of the Engineer who is assigned to the Project or any part thereof.

(hh) **RCSD** - Riverside Community Services District - Special District Potable Water Supplier

(ii) **Service of Notice** - Any notice from one party to the other under the Contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative thereof. Any such notice shall not be effective for any purpose whatsoever unless service in the following manner:

(i) If the notice is given to the HCRCDD by personal delivery thereof, the HCRCDD’S Project Representative or by depositing the notice in the U.S. mail, enclosed in a sealed envelope addressed to HCRCDD, 5630 South Broadway, Eureka California 95503 postage prepaid, by certified mail return receipt requested.

(ii) If the notice is given to the Contractor, by personal delivery to the Contractor or its duly authorized representative at the project site or by depositing in the U.S. mail, enclosed in a sealed envelope address to the Contractor on the Contract Form, postage prepaid, by certified mail, return receipt requested.

(iii) If the notice is given to the surety or any other person, by personal delivery to such surety or other person by personal delivery to such surety or other person by depositing in the U.S. mail, enclosed in a sealed envelope, addressed to the surety or other person at the address of such surety or other person last communicated to the party giving the notice, postage prepaid, by certified mail return receipt requested.

(jj) **Shall or Will** – “Shall,” or “Will,” whenever used to stipulate anything, means shall or will be done or be performed by either the Contractor or the HCRCDD and means that the Contractor or the HCRCDD has thereby entered into a covenant with the other party to do or perform the same.
(kk) **Shop Drawing** - All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a subcontractor, manufacturer, supplier or distributor, which illustrate how specific portions of the Work shall be fabricated or installed.

(II) **Shown** – “Shown” “indicated” “detailed” and words of like import, wherever and in whatever manner used, with or without reference to the drawings, means shown, indicated or detailed on the drawings or plans.

(mm) **Specifications** - A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship, including the General Conditions and Supplemental General Conditions.

(nn) **Specified** – “Specified” “described” or “noted” wherever and in whatever manner used, means as specified, described or noted in the Contract Documents.

(oo) **Subcontractors** - The term “Subcontractor”, as employed herein, includes only those having a direct contract with the Contractor and it includes one who furnishes material worked to a special design according to the plans or specifications of this work, but does not include one who merely furnishes material not so worked and would be considered a supplier only.

(pp) **Substantial Completion** - That date as certified by the Engineer when the construction of the Project or a specified part thereof is sufficiently completed, in accordance with the Contract Documents, so that the Project or specified part can be utilized for the purposes for which it is intended.

The Engineer may, at its sole discretion, issue a written notice of substantial completion for the purpose of establishing the starting date for specific equipment guarantees, and to establish the date that the HCRCD will assume the responsibility for the cost of operating such equipment. Said notice shall not be considered as final acceptance of any portion of the work or relieve the Contractor from completing the remaining work within the specified time and in full compliance with the Contract Documents.

(qq) **Sufficient** – “Sufficient” “necessary” or “proper” “acceptable” “satisfactory” “desirable” and words of like import, wherever and in whatever manner used, with or without reference to the Engineer, means sufficient, necessary, proper, acceptable, satisfactory and desirable in the judgment of the Engineer.

(rr) **Supplementary Conditions** - Modifications to General Conditions required by a Federal Agency for participation in the PROJECT and approved by the Agency in writing prior to inclusion in the Contract Documents, or such requirements that may be imposed by applicable State laws.

References to “Supplemental General Conditions” in the General Conditions and elsewhere in the Contract Documents shall be construed to read “Supplementary Conditions”

(ss) **Supplier** - Any person or organization who supplies materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.

(tt) **Time Limits** - All time limits stated in the Contract Documents are of the essence of the Contract.

(uu) **Work** - All the work specified, indicated, shown or contemplated in the Contract to construct the improvements, including all alterations, amendments or extensions thereto made by Contract Change Order or other written orders of the Engineer.

(vv) **Written Notice** - “Written Notice” shall be deemed to have been duly served when delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom
it is intended, or if delivered at or sent by registered mail to the last business address known to it who gives the notice.

(ww) Whenever in the Specifications or upon the drawings the words DIRECTED, REQUIRED, PERMITTED, ORDERED, DESIGNATED, PRESCRIBED, or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation or prescription of the Engineer is intended, and similarly the words APPROVED, ACCEPTABLE, SATISFACTORY, or words of like import, shall mean approved or acceptable to, or satisfactory to the Engineer, unless otherwise expressly stated.
SECTION B: GENERAL CONDITIONS

ARTICLE I. SCOPE OF WORK

B-1 Intent of Contract Documents

The intent of the Contract Documents is to prescribe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Contract. Where the Specifications and plans describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall furnish all labor, materials, tools, equipment and incidentals and do all the work involved in performing the Contract in a satisfactory and workmanlike manner, ready for use occupancy or operation by the HCRCD.

The technical provisions are presented in sections for convenience. However, this presentation does not necessarily delineate trades or limits of responsibility. All sections of the Specifications and plans are interdependent and applicable to the project as a whole.

The Contract Documents are complementary, and what is called for in any one shall be as binding as if called for in all.

Anything shown on the drawings and not mentioned in the specifications or mentioned in the specifications and not shown on the drawings shall have the same effect as if shown or mentioned respectively in both. Any work shown on one drawing shall be construed to be shown in all drawings and the Contractor will coordinate the work and the drawings. If any portion of the Contract Documents shall be in conflict with any other portion, the various documents comprising the Contract Documents shall govern in the following order of precedence: The HCRCD-Contractor Contract; the Bid; any Supplementary or Special Conditions; The condition of all permits; Instructions to Bidders; the General Conditions; the Specifications; the Drawings. Technical Specifications take priority over general Specifications and detail Drawings take precedence over general Drawings. As between schedules and information given on Drawings, the Schedules shall govern. As between figures given on Drawings and the scales measurements, the figures shall govern. As between large-scale Drawings and small-scale Drawings, the larger scale shall govern. Any conflict or inconsistency between or in the drawings shall be submitted to the Engineer through the HCRCD’S Project Representative or Resident Project Representative in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the Contractor’s own risk.

B-2 Contractor’s Understanding

It is understood and agreed that the Contractor has, by careful examination, satisfied itself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, all permit conditions and requirements, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversation with any officer, agent or employee of the HCRCD, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.
B-3 Changes in the Work

The HCRCD may, at any time, by written order make changes in the work including but not limited to: (a) changes in the specifications on drawings; (b) changes in the sequence, method or manner of performance of the work; (c) changes in the owner-furnished facilities, equipment, materials, services or site; or (d) changes directing acceleration of the work. If such changes cause an increase or decrease in the Contractor's cost of, or time required for, performance of the Contract an equitable adjustment will be made and the Contract modified in writing accordingly.

Such modification will be in the form of a Contract Change Order which will set forth the work to be done or the method by which the change and cost adjustment, if any, will be determined, and the time of completion of the work.

The compensation to be paid for any extra work or change shall be determined in one or more of the following ways or at HCRCD's sole election:

A. By unit prices previously approved (unit prices previously approved shall be used in all cases for similar units unless mutually agreed that for some reason they are not applicable);

B. By estimate and acceptance of an agreed upon lump sum; or

C. On a time and materials basis involving the actual necessary expenses and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual necessary expense to cover other costs that are not covered under labor, equipment, materials, and subcontractors. In the events that items (a) and (b) above are not applicable, then this latter method (c) shall be used. Markup by subcontractors on their work shall no exceed fifteen percent. Contractor's markup on subcontractor's work shall not exceed five (5) percent.

The Contractor shall keep full and complete records of the actual cost of such work in the form and manner prescribed by the Engineer and shall permit the Engineer to have access to such records as may be necessary to assist in the determination of the compensation payable for such work.
The Engineer also may at any time by issuing a Field Order make changes in the details of the Work. The Contractor shall proceed with the performance of any change in the work so ordered by the Engineer unless the Contractor believes that such Field Order entitles it to a change in the Contract Price or Time, or both in which event the Contractor shall give the Engineer written notice thereof within seven (7) days after the receipt of the ordered change. The Contractor shall not execute such changes pending the receipt of an executed change order or further instruction from the HCRCD.

If the Contractor is delayed in completing by reason of any change made pursuant to this section, the time for completion of the work shall be extended by change order for a period agreed to, commensurate with such delay. The Contractor shall not be subjected to any claim for liquidated damages for this period of time, but the Contractor shall have no claim for any other compensation for any such delay.

**B-4 Procedures and Allowable Costs on Changes**

(a) All changes which affect the cost or time of the construction of the project must be authorized by means of a Change Order. The Change Order will include extra work, work for which quantities have been altered from those shown in the bidding schedule, as well as decreases or increases in the quantities of installed units which are different than those shown in the bidding schedule because of final measurements. All changes should be recorded on a Change Order as they occur. Each Change Order must contain complete and detailed justification for all items addressed by the Change Order.

(b) If the change in or addition to the work will result in an increase in the contract sum, the HCRCD shall have the right to require the performance thereof in any of the following ways, at HCRCD's sole election:

(i) By unit prices previously approved (unit prices previously approved shall be used in all cases for similar units unless mutually agreed that for some reason they are not applicable);

(ii) By estimate and acceptance of an agreed upon lump sum; or

(iii) On a time and materials basis involving the actual necessary expenses and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual necessary expense to cover other costs that are not covered under labor, equipment, materials, and subcontractors. In the events that items (a) and (b) above are not applicable, then this latter method (c) shall be used. Markup by subcontractors on their work shall not exceed fifteen percent. Contractor's markup on subcontractor's work shall not exceed five percent (5%).

(c) If the HCRCD elects to have the Change in the Work performed on a lump sum basis, such election shall be based on a lump sum proposal which shall be submitted by the contractor within ten (10) days of the HCRCD's request therefore. Request for a lump sum proposal shall not be deemed an election to have the work performed on a lump sum basis. The Contractor's proposal shall be itemized and segregated by labor and materials for the various components of the change (no aggregate labor total will be acceptable) and shall be accompanied by signed proposals of any subcontractors which will perform any portion of the change, and of any persons who will furnish materials or equipment for incorporation therein. The proposal shall also include the contractor's estimate of the time required to perform said changes or additional work.

The portion of the proposal relating to labor, whether by the Contractor's forces or the forces of any of its Subcontractors, may include reasonably anticipated gross wages of Job Site labor, including foremen, who will be directly involved in the Change in the Work (for such time as they will be so involved), plus payroll costs (including premium costs of overtime labor, if overtime is anticipated, social security, Federal or State unemployment insurance taxes and fringe benefits required by collective
bargaining agreements entered into by the Contractor or any such Subcontractor in connection with such labor) and up to fifteen percent (15%) of such anticipated gross wages, but not payroll costs as overhead and profit for the Contractor or any such Subcontractor, as applicable (such overhead and profit to include all supervision except foremen.)

The portion of the proposal relating to materials may include the reasonably anticipated direct costs to the Contractor or to any of its Subcontractors of materials to be purchased for incorporation in the Change in the Work, plus transportation and applicable sales or use taxes and up to fifteen percent (15%) of such anticipated gross wages, but not payroll costs, as overhead and profit for the Contractor or any such Subcontractor, as applicable (such overhead and profit to include all supervision except foremen.)

The portion of the proposal relating to materials may include the reasonably anticipated direct costs to the Contractor or to any of its Subcontractors of materials to be purchased for incorporation in the Change in the Work, plus transportation and applicable sales or use taxes and up to fifteen percent (15%) of said direct material costs as indirect costs for the Contractor or any such subcontractor (such indirect costs shall include all small tools), and may further include the Contractor's and any of its Subcontractors' reasonably anticipated rental costs in connection with the Change in the Work (either actual rates or discounted local published rates), plus up to five percent (5%) commission for the Contractor or any such subcontractors, as applicable. If any of the items included in the lump sum proposal are covered by unit prices contained in the contract document, the HCRCD may, if it requires the Change in the Work to be performed on a lump sum basis, elect to use these unit prices in lieu of the similar items included in the lump sum proposal in which event an appropriate deduction will be made in lump sum amount. No overhead and profit shall be applied to any unit prices.

The lump sum proposal may include up to five percent (5%) of the amount which the Contractor will pay to any of its Subcontractors for the Change in the Work as a commission to the Contractor.

(d) In the event that the Contractor fails to submit its proposal within the designated period, the Engineer may direct the Contractor to proceed with the Change or Addition to the Work and the Contractor shall so proceed. The Engineer shall determine the reasonable costs and time to perform the Work in question, which determination when approved by HCRCD shall be final and binding upon the Contractor.

(e) In the event that the parties are unable to agree as to the reasonable costs and time to perform the change in or addition to the work based upon the Contractor's proposal and the Engineer and HCRCD do not elect to have the change in the work performed on a time and material basis, the Engineer and HCRCD shall make a determination of the reasonable cost and time to perform the change in the work, based upon their own estimates, the Contractor's submission or combination thereof. A Change Order shall be issued for the amount of costs and time determined by the Engineer and the HCRCD and shall become binding upon the Contractor unless the Contractor submits its protest in writing to the HCRCD within thirty (30) days of the issuance of the Change Order. The HCRCD has the right to direct the Contractor in writing to perform the Change in the Work which is the subject of the Change Order. Failure of the parties to reach agreement regarding the costs and time of the performing the Change in the Work and/or any pending protest shall not relieve the Contractor from performing the Change in the work promptly and expeditiously.

(f) If the HCRCD elects to have the Change in the Work performed on a time and material basis, the same shall be performed, whether by the Contractor's forces or the forces of any of its Subcontractors or Sub-subcontractors, at actual costs to the entity or entities performing the Change in the Work (without any charge for administration, clerical expense, supervision or superintendence of any nature whatsoever, including foremen, or the costs, use or rental of tools or plant), plus fifteen percent (15%) to cover other costs that are not covered under labor, equipment, materials, and subcontractors (except that this fifteen percent (15%) shall not be applied against any payroll costs, defined herein with respect to lump sum proposals). If the entity or entities actually performing the work are Subcontractors or Sub-subcontractors, the Contractor shall be allowed five percent (5%) of the total charge of the performing entity or entities (including mark-up) as Contractor's commission. No mark-ups shall be
allowed hereunder. The Contractor shall submit to the HCRCD daily work and material tickets, to include the identification number assigned to the Change in the Work, the location and description of the Change in the Work, the classification of labor employed (and names and social security numbers), the material used, the equipment rented (not tools) and such other evidence of cost as the HCRCD may require. The HCRCD may require authentication of all time and material tickets and invoices by persons designated by the HCRCD for such purpose. The failure of the Contractor to secure any required authentication shall, if the HCRCD elects to treat it as such, constitute a waiver by the Contractor of any claim for the cost of that portion of the Change in the Work covered by a non-authenticated ticket or invoice; provided, however, that the authentication of any such ticket or invoice by the HCRCD shall not constitute an acknowledgment by the HCRCD that the items thereon were reasonably required for the Change in the Work.

(g) No Additional percentage for actual necessary expense to cover other costs that are not covered under labor, equipment, materials, and subcontractors will be paid by the HCRCD on account of a Change in the Work except as specifically provided in this Section B-4. The additional percentage or commission as allowed under this paragraph, shall be deemed to include all costs and expenses which the Contractor or any of its Subcontractors may incur in the performance of the Change in the Work and which are not otherwise specifically recoverable by them pursuant to this paragraph.

(h) The Contractor shall not be entitled to any amount for indirect costs, damages or expenses of any nature, including, but not limited to, so-called "impact" costs, labor inefficiency, wage, material or other escalations beyond the prices upon which the proposal is based and to which the parties have agreed pursuant to the provisions of this section, and which the Contractor, its Subcontractors and Sub-subcontractors or any other person may incur as a result of delays, interferences, suspensions, changes in sequence or the like, for whatever cause, whether reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable, arising from the performance of any and all changes in the work performed pursuant to this section. It is understood and agreed that the Contractor's sole and exclusive remedy in such event shall be recovery of its direct costs as compensable hereunder and an extension of the time of the Contract, but only in accordance with the provisions of the Contract Documents.

The Contractor agrees that it shall not be entitled to claim damages for anticipated profits on any portion of work that may be deleted. The amount of any adjustment for work deleted shall be estimated at the time deletion of work is ordered and the estimated adjustment will be deducted for the subsequent monthly pay estimates.

The HCRCD reserves the right to contract with any person or firm other than the Contractor for any or all extra work.

B-5 Unilateral Change in or Addition to the Work

Notwithstanding the above, the HCRCD, directly or through the Engineer, may direct the Contractor in writing to perform changes in or additions to the scope of the contract. The Contractor shall perform such work and the parties shall proceed pursuant to the provisions of Section B-4.

B-6 Differing Site Conditions

The Contractor shall promptly, and before the following conditions are disturbed, notify the HCRCD in writing of any:

(a) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25118 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; or
Subsurface or latent physical conditions at the site differing from those indicated in the Contract Documents; or

Unknown conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The Engineer shall thereupon promptly investigate the conditions. If the Engineer finds that they do involve hazardous waste, or do materially differ and cause any decrease or increase in the Contractor's cost or time of performance, it will issue a change order as appropriate. Any increase or decrease in the cost of the work or the time for performance shall be adjusted in the manner provided herein for adjustments as to extra and/or additional work and changes. The procedures applicable to claims per extra costs shall then apply.

Contractor shall expect wet soil conditions and encountering deleterious materials that do not constitute a change.

**B-7 Claims for Extra Costs**

(a) The plans for work show the conditions as they are supposed or believed by the Engineer to exist, but it is neither intended nor to be inferred that the conditions as shown thereon constitute a representation by the HCRCD or its officers that such conditions are universally existent nor shall the HCRCD or any of its officers or representatives be liable for any loss sustained by the Contractor as a result of any variance between conditions as shown on the Plans and alternate conditions revealed during the progress of the Work, or otherwise.

(b) The HCRCD assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of this Contract, unless (1) such representations are expressly stated in the Contract, and (2) the Contract expressly provides that the responsibility therefore is assumed by the HCRCD.

(c) It is hereby mutually agreed that the Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act, or failure to act, by the Engineer or the HCRCD, or the happening of any event, thing or occurrence, unless the Contractor shall have given the Engineer due written notice of potential claims as hereinafter specified.

(d) The written notice of potential claims shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, the amount of the potential claim. Except as provided in Section B-6, the notice as above required shall be given to the Engineer at least 48 hours prior to the time that the Contractor commences performance of the work giving rise to the potential claim for additional compensation. If such notice is not given, the Contractor shall be barred from making any such claim for extra compensation.

(e) The Contractor may submit a claim to the Engineer concerning any matter for which a protest under Section B-3 or a notice of potential claim is filed within sixty (60) days following the submission of said protest or notice, unless, due to the nature of the claim or the uncompleted state of the work, it is impracticable to determine the amount or the extent of the claim within such period, in which case a claim may be submitted at the earliest time thereafter that such determination can be made, but in no event later than the final release by the Contractor provided for in Section B-72. The claims shall set forth clearly and in detail, for each item of additional compensation claimed, the reasons for the claim, reference to applicable provisions of the Specifications, the nature and the amount of the cost involved, the computations used in determining such costs, and all pertinent factual data. The Contractor shall maintain complete and accurate records of the cost or any portion of the work for which additional compensation is claimed, and shall provide the Engineer with copies thereof, as required.
(f) The Engineer will, within a reasonable time after submission of the Contractor's claim, make decisions in writing on all claims of the Contractor. All such decisions of the Engineer shall be final unless the Contractor shall within ten (10) days after receipt of the Engineer's decision, file with the Engineer a written protest, stating clearly and in detail the basis thereof. Such protest will be forwarded promptly by the Engineer to the HCRCD, which will issue a decision upon each such protest, and the HCRCD's decision will be final. Pending such decision, the Contractor shall proceed with its work in accordance with the determination or instructions of the Engineer. It is hereby agreed that the Contractor's failure to protest the Engineer's determination or instructions, within ten (10) days from and after the Engineer's determinations or instructions, shall constitute a waiver by the Contractor of all its rights to further protest, judicial or otherwise.

(g) It is the intention of this Section that the differences between the parties, arising under and by virtue of the Contract, be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible or other appropriate action promptly taken. The Contractor hereby agrees that it shall have no right to additional compensation for any claim that may be based on any act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was timely filed.

(h) In the event of an emergency endangering life or property, the Contractor shall act as stated in Section B-62 herein, and after execution of the emergency work shall present an accounting of labor, materials and equipment in connection therewith. The procedure for any payment that may be due for emergency work will be as specified in Section B-3 herein.

**B-8 Disputes**

Except as otherwise specifically provided in the Contract Documents, the Engineer will initially decide all claims of the Contractor and all disputes arising under and by virtue of the Contract. Such claim or dispute will be processed and decided by the Engineer as soon as practicable after its submission and the submission or availability of any additional information necessary to its decision. If the Contractor is dissatisfied with the Engineer's decision, the Contractor may, within 15 days from the date of the Engineer's decision, follow the procedures set forth in Section B-55. If the Contractor fails to follow the procedures set forth in Section B-55 within the 15 day period, then the Engineer's decision shall be final, conclusive and binding on the Contractor.

**B-9 Guarantee**

(a) In addition to warranties, representations and guarantees stated elsewhere in the Contract Documents, the Contractor unconditionally guarantees all materials and workmanship furnished hereunder, and agrees to replace at its sole cost and expense, and to the satisfaction of the Engineer and the HCRCD, any and all materials which may be defective or improperly installed.

(b) The Contractor shall repair or replace to the satisfaction of the Engineer any or all such work that may prove defective in workmanship or materials, ordinary wear and tear excepted, together with any other work which may be damaged or displaced in so doing.

(c) In the event of failure to comply with the above stated conditions within a reasonable time, the HCRCD is authorized to have the defect repaired and made good at the expense of the Contractor who will pay the costs and charges therefore immediately upon demand, including any reasonable management and administrative costs, and engineering, legal and other consultant fees incurred to enforce this section.
(d) The signing of the Contract by the Contractor shall constitute execution of the above
guarantees. Except as otherwise provided in this Contract, the guarantees and warranties shall remain in
effect through the one-year maintenance warranty period specified in the Faithful Performance Bond.
ARTICLE II. CONTROL OF WORK

B-10 Authority of the Engineer

(a) The Engineer is the representative of the HCRCD and has full authority to interpret the Contract Documents, to conduct the construction review and inspection of the Contractor's performance, and to decide questions which arise during the course of the work and its decisions on these matters shall be final and conclusive. The Engineer has the authority to reject all work and materials which do not conform to the Contract Documents, regulatory permits, and has the authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract.

(b) If at any time the Contractor's work force, tools, plant or equipment appear to the Engineer to be insufficient or inappropriate to secure the required quality of work or the proper rate of progress, the Engineer may order the Contractor to increase their efficiency, improve their professional and/or workmanship character, to augment their number or to substitute other personnel, new tools, plant or equipment, as the case may be, and the Contractor shall comply with such order.

Neither the failure of the Engineer to demand such increase of efficiency, number, or improvement, nor the compliance by the Contractor with the demand, shall relieve the Contractor of its obligation to provide quality work at the rate of progress necessary to complete the work within the specified time.

(c) The Engineer shall have the authority to make minor changes in the work, not involving extra costs, and not inconsistent with the purposes of the work.

(d) Any order given by the Engineer, not otherwise required by the Contract Documents to be in writing shall, on request of the Contractor, be given or confirmed by the Engineer in writing.

(e) Whenever work, methods of procedure, or any other matters are made subject to direction or approval, such direction or approval will be given by the Engineer.

(f) The Engineer shall not be responsible for the construction means, controls techniques, sequences procedures or construction safety.

(g) It is expressly agreed and understood that GHD will have no liability whatsoever resulting from the obligations entered into under the Contract; that the HCRCD must look solely to the Contractor for the furnishing of the work; that the Contractor must look solely to the HCRCD for payment; and that the HCRCD and the Contractor must look solely to each other for the enforcement of any claims or liabilities arising under or by reason of the Contract.
**B-11 Drawings**

(a) Drawings furnished herewith are for bidding purposes. The Engineer will furnish the Contractor additional copies of the Contract Documents and full-size plans. Additional copies may be obtained by paying the actual cost of reproduction. The Contractor shall have no claim for excusable delay on account of the failure of the Engineer to deliver such drawings unless the Engineer shall have failed to deliver the same within two weeks after receipt of written demand therefore from the Contractor. The Contractor shall keep one copy of said drawings, in good order, available to the Engineer and its representatives, and convenient to the working site. The Contractor shall maintain on the job site and make available to the Engineer on request, one current full-sized marked-up set of design drawings which accurately indicate all variations in the completed work that differ from the design information shown on the plans. If the Contractor, in the course of the work, finds any discrepancy between the drawings and the physical condition of the locality, or any errors or omissions in the drawings, or in the layout as given by points and instructions, it shall be the Contractor's duty to inform the Engineer in writing, and the Engineer will promptly verify the same. Any work done after such discovery, until authorized, will be done at the Contractor's risk. All drawings, Specifications, and copies thereof furnished by the Engineer are the property of the Engineer and shall not be reused on other work and, with the exception of the signed Contract sets, are to be returned to the Engineer, on request, at the completion of the work. All models are the property of the HCRCD. The Contractor may be furnished additional instructions and detail drawings by the Engineer as necessary to carry out the work required by the Contract Documents.

The additional drawings and instructions thus supplied, will become part of the Contract Documents. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.

(b) The drawings shall be supplemented by such shop drawings prepared by the Contractor as are necessary to adequately control the work. No changes shall be made by the Contractor in any shop drawings after they have been reviewed by the Engineer.

(c) Shop drawings for any structure shall include, but not be limited to: stress sheets, anchor bolt layouts, shop details, and erection plans, which shall be reviewed and accepted by the Engineer before any such work is performed.

(d) Contractor agrees that shop drawings processed by the Engineer are not Contract Change Orders; that the purpose of shop drawings submitted by the Contractor is to demonstrate to the Engineer that the Contractor understands the design concept, that it demonstrates its understanding by indicating which equipment and material it intends to furnish and by detailing the fabrication methods it intends to use.

(e) It is expressly understood, however, that favorable review of the Contractor's shop drawings shall not relieve the Contractor of any responsibility for accuracy of dimensions and details, or for mutual agreements of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of its shop drawings with the Specifications. Contractor further agrees that if deviations, discrepancies or conflicts between shop drawings and Specifications are discovered either prior to or after shop drawings are processed by the Engineer, the Specifications shall control and shall be followed.

(f) Unless otherwise stated, the Engineer shall have thirty (30) days from the date of receipt of shop drawings for review.

(g) Full compensation for furnishing all shop drawings shall be considered as included in the prices paid for the Contract items of work to which such drawings relate and no additional compensation will be allowed therefore. Any cost related to the Engineer's review of any particular set of shop drawings more than twice, due to incompleteness or unacceptability, shall be borne by the Contractor, and the HCRCD reserves the right to withhold such costs from payments due the Contractor.
When submitted for the Engineer's review, Shop Drawings shall bear the Contractor's certification that he has reviewed, checked and approved the Shop Drawings and that they are in conformance with the requirements of the Contract Documents.

That Portion of the Work requiring a Shop Drawing or sample submission shall not begin until the Shop Drawing or submission has been approved by the Engineer. A copy of each approved Shop Drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.

Acceptance by the Engineer of any drawing, method of work, or any information regarding materials and equipment the Contractor proposes to furnish shall not relieve the Contractor of his responsibility for any errors therein and shall not be regarded as an assumption of risks or liability by the Engineer or HCRCD, or any officer or employee thereof, and the Contractor shall have no claim under the Contract on account of the failure or partial failure or inefficiency or insufficiency of any plan or method or work or material and equipment so accepted. Such acceptance shall be considered to mean merely that the Engineer has no objection to the Contractor using, upon his own full responsibility, the plan or method of work proposed, or furnishing the materials and equipment proposed.

Permits and Licenses
Permits, licenses, and easements of a temporary or permanent nature, necessary for the execution of the work shall be secured and paid for by the Contractor, except as noted in Section B-32, and herein.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as shown on the plans and described in the Specifications. It shall promptly notify the Engineer in writing of any specification at variance therewith and any necessary changes shall be adjusted as provided in the Contract for changes in the work. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations and without such notice to the Engineer, it shall bear all costs arising therefrom.

Permit conditions are include in the appendices of the Specifications.

Conformity with Contract Documents and Allowable Deviations
Work and materials shall conform to the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on Contract Documents. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Engineer shall be the sole judge as to whether the work or materials deviate from the Specifications and plans, and its decision as to any allowable deviations therefrom shall be final and conclusive.

Whenever a material, article or piece of equipment is identified on the Drawings or Specifications by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the Contract Documents by reference to brand name or catalogue number, and if, in the opinion of the Engineer, such material, article, or piece of equipment is of equal substance and function to that specified, the Engineer may approve its substitution and use by the Contractor. Any cost differential shall be deductible from the Contract Price and the Contract Documents shall be appropriately modified by Change Order. The Contractor warrants that if substitutes are approved, no major changes in the function or general design of the Project will result. Incidental changes or extra component parts required to
accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time.

**B-15 Coordination and Interpretation of Contract Documents**

(a) The Contract Documents are complementary and a requirement occurring in one is as binding as though occurring in all.

(b) In the event of conflict between the plans and the Technical Specifications, the Technical Specifications shall govern, except that, where items are shown on the plans and are not specifically included in the Technical Specifications, the plans shall govern.

(c) Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Specifications and plans, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to them as part of the Contract. In the event of any doubt or question arising respecting the true meaning of the Specifications and plans, reference shall be made to the Engineer, whose decision thereon shall be final and conclusive.

(d) In the event of any discrepancy between any plans and the figures written thereon, the figures shall be taken as correct. Detailed drawings shall prevail over general drawings.

(e) Any reference made in these Specifications or on the plans to any Specification, standard, method, or publication of any scientific or technical society or other organization shall, in the absence of a specific designation to the contrary, be understood to refer to the Specification, standard, method, or publication in effect as of the date that the work is advertised for Bids.

**B-16 Subcontracts**

(a) The attention of the Contractor is directed to the provisions of Public Contract Code sections 4100-4113, regarding subcontracting and said provisions are by this reference incorporated herein and made a part hereof.

(b) Each Subcontract shall contain a suitable provision for the suspension or termination thereof should the work be suspended or terminated or should the Subcontractor neglect or fail to conform to every provision of the Contract Documents insofar as such provisions are relevant. No Subcontractor or supplier will be recognized as such, and all persons engaged in work will be considered as employees of the Contractor, and the Contractor will be held responsible for their work, which shall be subject to the provisions of the Contract Documents. The Contractor shall be fully responsible to the HCRCD for the acts or omissions of its Subcontractors and of the persons either directly or indirectly employed by him. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the HCRCD. If a legal action, including arbitration and litigation, against the HCRCD is initiated by a Subcontractor or Supplier, the Contractor shall reimburse the HCRCD for the amount of legal, engineering and all other expenses incurred by the HCRCD in defending itself in said action. A copy of each subcontract must be provided to HCRCD.

(d) The HCRCD and the Engineer reserve the right to approve all subcontractors. Such approval shall be a consideration to the awarding of the Contract and unless notification to the contrary is given to the Contractor prior to the signing of the Contract, the list of subcontractors which is submitted with its proposal will be deemed to be acceptable.

**B-17 Cooperation of Contractors**
(a) Should construction be under way by other forces or by other Contractors within or adjacent to the limits of the work specified or should work of any other nature be under way by other forces within or adjacent to said limits, the Contractor shall cooperate with all such other contractors or other forces to the end that any delay or hindrance to their work will be avoided. The right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.

(b) When two or more contractors are employed on related or adjacent work, each shall conduct its operation in such a manner as not to cause any unnecessary delay or hindrance to the other. Each contractor shall be responsible to the other for all damage to work, to persons or property caused to the other by its operations, and for loss caused the other due to its unnecessary delays or failure to finish the work within the time specified for completion.

B-18 Superintendence

(a) The Contractor shall designate in writing before starting work an individual as authorized representative who shall have the authority to represent and act for the Contractor. This authorized representative shall be present at the site of the work at all times while work is actually in progress on the Contract. When work is not in progress and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for any emergency work which may be required.

(b) The Contractor is solely responsible, at all times, for the superintendence of the work and for its safety and progress.

(c) Whenever the Contractor or its authorized representative is not present on any particular part of the work where it may be desired to give direction, orders will be given by the Engineer, which shall be received and obeyed by the superintendent or foreman who may have charge of the particular work in reference to which the orders are given.

(d) Any order given by the Engineer, not otherwise required by the Specifications to be in writing, will on request of the Contractor, be given or confirmed by the Engineer in writing.

B-19 Inspection of Work

(a) Unless otherwise provided, all equipment, materials, and work shall be subject to inspection and testing by the Engineer. The Engineer will observe the progress and quality of the work and determine, in general, if the work is proceeding in accordance with the intent of the Contract Documents. It shall not be required to make comprehensive or continuous inspections to check the quality of the work, and it shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. Visits and observations made by the Engineer shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the work and to furnish proper materials, labor, equipment and tools, and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

(b) Whenever the Contractor varies the period during which work is carried on each day, it shall give due notice to the Engineer so that proper inspection may be provided. Any work done in the absence of the Engineer shall be subject to rejection. Proper facilities for safe access for inspection to all parts of the work shall at all times be maintained for the necessary use of the Engineer and other agents of the HCRCD, and agents of the Federal, State, or local governments at all reasonable hours for inspection by such agencies to ascertain compliance with laws and regulations.
(c) One or more inspectors may be assigned to observe the work and to act in matters of construction under this Contract. It is understood that inspectors shall have the power to issue instructions and make decisions within the limitations of the authority of the Engineer. Such inspection shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the work, to furnish proper materials, labor, equipment and tools, and perform acceptable work, and to provide adequate safety precautions in conformance with the intent of the Contract.

(d) The Engineer and its representatives and the HCRCD and its Representatives shall at all times have access to the work wherever it is in preparation or progress, and the Contractor shall provide safe and convenient facilities for such access and for inspection. If the Specifications, the Engineer's instructions, laws, ordinances, or any public authority require any material, equipment or work to be specifically tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the HCRCD, of the time fixed for inspection. Inspections by the Engineer will be made promptly and, where practicable, at the source of supply.

(e) Work performed without inspection may be required to be removed and replaced under proper inspection and the entire cost of removal and replacing, including the cost of HCRCD-furnished materials used in the work, shall be borne by the Contractor, regardless of whether or not the work exposed is found to be defective. Examination of questioned work, other than that installed without inspection, may be ordered by the Engineer and, if so ordered, the work must be uncovered by Contractor. If such work is found to be in accordance with the Contract Documents, the HCRCD will pay the cost of re-examination and replacement. If such work is found to be not in accordance with the Contract Documents, the Contractor shall pay such cost unless it can show that the defect in the work was caused by another Contractor, and in that event the HCRCD will pay such costs.

(f) The inspection of the work shall not relieve the Contractor of its obligation to fulfill the Contract as herein prescribed, or in any way alter the standard of performance provided by the Contractor, and defective work shall be made good and unusable materials may be rejected, notwithstanding that such work and materials have been previously overlooked by the Engineer and accepted or estimated for payment. If the work or any part thereof shall be found defective, Contractor shall, within ten (10) calendar days, make good such defect in a manner satisfactory to the Engineer. If the Contractor shall fail or neglect to make ordered repairs of defective work or to remove the condemned materials from the work within ten (10) calendar days after direction by the Engineer in writing, the HCRCD may make the ordered repairs, or remove the condemned materials, and deduct the cost thereof from any monies due the Contractor.

(g) The Contractor shall furnish promptly without additional charge all facilities, labor and materials reasonably needed by the Engineer for performing all inspection and tests. Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time specified by the Contractor for its inspection.

(h) Where any part of the work is being done under an encroachment permit or building permit, or is subject to Federal, State, County or HCRCD codes, laws, ordinances, rules or regulations, representatives of the government agency shall have full access to the work and shall be allowed to make any inspection or tests in accordance with such permits, codes, laws, ordinances, rules, or regulations. If advance notice of the readiness of the work for inspection by the governing agency is required, the Contractor shall furnish such notice to the appropriate agency.

(i) The Engineer may inspect the production of the material, or the manufacture of products at the source of supply. Plant inspection, however, will not be undertaken until the Engineer is assured of the cooperation and assistance of both the Contractor and the material producer. The Engineer or its authorized representative shall have free entry at all times to such parts of the plant as concerns the manufacture or production of the materials. Adequate facilities shall be furnished free of charge to make the necessary inspection. The HCRCD assumes no obligation to inspect materials at the source of supply.
(j) Forty-eight hours prior to work being accomplished, the Contractor will notify the Engineer of the proposed working hours to accomplish the work for that day. Overtime and shift work may be established as a regular procedure by the Contract and with the written permission of the Engineer. Such permission may be revoked at any time. No work other than overtime and shift work established as a regular procedure shall be done between the hours of 6 p.m. and 7 a.m., nor on Saturdays, Sundays, or legal holidays, except such work as is necessary for the proper care and protection of the work already performed or except in case of an emergency.

All costs for the overtime inspection, including those occurring as a result of overtime and shift work established as a regular procedure, shall be paid for by the Contractor. Overtime inspection shall include inspection required during holidays, Saturdays, Sundays, and any weekday between the hours of 6 p.m. and 7 a.m. Such costs will include, but will not necessarily be limited to, engineering, inspection, general supervision and other expenses which are directly chargeable to the overtime work. All such charges shall be deducted by the HCRCD from payment due the Contractor.

(k) A pre-final inspection of the Work will be made by the HCRCD and the Engineer. This inspection shall be made as soon as practical after Contractor has notified the HCRCD in writing that the Work is ready for this inspection. The pre-final inspection shall be made prior to acceptance of any portion of the work as being substantially complete and prior to filing the Notice of Completion.

A final inspection of all the work will be made by the HCRCD, Engineer, and Contractor.

B-20 Tests

The HCRCD shall witness all tests specified or required by the Technical Specifications. The responsibility for payment for these tests is also outlined in the Technical Specifications. The Engineer will require such tests as it deems necessary to determine the quality of work or compliance with Contract Documents. The Contractor shall furnish promptly without additional charge all facilities, labor, and material reasonably required for performing safe and convenient tests as may be required by the Engineer. All tests by the Engineer will be performed in such a manner as will not unnecessarily delay the work. The Contractor shall not be required to reimburse the HCRCD for tests performed by the HCRCD or Engineer. If samples of materials are submitted which fail to pass the specified tests, the Contractor shall pay for all subsequent tests.

B-21 Removal of Rejected and Unauthorized Work and Materials

(a) All work or materials which have been rejected shall be remedied, or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed for such removal, replacement, or remedial work.

(b) Any work done beyond the lines and grades shown on the plans or established by the Engineer or any extra work done without written authority will be considered as unauthorized work and will not be paid for. Upon order of the Engineer, unauthorized work shall be remedied, removed, or replaced at the Contractor's expense.

(c) Upon failure of the Contractor to comply with any order of the Engineer made under this Section, the HCRCD may cause rejected or unauthorized work to be remedied, removed or replaced, and may deduct the costs therefore from any monies due or to become due the Contractor.

(d) If following the installation of any equipment furnished hereunder, defects requiring correction by the Contractor are found, the HCRCD shall have the right to operate such unsatisfactory equipment and make reasonable use thereof until the equipment can be shut down for correction of defects without injury to the HCRCD.
**B-22 Deductions for Uncorrected Work**

If the Engineer deems it inexpedient to correct work damaged or not done in accordance with the Contract, an equitable deduction from the Contract price shall be made therefore, and such sum may be withheld by HCRCD from Contractor's payment.

**B-23 Equipment and Plants**

(a) Only equipment and plants suitable to produce the quality of work and materials required will be permitted to operate on the project.

(b) Plants will be designed and constructed in accordance with general practice for such equipment and shall be of sufficient capacity to insure the production of sufficient material to carry the work to completion within the time limit.

(c) The Contractor shall provide adequate and suitable equipment and plants to meet the above requirements, and when ordered by the Engineer, shall remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants.

(d) The Contractor shall identify each piece of its equipment, other than hand tools, by means of an identifying number plainly stenciled or stamped on the equipment at a conspicuous location, and shall furnish to the Engineer a list giving the description of each piece of equipment and its identifying number. In addition, the make, model number and empty gross weight of each unit of compacting equipment shall be plainly stamped or stenciled in a conspicuous place on the unit. The gross weight shall be either the manufacturer's rated weight or the scale weight.

(e) In the case of termination of this Contract before completion from any cause whatever, the Contractor, if notified to do so by the HCRCD, shall promptly remove any part or all of its equipment and supplies from the property of the HCRCD. If the Contractor fails to do so, the HCRCD shall have the right to remove such equipment and supplies at the expense of the Contractor.

**B-24 Character of Worker**

The Contractor shall employ only competent subcontractors or skillful workers to do the work. If any Subcontractor, or person employed by the Contractor or any Subcontractor shall fail or refuse to carry out the directions of the HCRCD or its agents or shall appear to the HCRCD or its agents to be incompetent or to act in a disorderly or improper manner, it shall be removed from the project work immediately on the requisition of the HCRCD or its agents, and such person shall not again be employed on the work. Such discharge shall not be the basis for any claim for compensation or damages against the HCRCD, or any of its officers or agents.

**B-25 Separate Contracts**

The HCRCD reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate its work with the other contractor's work.

If any part of the Contractor's work depends for proper execution or results upon the work of any other contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such
work that render it unsuitable for such proper execution and results. The Contractor's failure to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of its work, except as to defects which may develop in the other contractor's work after the execution of its work.

To insure the proper execution of its subsequent work, the Contractor shall measure work already in place and shall at once report to the Engineer any discrepancy between the executed work and the drawings.

The HCRCD may perform additional Work related to the Project by himself, or he may let other Contracts containing provisions similar to these. The Contractor will afford the other Contractors who are parties to such Contracts (or the HCRCD, if he is performing the additional Work himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of Work and shall properly connect and coordinate his Work with theirs.

If the performance of additional Work by other Contractors or the HCRCD is not noted in the Contract Documents prior to the execution of the Contract, written notice thereof shall be given to the Contractor prior to starting any such additional Work. If the Contractor believes that the performance of such additional Work by the HCRCD or others involves him in additional expense or entitles him to an extension of the Contract Time, he may make a claim therefore as provided in Part 3, Article 1, Section B-7 of this Contract.

**B-26 Materials, Services and Facilities**

(a) Unless otherwise specifically stated in the Contract Documents, the Contractor shall furnish all materials, labor, tools, equipment, water, light, power, sanitary facilities, transportation, supervision, temporary construction of any nature on all of the facilities necessary for the execution and completion of the work. Unless otherwise specified, all materials shall be new and shall be manufactured, handled, and installed in a workmanlike manner to insure completion of the work in accordance with the Contract Documents. The Contractor shall, upon request of the Engineer, furnish satisfactory evidence as to the kind and quality of materials.

(b) Where materials are to be furnished by the HCRCD, the type, size, quantity and location at which they are available will be stated in the Contract Documents.

(c) Manufacturers’ warranties, guarantees, instruction sheets and parts listed, which are furnished with certain articles or materials incorporated in the work, shall be delivered to the Engineer before acceptance of the Contract.

Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

Materials, supplies and equipment shall be in accordance with samples submitted by the Contractor and approved by the Engineer.

Materials, supplies or equipment to be incorporated into the Work shall not be purchased by the Contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

The completed work shall include all necessary permanent safety devices, such as machinery guards and similar ordinary safety items required by the State and Federal (OSHA) industrial safety authorities and applicable local and national codes. Further, any features of the work subject to such safety regulations shall be fabricated, furnished, and installed in compliance with these requirements. Prior to performing Work specified herein, the Contractor shall request an inspection by a State Industrial Safety representative for the purpose of determining that the facilities provided are in compliance with the
State and Federal safety requirements. Any facilities which are deemed necessary by official response following the above safety inspection shall be added or corrected as required as a part of the Contract work. However, no payment will be made to the Contractor for such changes or additions to equipment furnished under this Contract since it is a requirement of these Specifications that such equipment be manufactured or fabricated in such a manner as to be in conformance with all Federal, State, and local safety requirements. The Contractor shall notify all manufacturers, equipment suppliers, and subcontractors of the provisions of this article.

In approving equipment for installation in the project, the HCRCD and Engineer assume no responsibility for injury or claims resulting from failure of the equipment to comply with applicable National, State, and local safety codes or requirements, or the safety requirements of a recognized agency, or failure due to faulty design concepts, or defective workmanship and materials.

All materials incorporated into the job shall be new, especially purchased for the project unless otherwise specified or agreed in writing. Unless otherwise noted, any equipment offered shall be current modifications which have been in successful regular operation under comparable conditions for a period sufficient to determine the reliability of the product. This time requirement, however, does not apply to minor details nor to thoroughly demonstrated improvements in design or in materials of construction.

Whenever the Contractor shall furnish materials or manufactured articles or shall do work for which no detailed specifications are set forth, the materials or manufactured articles shall be of the best grade in quality and workmanship obtainable in the market from firms of established good reputation, or, if not ordinarily carried in stock, shall conform to the usual standards of first-class materials or articles of the kind required with due consideration of the use to which they are to be put. In general, the work performed shall be in full conformity and harmony with the intent to secure the best standard of construction and equipment of the work as a whole or in part.

B-27 Storage of Materials

Materials shall be so stored as to ensure the preservation of their quality and fitness for the Work. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground, and they shall be placed under cover. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without the written permission of the owner or lessee.

Because of Permit constraints on use of areas directly adjacent to the constructing project, contractor shall provide off-site areas for storing equipment and material if he deems such areas as being inadequate to execute the work.

Electrical equipment, devices, and motors shall be placed in dry and warm storage as approved by the Engineer.

All equipment and materials which are not to be painted (such as aluminum and stainless steel) and all factory finished or coated equipment and materials which are not to be painted, that are installed prior to completion of adjacent work, shall be completely covered and protected.

Articles or materials to be incorporated in the work shall be stored in such a manner as to insure the preservation of their quality and fitness for the work, and to facilitate inspection.

B-28 Trade Names and Alternatives

For convenience in designation in the Specifications and plans, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of a manufacturer and its
catalog information. The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:

(1) The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor and it shall furnish all information necessary as required by the Engineer. The Engineer shall be the sole judge as to the quality and suitability of alternative articles or materials and its decision shall be final.

(2) Whenever the Specifications and Plans permit the substitution of a similar or equivalent material or article, no tests or action relating to the approval of such substitute material or article will be made until the request for substitution is made in writing by the Contractor accompanied by complete data as to the equality of the material or article proposed. Such request by the Contractor must be made within thirty-five (35) days after award of Contract.

B-29 Certificate of Compliance

(a) A Certificate of Compliance shall be furnished prior to the use of any materials on the project, unless otherwise noted in the technical specifications. In addition, when so authorized in the Specifications, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The Certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the Contract. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the Certificate.

(b) All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the Contract Documents and any such material not conforming to such requirements will be subject to rejection whether in place or not.

(c) The HCRCD reserves the right to refuse to permit the use of material on the basis of a Certificate of Compliance.

(d) The form of the Certificate of Compliance and its disposition shall be as directed by the Engineer.

B-30 Assignment

The Contractor shall not assign the Contract or sublet it as a whole or in part without the prior written consent of the HCRCD, nor shall the Contractor assign any monies due, or to become due to it hereafter, without the prior written consent of the HCRCD.

B-31 Use of Completed Portions, Right to Operate Unsatisfactory Equipment or Facilities

(a) The HCRCD may, at any time, and from time to time, during the performance of the work, enter the work site for the purpose of installing any necessary work by the HCRCD labor or other contracts, and for any other purpose in connection with the installation of facilities. In doing so, the HCRCD shall endeavor not to interfere with the Contractor and the Contractor shall not interfere with other work being done by or on behalf of the HCRCD.
(b) If, prior to completion and final acceptance of all the work, the HCRCD takes possession of any structure or facility (whether completed or otherwise) comprising a portion of the work with the intent to retain possession thereof (as distinguished from temporary possession contemplating the return to the Contractor), then, while the HCRCD is in possession of the same, the Contractor shall be relieved of liability for loss or damage to such structure other than that resulting from the Contractor's fault or negligence. Such taking of possession by the HCRCD's shall not relieve the Contractor from any provisions of this Contract respecting such structure, other than to the extent specified in the preceding sentence, nor constitute a final acceptance of such structure or facility.

(c) If, following installation of any equipment or facilities furnished by the Contractor, defects requiring correction by the Contractor are found, the HCRCD shall have the right to operate such unsatisfactory equipment or facilities and make reasonable use thereof until the equipment or facilities can be shut down for correction of defects without injury to the HCRCD.

**B-32 Lands for Work, Right-of-Way Construction Roads**

(a) The HCRCD will provide the lands, easements, rights-of-way, and/or encroachment permits necessary or other rights to enter and work on lands necessary for the performance of the work, however the Contractor will be responsible for obtaining a Caltrans encroachment permit and County encroachment permit. Other permits and licenses are addressed by sections B-13 and B-49. Should the Contractor find it advantageous to use any additional land for any purpose whatever, the Contractor shall provide for the use of such land at its expense. The Engineer shall be furnished with a copy of written agreements or otherwise be notified in writing of additional working space which is acquired. Nothing herein contained and nothing marked on the plans shall be interpreted as giving the Contractor exclusive occupancy of the territory provided by the HCRCD. When two or more contracts are being executed at one time on the same or adjacent land in such a manner that work on one contract may interfere with that on another, the Engineer shall decide which contractor shall cease work, and which shall continue, or whether the work on both contracts shall progress at the same time and in what manner, and the decision of the Engineer shall be final and binding. When the territory of one contract is the necessary or convenient means of access for the performance of another contract, such privilege of access or any other reasonable privilege may be granted by the Engineer to the contractor so desiring, to the extent, amount, in the manner, and at the time permitted. No such decision as to the method or time of conducting the work or the use of territory shall be the basis of any claim for delay or damage.

(b) Lands, easements or rights-of-way to be furnished by the HCRCD for construction operations will be specifically shown on the Plans.

(c) The Contractor shall maintain all roads necessary to reach the various parts of the work and for the transportation thereto of construction material and personnel. The cost of maintaining such roads shall be borne by the Contractor.

(d) Certain areas of access are limited by permits and require mats or matting for their use. Such mats may be of wood, metal or combination of appropriate geotechnical fabric with gravel overlay. However, at project conclusion all mats must be removed and the surface restored to its original condition. The rocked construction entrances shall remain in place unless noted otherwise on the plans.

**B-33 HCRCD’s Right to Audit and Preservation of Records**

(a) The Contractor shall maintain books, records and accounts of all costs in accordance with generally accepted accounting principles and practices. The HCRCD, the Bureau of State Audits, Comptroller General of the United States, and their authorized representatives shall have the right to review and copy any records and supporting documentation pertaining to the performance of this agreement and to interview staff related to the performance of this agreement. Furthermore, the HCRCD
or its designated representatives shall have the right to audit the books, records and accounts of the Contractor under any of the following conditions:

1. The Contract is terminated for any reason in accordance with the provisions of the Contract Documents in order to arrive at equitable termination costs;

2. In the event of a disagreement between the Contractor and the HCRCD over the amount due the Contractor under the terms of the Contract;

3. To check or substantiate any amounts invoiced or paid which are required to reflect the costs of the Contractor, or the Contractor’s efficiency or effectiveness under this Contract or in connection with extras, changes, claims, additions, backcharges, or others, as may be provided for in this contract; and/or

4. If it becomes necessary to determine the HCRCD’s rights and the Contractor’s obligations under the Contract or to ascertain facts relative to any claim against the Contractor which may result in a charge against the HCRCD;

5. To determine any difference in cost occasioned by a permissible substitution;

6. For any other reason in the HCRCD's sole judgment.

(b) If any of the conditions stated in paragraph B-33(a) are satisfied, Contractor shall provide the HCRCD (or its representatives), unlimited, reasonable access during working hours to the Contractor's books and records under the conditions stated above. The HCRCD's audit rights shall be liberally construed in the HCRCD's favor.

(c) The Contractor, from the effective date of final payment or termination hereunder, shall preserve and make available to the HCRCD for a period of three (3) years thereafter, at all reasonable times at the office of the Contractor (but without any charge to the HCRCD), all its books, records, documents, photographs, micro-photographs, and other evidence bearing on the costs and expenses of the Contractor under this Contract and relating to the work hereunder.

(d) The HCRCD will make all payments required of it under this Contract subject to audit, under circumstances stated above, which audit may be performed at the HCRCD's option, either during the Contract time period or during the record retention time period. Regardless of authorization, approval or acceptance, signatures or letters which are given by the HCRCD and are part of the HCRCD's control systems or are requested by the Contractor, the payments made under this Contract shall not constitute a waiver or agreement by the HCRCD that it accepts as correct the billings, invoices or other charges on which the payments are based. If the HCRCD's audit produces a claim against the Contractor, the HCRCD may pursue all its legal remedies even though it has made all or part of the payments required by this Contract.

(e) If any audit by the HCRCD or its representative discloses an underpayment by the HCRCD pursuant to the terms of the Contract Documents, the HCRCD shall have the duty to pay any amount found by the audit to be owed to the Contractor. If such audit discloses an overpayment, the Contractor shall have the obligation to reimburse the HCRCD for the amount of the overpayment. The HCRCD's right to claim reimbursement from the Contractor of any overpayment shall not be terminated or waived until three years after the completion of the HCRCD's audit or upon the termination of audit rights under subparagraph B-33(f), whichever date is later. The obligation of the Contractor to make reimbursements hereunder shall not terminate except as provided by law.

(f) The HCRCD's right to audit and the preservation of records shall terminate at the end of three (3) years after the date final payment is made or termination of the Contract. The Contractor shall include this "Right to Audit and Preservation of Records" clause in all subcontracts issued by it shall require the same to be inserted by all lower tier Subcontractors in their subcontracts, for any portion of the
work. Should Contractor fail to include this clause in any such contract or lower tier contract, or otherwise fail to insure the HCRCD's rights hereunder, Contractor shall be liable to the HCRCD for all costs, expenses and attorney's fees which the HCRCD may have to incur obtaining or attempting to obtain an audit or inspection of or the restoration of records which otherwise have been available to the HCRCD from said persons under this clause. Such audit may be conducted by the HCRCD or its authorized representative.
ARTICLE III. PROGRESS AND COMPLETION OF WORK

B-34  Progress Schedule

The Contractor shall submit to the HCRCD such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data, where applicable, as are required by the Contract Documents for the Work to be performed.

Prior to the first partial payment estimate, the Contractor shall submit construction progress schedules showing the order in which it proposes to carry on the Work, including dates at which it will start the various parts of the WORK, estimated date of completion of each part and as applicable:

- The dates at which special detail drawings will be required; and
- Respective dates for submission of Shop Drawings, the beginning of manufacture, the testing and the installation of materials, supplies, and equipment.
- The Contractor shall also submit a schedule of payments that it anticipates it will earn during the course of the Work.

The progress schedules shall be submitted regularly and shall cover a time period satisfactory to the Engineer. The Contractor shall also forward to the Engineer, with the request for progress payment each month, a summary report of the progress of the various parts of the Work under the Contract in the shops and in the field, stating the existing status, rate of progress, estimated time of completion, and cause of delay, if any. If the work is behind the submitted schedule, the Contractor shall submit in writing a plan acceptable to the HCRCD and Engineer for bringing the Work up to schedule.

B-35  Commencement and Progress of the Work and Time of Completion

Prior to the start of construction, the HCRCD will conduct a preconstruction conference. At the conference, the HCRCD will review the planned development with the Engineer, Contractor, and other interested parties. Items to be reviewed include materials, equipment, rights-of-way, schedules and all arrangements for prosecuting the Work in accordance with the various permits. Funding for this agreement carries with it the requirement for a Labor Compliance Program to assure that the prevailing wage provisions of the Labor Code are being met. The pre-construction conference will also include an overview of fair labor requirements and distribution of documents.

The Contractor shall begin work after receiving a Notice to Proceed and shall diligently prosecute the work to completion as described in the benchmark schedule in the plans. Engineer shall have the right to specify the locations where Contractor shall start and proceed with the work.

It is the interest of the HCRCD to issue to Notice to Proceed by July 15, 2019.

B-36  Suspension of Work

(a) The Engineer may at any time, by notice in writing to the Contractor, suspend any part of the work for such period of time as may be necessary to prevent improper execution of the work on the project by the Contractor, its Subcontractors or agents, and the Contractor shall have no claim for damages or additional compensation on account of any such suspension.
(b) The HCRCD may at any time suspend any part or all of the work upon ten (10) days written notice to the Contractor, who shall thereupon discontinue all work suspended except for all operations to prevent loss or damage to work already executed as may be directed by the Engineer. In the event a part of the work is suspended, the Contractor, if the suspension is not through its fault or the fault of its Subcontractors or agents, shall be paid on the same basis as Extra Work for costs of work performed in accordance with such orders of the Engineer during such suspension, provided that this shall not include any cost pertaining to work not suspended by said notice. Work shall be resumed by the Contractor after such suspension on written notice from the HCRCD. In the event of suspension of the entire work by the HCRCD, the Contractor, if the suspension is not through fault of the Contractor or the fault of its Subcontractors or agents, shall be paid the sum of $0 for each calendar day during which the entire work shall have been suspended. Said sum is hereby mutually agreed upon as fixed and liquidated damages in full settlement of all costs and expenses, losses and damages resulting to the Contractor from such suspension. Work shall be resumed by the Contractor after such suspension on written notice from the HCRCD.

(c) In the event of any suspension of the work in whole or in part under subsection (b) above, the Contractor shall be entitled to an extension of time wherein to complete the work to the extent of the delay caused the Contractor thereby.

(d) In the event the entire work shall be suspended by order of the HCRCD, as hereinabove provided, and shall remain so suspended for a period of sixty (60) consecutive days, through no fault of the Contractor, and notice to resume the work shall not have been served on the Contractor as hereinabove provided, Contractor may, at its option, by written notice to the HCRCD, terminate the Contract in the same manner as if the termination had been initiated by the HCRCD, and the HCRCD shall have no claim for damages because of such termination of the Contract.

(e) If, through no act or fault of the Contractor, the Work is suspended for a period of more than ninety (90) days by the HCRCD or under an order of Court or other public authority, or the Engineer fails to act on any request for payment within one-hundred and twenty (120) days after it is submitted, or the HCRCD fails to pay the Contractor substantially the sum approved by the Engineer or any final award by arbitration or litigation within one-hundred and twenty (120) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a written notice to the HCRCD and the Engineer, terminate the Contract and recover from the HCRCD payment for all Work executed and all expenses sustained.

In addition and in lieu of terminating the Contract, if the Engineer has failed to act on a request for payment or if the HCRCD has failed to make any payment as aforesaid, the Contractor may upon ten (10) days written notice to the HCRCD and the Engineer stop the Work until he has been paid all amounts then due, in which event and upon resumption of the Work, Change Orders shall be issued for adjusting the Contract Price or extending the Contract Time or both to compensate for the costs and delays attributable to the stoppage of the Work.
If the performance of all or any portion of the Work is suspended, delayed, or interrupted as a result of a failure of the HCRCD or Engineer to act within the time specified in the Contract Documents, or if no time is specified, within a reasonable time, an adjustment in the Contract Price or an extension of the Contract Time, or both, shall be made by Change Order to compensate the Contractor for the costs and delays necessarily caused by the failure of the HCRCD or Engineer.

If the Contractor intends to file a claim for additional compensation for a delay caused by the HCRCD or Engineer at a particular time, he shall file a Notice of Claim with the HCRCD within 7 days of the beginning of the occurrence. The Notice of Claim shall be in duplicate, in writing, and shall state the circumstances and the reasons for the Claim, but need not state the amount. No Claim for additional compensation will be considered unless a Notice of Claim has been filed with the HCRCD within the time and in the manner stated above. Contractor's failure to file a claim shall constitute a waiver.

**B-37 Termination For Default - Damages For Delay - Timely Extension**

(a) The Contractor shall at all times employ such force, plant, materials, and tools as will be sufficient, in the opinion of the Engineer, to prosecute the work at not less than the rates fixed under the terms of the Contract and to complete the work or any part thereof within the time limits fixed therein. If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will ensure the completion within the time specified in the Contract, or any extension thereof, or fails to complete said work within such time, the HCRCD may, after giving ten (10) days written notice to the Contractor, terminate its right to proceed with the work or such part of the work as to which there has been delay.

(b) The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:

(1) The delay in the completion of the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to Acts of God, acts of the public enemy, acts of the HCRCD, acts of another contractor in the performance of a Contract with the HCRCD, fires, floods, excluding site flooding due to groundwater, epidemics, quarantine restrictions, unusually severe weather, as determined by the Engineer; and

(2) The Contractor shall, within 48 hours of the start of the occurrence, give notice to the HCRCD of the cause of the potential delay and an estimate of the possible time extension involved. The Contractor, within seven (7) days from the beginning of any such delay (unless the Engineer grants further period of time before the date of final payment under the Contract), notifies the Engineer in writing of the causes of delay and requests an extension of time. The Engineer shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in its judgment, the findings of fact justify such an extension, and its findings of fact shall be final and conclusive on the parties.

(c) A request for an extension of time, or the granting of an extension of time, shall not constitute a basis for any claim against the HCRCD for additional compensation or damages unless caused by the HCRCD or another contractor employed by the HCRCD.

(d) If the Contractor should be adjudged bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed for the Contractor on account of its insolvency and not be discharged within ten (10) days after its appointment, or if the Contractor should fail to make prompt payments to subcontractors or suppliers, or should it persistently disregard laws, ordinances, or the instructions of the Engineer, or otherwise commit a substantial violation of any provisions of the Contract, the HCRCD may, after giving ten (10) days written notice to the Contractor, terminate the Contract and the Contractor's right to proceed with the work.
(e) No extension of time will be considered for time lost due to weather conditions normal to the area. Unusual weather conditions, if determined by the Engineer to be of a severity that could not be predicted, may be considered as cause for an extension of Contract completion time.

(f) Delays in delivery of equipment or material purchased by the Contractor or his subcontractors shall not be considered as a just cause for delay. The Contractor shall be fully responsible for the timely ordering, scheduling, expediting delivery, and installation of all equipment and materials.

(g) The rights and remedies of the HCRCD provided in this section are in addition to any of the rights and remedies provided by law or under this Contract.

(h) In addition to the HCRCD’s rights under this section, if at any time before completion of the work under the Contract, it shall be determined by the HCRCD that reasons beyond the control of the parties hereto render it impossible or against the interests of the HCRCD to complete the work, or if the work shall be stopped by an injunction of a court of competent jurisdiction or by order of any competent authority, the HCRCD may, upon ten (10) days written notice to the Contractor, discontinue the work and terminate the Contract. Upon service of such notice of termination, the Contractor shall discontinue the work in such manner, sequence, and at such times as the Engineer may direct. The Contractor shall have no claim for damages for such discontinuance or termination, nor any claim for anticipated profits on the work thus dispensed with, nor any other claim except for the work actually performed up to the time of discontinuance, including any extra work ordered by the Engineer to be done, nor for any claim for liquidated damages in accordance with the provisions of Section B-39.

**B-38 Rights of HCRCD Upon Termination**

(a) In the event the right of the Contractor to proceed with the work, or any portion thereof, has been terminated because of the fault of the Contractor and the Contractor has been given ten (10) days notice to cure such fault and has not done so, the HCRCD may take over the work and prosecute the same to completion by contract or any other method the HCRCD deems expedient, and may take possession of and utilize in completing the work such materials, appliances, equipment and plant as may be on the site of the work and necessary therefore. Whether or not the Contractor’s right to proceed with the work is terminated, it and its sureties shall be liable for all damages including costs of managerial and administrative services, engineering, legal and other consultant fees, sustained or incurred by the HCRCD in enforcing the provisions of Section B-37 and in completing or causing to complete the Contract work.

Upon termination the Contractor shall not be entitled to receive any further payment until the work is finished. If upon completion of the work the total cost to the HCRCD, including engineering, legal and other consultant fees, costs of managerial and administrative services, construction costs, and liquidated damages shall be less than the amount which would have been paid if the work had been completed by the Contractor in accordance with the terms of the Contract, then the difference shall be paid to the Contractor in the same manner as the final payment under the Contract. If the total cost incurred by the HCRCD on account of termination of the Contract and subsequent completion of the work by the HCRCD by whatever method the HCRCD may deem expedient shall exceed said amount which the Contractor would otherwise have been paid, the Contractor and its sureties shall be liable to the HCRCD for the full amount of such excess expense.

(b) The rights and remedies of the HCRCD provided in this section are in addition to any of the rights and remedies provided by the law or under this Contract.
B-39  Failure to Complete the Work in the Time Agreed Upon - Liquidated Damages

(a)  Liquidated Damages - It is agreed by the parties to the Contract that time is of the essence; and that if all the work is not completed before or upon the expiration of the time limit as set in the Bid, Contract and Progress Schedule, or within any time extensions that may have been granted, damage will be sustained by the HCRCD; and that it may be impracticable to determine the actual amount of damage by reason of such delay, and it is, therefore, agreed that the Contractor shall pay to the HCRCD as damages the amount of $1,500.00 per day for each and every day's delay in finishing the work by October 15, 2019. The parties expressly agree that this liquidated damage clause is reasonable under the circumstances existing at the time the Contract was made. The HCRCD shall have the right to deduct the amount of liquidated damages from any money due or to become due the Contractor.

(b)  In addition, the HCRCD shall have the right to charge to the Contractor and to deduct from the final or progress payments for the work the actual cost to the HCRCD of legal, engineering, inspection, superintendence, and other expenses, which are directly chargeable to the Contract and which accrue during the period of such delay, except that the cost of final inspection and preparation of the final estimate shall not be included in the charges.

(c)  Exclusions - Notwithstanding the provisions of subsection (a), the Contractor shall not be liable for liquidated damages or delays caused by the removal or relocation of utilities when such removal or relocation is the responsibility of the HCRCD or the owner of the utility under Government Code Section 4215.

B-40  Clean-up

During the progress of the work, the Contractor shall maintain the site and related structures and equipment in a clean, orderly condition and free from unsightly accumulation of rubbish. Upon completion of work and before the final estimate is submitted, the Contractor shall at its own cost and expense remove from the vicinity of the work all plants, buildings, rubbish, unused work materials, concrete forms, and temporary bridging and other like materials, belonging to it or used under its direction during the construction, and in the event of its failure to do so, the same may be removed by the HCRCD after ten (10) calendar days notice to the Contractor, such removal to be at the expense of the Contractor. Where the construction has crossed yards or driveways, they shall be restored by the Contractor to the complete satisfaction of the Engineer, at the Contractor's expense.
ARTICLE IV. LEGAL RELATIONS AND RESPONSIBILITY

B-41 Compliance with Laws - Permits, Regulations, Taxes

Contractor is an independent contractor and shall at its sole cost and expense comply with all laws, rules, ordinances and regulations of all governing bodies having jurisdiction over the work, obtain all necessary permits and licenses therefore, pay all manufacturers' taxes, sales taxes, use taxes, processing taxes, and all Federal and state taxes, insurance and contributions for social security and unemployment which are measured by wages, salaries or any remuneration paid to Contractor's employees, whether levied under existing or subsequently enacted laws, rules or regulations. Contractor shall also pay all property tax assessments on materials or equipment used until acceptance by the HCRCD. If any discrepancy or inconsistency is discovered in the Plans or Specifications, or in this Contract in relation to any such law, rule, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the Engineer in writing. It shall also protect and indemnify the HCRCD, the Engineer, and all of the HCRCD's officers, agents, and servants against any claim or liability arising from or based upon the violation of any such law, rule, ordinance, regulation, order or decree, whether by the Contractor itself or by its employees. Particular attention is called to the following:

1. Without limitation, materials furnished and performance by Contractor hereunder shall comply with Safety Orders of the Division of Industrial Safety, State of California, Federal Safety regulations of the Bureau of Labor, Department of Labor; and any other applicable Federal regulations.

2. The Contractor, upon request, shall furnish evidence satisfactory to the HCRCD and Engineer that any or all of the foregoing obligations have been or are being fulfilled. The Contractor warrants to the HCRCD that it is licensed by all applicable governmental bodies to perform this Contract and will remain so licensed throughout the progress of the work, and that it has, and will have, throughout the progress of the work, the necessary experience, skill and financial resources to enable it to perform this Contract.

3. Project permits will be provided to the awarded contractor. The permit conditions have been included in the appendices of these specifications.

B-42 Prevailing Wage

(a) This is a Public Works Project funded with CA State funds (Proposition 84, 1E, 13, and 1). Therefore CA State prevailing wage rates are required on this project. See Federal Provisions for federal prevailing wage requirements.

(b) In accordance with the provisions of section 1720 et seq. of the Labor Code, the Division of Labor Standards and Research has determined the general prevailing rates or wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in section 1773.8. Prior to each pay period, the Contractor shall review the General Prevailing Wage Rates applicable to this project and verify that the correct wage rates are being paid. The most current wage rates are available from the California Department of Industrial Relations’ Internet web site at http://www.dir.ca.gov/DLSR/PWD. Contractor will be required to comply with any changes in these wage rates as they are updated by the State government during the course of the job at no cost to the Owner.

(c) It is mandatory upon the Contractor herein and upon any Subcontractor to pay not less than the said specified rates to all laborers, workers and mechanics employed by them in the execution of the Agreement pursuant to CA Labor Code 1774.
Attention is directed to the provisions in section 1777.5 and sections 1777.6 of the Labor Code concerning the requirement to employ apprentices by the Contractor or any Subcontractor under it.

The Contractor shall comply with and shall cause his subcontractors to comply with all laws and regulations governing the contractor’s and subcontractor’s performance on this project including, but not limited to: anti-discrimination laws, workers’ compensation laws, and prevailing wage laws as set forth in CA Labor Code, Sections 1720-1861 et seq. and licensing laws, as well as Federal Labor Standards set forth in the Davis-Bacon Act (40 USC 276(a-a5), the Copeland “Anti-Kickback” Act (40 USC 276©; and the Contract Work Hours and Safety Standards Act (CWHSSA) (40 USC 327-333). The contractor is required to include the prevailing wage language in all subcontracts pursuant to CA Labor Code 1775(E)(b)(1). The Contractor shall post, at appropriate conspicuous points on the site of the Project, a schedule showing all the determined general prevailing wage rates.

The Contractor agrees to comply with Labor Code Section 1775 (Payment of the Prevailing Wage Rates) and Labor Code 1776 (keeping accurate records) and Labor Code 1777.5, placing responsibility for compliance with the statutory requirements for all apprenticeable occupations on the prime contractor. The Contractor shall comply with the requirements imposed by the California Labor Code Sections 1720 through 1861 regarding public works projects and prevailing wage laws and sections 16000-16800 of the CA Code of Regulations.

Each worker needed to execute the work must be paid travel and subsistence payments as defined in the applicable collective bargaining agreements filed in accordance with Labor Code Section 1773.8.

Holiday and overtime work when permitted by law shall be paid for at a rate of at least one and one-half times the above specified rate of per diem wages, unless otherwise specified.

The Contractor shall forfeit as penalty to the HCRCD the sum of fifty dollars ($50) for each calendar day or portion thereof for each worker (whether employed by the Contractor or Subcontractor) for violating the following labor codes; CA Labor Code 1813 for overtime, 1775 for underpayment of the prevailing wage, and 1776 for inaccurate or incomplete payroll records.

Per Labor Code Section 1776, the Contractor and subcontractors shall maintain and furnish to the HCRCD’s Labor Compliance Officer at designated times, a certified copy of each weekly payroll containing a statement of compliance signed under the penalty of perjury. The HCRCD will audit payroll records to verify compliance and will withhold contract payments when payroll records are delinquent or inadequate. Withheld contract payments shall be equal to the amount of underpayment and applicable penalties when, after investigation, it is established that underpayment has occurred.

The HCRCD will not recognize any claims for additional compensation because of the payment of the wages set forth in the Contract Documents. The possibility of wage increases during the course of the job is one of the elements to be considered by the Contractor in determining its proposal, and will not under any circumstances be considered as the basis of a claim against the HCRCD or the Engineer.

The Contractor shall at all times keep posted at the jobsite current wage rates in effect for this Work in addition to other required employee notifications or postings.

**B-43 Labor Discrimination and Labor Compliance**

Attention is directed to Section 1735 of the Labor Code, which reads as follows:

No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital
status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every Contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter.

(a) Pursuant to Labor Code section 1771.4, the Contract for this Project, if awarded on or after January 15, 2015, is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

(b) On each job site that is subject to compliance monitoring and enforcement by the Department of Industrial Relations under this subchapter, the prime contractor shall post a Notice containing the following language:

(c) “This public works project is subject to monitoring and investigative activities by the Compliance Monitoring Unit (CMU) of the Division of Labor Standards Enforcement, Department of Industrial Relations, State of California. This Notice is intended to provide information to all workers employed in the execution of the contract for public work and to all contractors and other persons having access to the job site to enable the CMU to ensure compliance with and enforcement of prevailing wage laws on public works projects.

(d) “The prevailing wage laws require that all workers be paid at least the minimum hourly wage as determined by the Director of Industrial Relations for the specific classification (or type of work) performed by workers on the project. These rates are listed on a separate job site posting of minimum prevailing rates required to be maintained by the public entity which awarded the public works contract. Complaints concerning nonpayment of the required minimum wage rates to workers on this project may be filed with the CMU at any office of the Division of Labor Standards Enforcement (DLSE).

(e) Local Office Telephone Number: 1-844-522-6734

(f) “Complaints should be filed in writing immediately upon discovery of any violations of the prevailing wage laws due to the short period of time following the completion of the project that the CMU may take legal action against those responsible.

(g) “Complaints should contain details about the violations alleged (for example, wrong rate paid, not all hours paid, overtime rate not paid for hours worked in excess of 8 per day or 40 per week, etc) as well as the name of the employer, the public entity which awarded the public works contract, and the location and name of the project.

(h) “For general information concerning the prevailing wage laws and how to file a complaint concerning any violation of these prevailing wage laws, you may contact any DLSE office. Complaint forms are also available at the Department of Industrial Relations website found at www.dir.ca.gov/dlse/PublicWorks.html.”

B-44 Eight-Hour Day Limitation

(a) In accordance with the provisions of the Labor Code, and in particular, Sections 1810 to 1815 thereof, inclusive, eight hours labor shall constitute a day's work, and no worker, in the employ of said Contractor, or any Subcontractor, doing or contracting to do any part of the work contemplated by this Contract, shall be required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of those provisions; provided that subject to Labor Code Section 1815, a worker may perform work in excess of either eight (8) hours per day or forty (40) hours during any one week upon compensation for all hours worked in excess of eight (8) hours per day or forty (40) hours during any one week at not less than the rate of compensation required by Labor Code Section 1815.
(b) The Contractor and each Subcontractor shall also keep an accurate record showing the names, addresses, social security numbers, work classifications, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and by the Subcontractor in connection with the work specified herein, which record shall be open at all reasonable hours to the inspection of the HCRCD, State and Federal officers and agents; and it is hereby further agreed that, except as provided in (a) above, the Contractor shall forfeit as a penalty to the HCRCD the sum of fifty dollars ($50) for each worker employed in the performance of this Contract by it or by any Subcontractor under it for each calendar day during which such worker is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of Sections 1810 through 1815.

B-45 Compliance with State Requirements for Employment of Apprentices

The Contractor's attention is directed to Section 1777.5 through 1777.2 of the Labor Code; provisions of those Sections pertaining to employment of registered apprentices are hereby incorporated by reference into these Specifications. As applicable, the Contractor or any Subcontractor employed by it in the performance of the Contract work shall take such actions as necessary to comply with the provisions of Section 1777.5.

B-46 Underground Utilities

In accordance with Government Code Section 4215, the Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating existing main or trunkline utility facilities not indicated in the Contract Plans and Specifications with reasonable accuracy, and for the equipment on the project necessarily idled during such work; provided that the Contractor shall first notify the Engineer before commencing work on locating, repairing damage to, removing or relocating such utilities.

B-47 Water Pollution

The Contractor shall exercise every reasonable precaution to protect streams, lakes, reservoirs, and canals from pollution with fuels, oils, bitumens, calcium chloride, and other harmful materials and shall conduct and schedule its operations so as to avoid or minimize muddying and silting of said streams, lakes, reservoirs, and canals. Care shall be exercised to preserve vegetation beyond the limits of construction disturbance. The Contractor shall comply with Section 5650 of the California Fish and Wildlife Code and all other applicable statutes and regulations relating to the prevention and abatement of water pollution.

B-48 Payment of Taxes

The Contract prices paid for the work shall include full compensation for all taxes which the Contractor is required to pay, whether imposed by Federal, State, or local governments.

B-49 Permits and Licenses

Except as otherwise provided in this Contract, the Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the lawful prosecution of the work.
B-50  Patents

The Contractor shall pay all applicable royalties and license fees and assume all costs arising from the use of patented materials, equipment and devices. The Contractor shall defend all suits or claims for infringement of any patent rights and save the HCRCD and Engineer and their duly authorized representatives harmless from loss on account thereof, except that the HCRCD shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified; however if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Engineer.

B-51  Public Convenience

(a) This section defines the Contractor's responsibility with regard to convenience of the public and public traffic in connection with its operations.

(b) The Contractor shall so conduct its operations as to offer the least possible obstruction and inconvenience to the public and it shall have under construction no greater length or amount of work than it can prosecute properly with due regard to the rights of the public.

(c) Unless otherwise provided in the Contract Documents, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible.

(d) Spillage resulting from hauling operations along or across any publicly traveled way shall be removed immediately by the Contractor at its expense.

(e) Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

(f) Convenient access to driveways, houses and buildings along the line of the work shall be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition. When the abutting property owner's access across the right-of-way line is to be eliminated, or to be replaced under the Contract by other access facilities, the existing access shall not be closed until the replacement access facilities are usable.

(g) Water shall be supplied if ordered by the Engineer for the alleviation or prevention of dust nuisance as provided in the Contract Documents.

(h) In order to expedite the passage of public traffic through or around the work and where ordered by the Engineer, the Contractor shall install signs, lights, flares, barricades, and other facilities for the sole convenience and direction of public traffic. Also, where directed by the Engineer, the Contractor shall provide and station competent flagpersons whose sole duties shall consist of directing the movement of public traffic through or around the work. The cost of furnishing and installing such signs, lights, flares, barricades, and other facilities, and the cost of providing and stationing such flagpersons, all for the convenience and direction of public traffic, will be considered as included in the Contract price and no additional compensation will be allowed.

(i) Flagpersons and guards, while assigned to traffic control, shall perform their duties and shall be provided with the necessary equipment in accordance with the current "Instructions to Flagmen" of the California Department of Transportation. The equipment shall be furnished and kept clean and in good repair by the Contractor at its expense.
**B-52 Safety**

(a) **General** - The Contractor shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to all applicable Federal, State, and local laws, ordinances, and codes, and to the rules and regulations established by the California Division of Industrial Safety, and to other rules of law applicable to the work.

(b) The services of the Engineer in conducting construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's work methods, equipment, bracing or scaffolding or safety measures, in, on, or near the construction site, and shall not be construed as supervision of the actual construction nor make the Engineer or the HCRCD responsible for providing a safe place for the performance of work by the Contractor, subcontractors, or suppliers; or for access, visits, use work, travel or occupancy by any person.

(c) The Contractor shall carefully instruct all personnel working in potentially hazardous work areas as to the potential dangers and shall provide such necessary safety equipment and instruction as is necessary to prevent injury and damage to property. The Contractor shall appoint for the duration of this Contract, a qualified supervisor employee to develop and/or supervise the Contractor's job safety program that will effectively implement the safety provisions of the above agencies.

The Contractor, as a part of his safety program, shall maintain at its office or other well-known place at the job site, safety equipment applicable to the Work as prescribed by the aforementioned authorities, all articles necessary for giving first aid to the injured, and shall establish the procedure for the immediate removal to a hospital or a doctor's care of persons (including employees) who may be injured on the job site.

If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the Engineer and the HCRCD and to all authorities the Contractor is required to report to. In addition, the Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the Work whether on, or adjacent to, the site, giving full details and statements of witnesses.

If any claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.

(c) All work and materials shall be in strict accordance with all applicable State, Federal and local laws, rules, regulations, and codes.

(d) Nothing in this Contract is to be construed to permit work not conforming to governing law. When Contract Documents differ from governing law, the Contractor shall furnish and install the higher standards called for without extra charge. All equipment furnished shall be grounded and provided with guards and protection as required by safety codes. Where vapor-tight or explosion-proof electrical installation is required by law, this shall be provided.

(e) **Shoring and Trench Safety Plan** - Attention is directed to Section 832 of the Civil Code of the State of California relating to lateral and subjacent support, and the Contractor shall comply with this law. This is a requirement of the Contractor and by submitting to the HCRCD or their representative, does not relieve the contractor of their responsibility for all aspects of site safety.

(f) **Trenching and Worker Protection** - In accordance with Section 6705 of the State Labor Code, the Contractor shall submit to the HCRCD specific plans to show details of provisions for worker protection from caving ground. Not less than thirty (30) days before beginning excavation for any trench or trenches five (5) feet or more in depth required under this Contract, the Contractor shall furnish to the Engineer working drawings of its trench safety plan. The trench safety plan working drawings shall be
detailed plans showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground. If such plan varies from the shoring system standards established by the Construction Safety Orders of the California Department of Industrial Relations or the Federal Safety and Health Regulations for Construction of the Occupational Safety and Health Administration, Department of Labor, the plan shall be prepared by a registered civil or structural engineer. In no event shall the Contractor use a shoring, sloping, or protective system less effective than that required by said Construction Safety Orders, or less effective than that required by said Federal Safety and Health Regulations for Construction. The HCRCD and their representatives shall receive the Contractor’s Plan, but shall not review the plan for adequacy or compliance with state and federal requirements. It is the Contractor’s responsibility to fully comply with state and federal safety requirements at all times during the job. Submission of this plan in no way relieves the Contractor from the requirement to maintain safety in all operations performed by it or its Subcontractors.

(g) Hazardous Wastes and Unforeseen Conditions - In accordance with Section 7104 of the State Public Contract Code, if the work contemplated hereunder involves digging trenches or other excavations that extend deeper than four feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the HCRCD, in writing, of any: (i) material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) Subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract. The HCRCD shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work shall issue a change order under the procedures described herein. In the event that a dispute arises between the HCRCD and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for herein, but shall proceed with all Work to be performed hereunder. The Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the HCRCD and Contractor.

(h) The Contractor shall perform all Work in a fire-safe manner. He shall supply and maintain onsite adequate fire fighting equipment capable of extinguishing incipient fires. The Contractor shall comply with applicable federal, state, and local fire prevention regulations and where the regulations do not cover, with applicable parts of the National Fire Prevention Standard for "Safeguarding Building Construction Operations," (NFPA No. 241).

B-53 Protection of Person and Property

(a) The Contractor shall take whatever precautions are necessary to prevent damage to all existing improvements, including above ground and underground utilities, trees, shrubbery that is not specifically shown to be removed, fences, signs, mailboxes, survey markers and monuments, buildings, structures, the HCRCD's property, adjacent property, and any other improvements or facilities within or adjacent to the work. If such improvements or property are injured or damaged by reason of the Contractor's operations, they shall be replaced or restored, at the Contractor's expense, to a condition at least as good as the condition they were in prior to the start of the Contractor's operations.

(b) The Contractor shall adopt all practical means to minimize interference to traffic and public inconvenience, discomfort or damage. The Contractor shall protect against injury any pipes, conduits or other structures, crossing the trenching or encountered in the work and shall be responsible for any injury done to such pipes or structures, or damage to property resulting therefrom. The Contractor shall support or replace any such structures without delay and without any additional compensation to the entire satisfaction of the Engineer. All obstructions to traffic shall be guarded by barriers illuminated at
night. The Contractor shall be responsible for all damage to persons and property directly or indirectly caused by its operations and, under all circumstances, the Contractor must comply with the laws and regulations of the County and the State of California relative to safety of persons and property and the interruption of traffic and the convenience of the public within the respective jurisdictions.

(c) The Contractor is cautioned that it must replace all improvements in rights-of-way and within the public streets to a condition equal to what existed prior to the Contractor's entry onto the job.

(d) Type and time of construction required at any road subject to interference by Contract work will be determined by those authorities responsible for maintenance of said road. It shall be the responsibility of the Contractor to determine the nature and extent of all such requirements, including provision of temporary detours as required; however, the construction right-of-way obtained by the HCRCD at affected roadways will be adequate for provision of all required detours. As required at any road crossing, the Contractor shall provide all necessary flagpersons, guardrails, barricades, signals, warning signs and lighting to provide for the safety of existing roads and detours. Immediately after the need for temporary detours ceases, or when directed, the Contractor shall remove such detours and perform all necessary cleanup work, including replacement of fences, and removal of pavement. Included shall be all necessary replacement of existing roadway appurtenances, grading work, soil stabilization and dust control measures, as required and directed. The cost of all work specified under this Section shall be borne by the Contractor.

(e) The Contractor shall examine all bridges, culverts, and other structures over which it will move its materials and equipment, and before using them, it shall properly strengthen such structures where necessary. The Contractor shall be responsible for any and all injury or damage to such structures caused by reason of its operations.

B-54 Responsibility for Repair of Facilities

All public or private facilities, including but not limited structures, telephone cables, roadways, parking lots, private drives, levees and embankments disturbed during construction of the work shall be repaired and/or replaced by the Contractor to match facilities existing prior to construction. In addition, the Contractor shall be responsible for any settlement damage to such facilities or adjoining areas for a period of one year after acceptance of such required facilities.

The Contractor’s attention is directed to the many water services and sewer laterals crossing the road. It is the Contractor’s responsibility to protect these laterals and repair damage. HCRCD crews are not available to repair water services disturbed by construction.

B-55 Resolution of Construction Claims

(a) For any claim arising under this contract, the following procedures will apply:

(1) The claim must be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the day of final payment. Nothing in this subsection is intended to extend the time limit or supersede notice requirements for the filing of claims as set forth elsewhere in this contract.

(b) The Contractor shall proceed with the work in accordance with the plans and specifications and determinations and instructions of the HCRCD Engineer during the resolution of any claims disputes.

B-56 HCRCD’s Repair
In the event the Contractor refuses or neglects to make good any loss or damage for which the Contractor is responsible under this Contract, the HCRCD may itself, or by the employment of others, make good any such loss or damage, and the cost and expense of doing so, including any reasonable engineering, legal and other consultant fees, and any costs of administrative and managerial services, shall be charged to the Contractor. Such costs and expenses may be deducted by the HCRCD from claims for payment made by the Contractor for work completed or remaining to be completed.

**B-57 Antitrust Claim Assignment**

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to this contract, the Contractor and all subcontractors shall offer and agree to assign to the HCRCD all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or subcontract. This assignment shall be made and become effective at the time the HCRCD tenders final payment to the Contractor, without further acknowledgement by the parties.

**B-58 Waiver of Right to Rescind For Material Breach**

The Contractor agrees that it can be adequately compensated by money damages for any breach of this Contract which may be committed by the HCRCD and hereby agrees that no default, act, or omission of the HCRCD or the Engineer, except for failure to make progress payments as a required by Section B-68, shall constitute a material breach of the Contract entitling the Contractor to cancel or rescind the provisions of this Contract or (unless the HCRCD shall so consent or direct in writing) to suspend or abandon performance of all or any part of the work. The Contractor hereby waives any and all rights and remedies to which it might otherwise be or become entitled, save only its right to money damages.

**B-59 Contractor's License Notice**

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD WHICH HAS JURISDICTION TO INVESTIGATE COMPLAINTS AGAINST CONTRACTORS OF A COMPLAINT IF FILED WITHIN THREE (3) YEARS OF THE DATE OF THE ALLEGED VIOLATION. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, 9835 GOETHE ROAD, SACRAMENTO, CALIFORNIA. MAILING ADDRESS: P.O. BOX 26000, SACRAMENTO, CALIFORNIA 95826.
ARTICLE V. INSURANCE AND LIABILITY

B-60 Insurance

(a) Neither the Contractor nor any Subcontractors shall commence any work until all required insurance has been obtained at their own expense. Such insurance must have the approval of the HCRCD as to limit, form, and amount, and shall be placed with insurers with a current A.M. Best's rating of no less than A:VII.

(b) Any insurance bearing on adequacy of performance shall be maintained after completion of the project for the full guarantee period.

(c) Prior to execution of the Contract, the Contractor shall furnish the HCRCD with original endorsements effecting coverage for all policies required by the Contract. The Contractor shall not permit any Subcontractor identified in the Designation of Subcontractors form to commence work on this project until such Subcontractor has furnished the HCRCD with original endorsements effecting coverage for all insurance policies required by the Contract. The endorsements shall be signed by a person authorized by the insurer to bind coverage on its behalf. The endorsements are to be on forms provided by the HCRCD. As an alternative to the HCRCD’s forms, the Contractor's insurer may, subject to the approval of the HCRCD, provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by this paragraph. The Contractor agrees to furnish one copy of each policy to the HCRCD, and additional copies as requested in writing, certified by an authorized representative of the insurer.

(d) All of the Contractor's policies shall contain an endorsement providing that written notice shall be given, return receipt requested to HCRCD and State Coastal Conservancy at least sixty (30) calendar days prior to termination, cancellation, or reduction of coverage in the policy.

(e) Any policy or policies of insurance that the Contractor elects to carry as insurance against loss or damage to its construction equipment and tools shall include a provision therein providing a waiver of the insurer’s right to subrogation against the HCRCD and the Engineer.

(f) The requirements as to the types, limits, and the HCRCD's approval of insurance coverage to be maintained by the Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under the Contract.

(g) In addition to any other remedy the HCRCD may have, if the Contractor or any of the subcontractors fails to maintain the insurance coverage as required in this Section, the HCRCD may obtain such insurance coverage as is not being maintained, in form and amount substantially the same as required herein, and the HCRCD may deduct the cost of such insurance from any amounts due or which may become due the Contractor under this Contract.

(h) The Contractor and all subcontractors shall, at their expense, maintain in effect at all times during the performance or work under the Contract not less than the following coverage and limits of insurance, which shall be maintained with insurers and under forms of policy satisfactory to the HCRCD. The maintenance by the Contractor and all subcontractors of the following coverage and limits of insurance is a material element of this Contract. The failure of the Contractor or any subcontractor to maintain or renew coverage or to provide evidence of renewal may be treated by the HCRCD as a material breach of this contract.

(1) Worker's Compensation and Employer's Liability Insurance.

(i) Worker's Compensation - Insurance to protect the Contractor or subcontractor from all claims under Worker's Compensation and Employer's Liability Acts, including
Longshoremen's and Harbor Worker's Act. Such coverage shall be maintained, in type and amount, in strict compliance with all applicable State and Federal statutes and regulations. The Contractor shall execute a certificate in compliance with Labor Code Section 1861.

(2) **Claims Against HCRCD** - If an injury occurs to any employee of the Contractor or any of the subcontractors for which the employee or its dependents, in the event of its death, may be entitled to compensation from the HCRCD under the provisions of the said Acts, or for which compensation is claimed from the HCRCD, there will be retained out of the sums due the Contractor under this Contract, an amount sufficient to cover such compensation as fixed by said Acts, until such compensation is paid or it is determined that no compensation is due. If the HCRCD is required to pay such compensation, the amount so paid will be deducted and retained from such sums due, or to become due the Contractor.

(3) **Comprehensive General and Automobile Liability Insurance** - The insurance shall include, but shall not be limited to, protection against claims arising from death, bodily or personal injury, or damage to property resulting from actions, failures to act, operations or equipment of the insured, or by its employees, agents, consultants, or by anyone directly or indirectly employed by the insured. Insurance shall be written with a limit of liability not less than $2,000,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than $2,000,000 aggregate for any damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than $500,000 for all property damage sustained by one person in any one accident; and a limit of liability not less than $500,000 aggregate for any such property damage sustained by two or more persons in any one accident. Any deductibles must be declared to and approved by the HCRCD. At the option of the HCRCD, either: the insurer shall reduce or eliminate such deductibles as respects the entity, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

The comprehensive general and automobile liability insurance coverage shall also include the following:

(i) Provision or endorsement naming the Humboldt County Resource Conservation District, State of California, its officers, agents, and employees, volunteers, GHD, the landowners listed on the Parcel Information sheet from the Drawings, and their consultants, and each of their officers, employees, and agents, each as additional insured in regards to liability arising out of the performance of any work under the Contract including activities related to automobiles leased, hired, borrowed or owned and for work or operations including materials, parts or equipment, and providing that such insurance is primary insurance as respects the interest of the HCRCD and Engineer and that any other insurance maintained by the HCRCD and Engineer is excess and not contributing insurance with the insurance required hereunder.

(ii) "Cross Liability” or “Severability of Interest” clause.

(iii) Broad Form Property Damage, Personal Injury, Contractual Liability, Protective Liability Completed Operations coverages and elimination of any exclusion regarding loss or damage to property caused by explosion or resulting from collapse of buildings or structures or damage to property underground, commonly referred to by insurers as the "XCU" hazards.

(iv) Provision or endorsement stating that such insurance, subject to all of its other terms and conditions, applies to the liability assumed by the Contractor under the Contract, including, without limitation, that set forth in Section B-61, Indemnity and Litigation Costs.

(v) Provision or endorsement stating that any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the HCRCD, its officers, officials, employees, or volunteers.
(vi) The Contractor’s insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer’s liability.

(4) **Builder’s Risk or Installation Floater “All-Risk” Insurance**

Not required for this contract.

### B-61 Indemnity and Litigation Cost

(a) Promptly upon execution of the Contract, the Contractor specifically obligates itself and hereby agrees to protect, hold free and harmless, defend and indemnify the HCRCD, GHD, volunteers, State of California, its officers, agents, employees, and consultants, and each of their officers, officials, employees and agents, from and against any and all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including without limitation attorneys’ fees and other costs of litigation, which arise out of or are in any way connected with the Contractor’s, or its subcontractors’ or suppliers’, performance of work under this Contract or failure to comply with any of the obligations contained in the Contract. This indemnity shall include the duty to defend indemnitees as set forth in civil code section 2778 and/or under other legal basis. This indemnification shall imply no reciprocal right of the Contractor in any action on the contract pursuant to California Civil Code section 1717 or section 1717.5. To the extent legally permissible, this indemnity and hold harmless agreement by the Contractor shall apply to any acts or omissions, whether active or passive, on the part of the Contractor or its agents, employees, representatives, or Subcontractor’s agents, employees and representatives, resulting in liability, irrespective of whether or not any acts or omissions of the parties to be indemnified hereunder may also have been a contributing factor to the liability, except such loss or damage which was caused by the active negligence, sole negligence or willful misconduct of the HCRCD.

(b) In any and all claims against the HCRCD or the Engineer and its consultants, and each of their officers, employees and agents by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Worker’s Compensation statutes, disability benefit statutes or other employee benefit statutes.

### B-62 Protection of Work

(a) The Contractor shall be responsible for the care of all work until completion and final acceptance; and the Contractor shall, at its own expense replace damaged or lost material and repair damaged parts of the work or the same may be done at the Contractor’s expense by the HCRCD and the Contractor and its sureties shall be liable therefore. The Contractor shall make its own provisions for properly storing and protecting all material and equipment against theft, injury, or damage from any and all causes. Damaged material and equipment shall not be used in the work. The Contractor shall take all risks from floods and casualties except as provided by law, and shall make no charge for the restoration of such portions of the work as may be destroyed or damaged by flood or other casualties or because of danger from flood or other casualties or for delays from such causes. The Contractor may, however, be allowed a reasonable extension of time on account of such delays, subject to the conditions hereinbefore specified. The Contractor shall not be responsible for the cost, in excess of five percent (5%) of the contracted amount, of repairing or restoring damage to the work, if the damage was proximately caused by an earthquake in excess of a magnitude of 3.5 on the Richter Scale or by tidal waves; provided that the work damaged was built in accordance with accepted and applicable building standards, and the plans and specifications of the HCRCD.

(b) The Contractor shall effectively secure and protect adjacent property and structures, livestock, crops, and other vegetation. If applicable, the Contractor shall open fences on or crossing the
right-of-way and install temporary gates of sound construction thereon so as to prevent the escape of livestock. Adjacent fence posts shall be adequately braced to prevent the sagging or slackening of the wire. Before such fences are opened, the Contractor shall notify the owner or tenant of the property and, where practicable, the opening of the fence shall be in accordance with the wishes of said owner or tenant. The Contractor shall be responsible that no loss or inconvenience shall accrue to the owner or tenant by virtue of its fences having been opened or the gate not having been either shut or attended at all times. Where special types of fences are encountered, the Contractor shall install temporary gates made of similar materials and of suitable quality to serve the purposes of the original fences. In all cases where the Contractor removes fences to obtain work room, it shall provide and install temporary fencing as required, and on completion of construction shall restore the original fence to the satisfaction of the Engineer. All costs of providing, maintaining and restoring gates and fencing shall be borne by the Contractor. It shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions.

(c) The Contractor shall use extreme care during construction to prevent damage from dust to crops, livestock, milk production and adjacent property. The Contractor, at its own expense, shall provide adequate dust control for the right-of-way and take other preventive measures as directed by the Engineer.

(d) The Contractor shall be responsible for all damage to any property resulting from trespass by the Contractor or its employees in the course of their employment, whether such trespass was committed with or without the consent or knowledge of the Contractor.

(e) The Contractor shall see that the work site is kept drained and free of all ground water and any other water which may impede the progress or execution of the Contract work.

(f) The Contractor shall be responsible for any damage caused by drainage or water runoff from construction areas and from construction plant areas. In an emergency affecting the safety of life, or of the work, or of adjoining property, the Contractor, without special instruction or authorization from the Engineer, is hereby permitted to act at the Contractor's discretion to prevent such threatened loss or injury, and it shall so act without appeal if so instructed or authorized. Any compensation claimed by the Contractor on account of emergency work shall be determined as specified under Section B-3. Should the Engineer deem an emergency condition to exist, the Contractor shall immediately do those things and take those steps ordered by the Engineer. The decision of the Engineer in this respect shall be final and conclusive. Any claims for compensation made by the Contractor on account of emergency work shall be determined as specified under Section B-3.

(g) Except as provided by Government Code Section 4215, the Contractor shall be responsible for the removal, relocation and protection of all public and private utilities, including irrigation facilities in the nature of utilities, located on the site of the construction project if and to the extent that the same are identified in the Contract Documents, and the Contractor shall not be entitled to any extension of time or claim for damages for extra compensation in connection therewith. If and to the extent that such utilities or facilities are not identified in the Contract Documents, as between the Contractor and the HCRCD, the HCRCD will be responsible for the cost of their removal, relocation or protection, as the case may be, but the Contractor shall perform any such work in conformance with applicable provisions of Sections B-3 and B-4, if so directed by the Engineer and in such situation the Contractor shall not be responsible for delay in completion of the project caused by the failure of the HCRCD or the owner of the utility to provide for such removal or relocation. If the Contractor, while performing the Contract, discovers utility or irrigation facilities not identified by the HCRCD in the Contract Documents, it shall immediately notify the Engineer in writing.

(h) Subject to the provisions of this Section, where the work to be performed under the Contract crosses or otherwise interferes with existing streams, watercourses, canals, farm ditches, pipelines, drainage channels, or water supplies, the Contractor shall provide for such watercourse or pipelines and shall perform such construction during the progress of the work so that no damage will result to either public or private interests, and the Contractor shall be liable for all damage that may result from failure to so provide during the progress of the work.
B-63  No Personal Liability

Neither the HCRCD, GHD nor any of their other officers, agents, or employees nor any other public office shall be personally responsible for any liability arising under the Contract, except such obligations as are specifically set forth herein.
ARTICLE VI. MEASUREMENT AND PAYMENT

B-64 Measurement of Quantities

Where the Contract provides for payment on a lump sum price basis, the Contractor shall submit a price breakdown to the Engineer immediately after award of the Contract. The price breakdown as agreed upon between the Contractor and the Engineer shall be used for preparing future estimates for partial payments to the Contractor and shall list the major items of Work and a price for each item. Overhead and other general costs and profit shall be prorated to each item so that the total of all items equals the lump sum price. The price breakdown shall be subject to the approval of the Engineer and Contractor may be required to verify the prices for any or all items. Where the Contract provides for payment on a unit price basis, the quantities of work performed will be computed by the Engineer on the basis of measurements taken by the Engineer.

Whenever the estimated quantities of work to be done and materials to be furnished under this contract are shown in any of the documents including the Proposal, they are given for use in comparing bids and the right is especially reserved, except as herein or otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the HCRCD to complete the work contemplated by this contract and such increase or diminution shall in no way violate this Contract, nor shall any such increase or diminution give cause for claims, liability for damage or adjustment to the Contract time bid price.

B-65 Scope of Payment

(a) The Contractor shall accept the compensation provided in the Contract as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced under the Contract; also for loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the acceptance by the HCRCD and for all risks of every description connected with the prosecution of the work, also for all expenses incurred in consequence of the suspension or discontinuance of the work as provided in the Contract; and for completing the work according to the specifications and plans. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

(b) No compensation will be made in any case for loss of anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as provided in such agreements.
B-66  Progress Estimate

At least ten (10) days before each progress payment falls due (but not more often than once a month), the Contractor will submit to the Engineer a partial payment estimate filled out and signed by the Contractor covering the work performed during the period covered by the partial pay estimate and supported by such data as the Engineer may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the HCRCD, as will establish the HCRCD’S title to the material, and equipment and protect its interest therein, including, applicable insurance. The Engineer will within seven (7) days after receipt of each partial payment estimate either recommend payment to the HCRCD or return the estimate to the Contractor indicating in writing its reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the partial pay estimate.

Payroll certification forms provided by the Contractor and fully executed shall be filed with the Engineer at the time of submission of each partial payment estimate and also when the claim for final payment is submitted. Wage Report forms shall be completed and submitted as set forth in Parts 4 and 5.

B-67  Progress Payments

(a)  The Contractor is made aware that this contract is funded in whole or in part through an agreement with the State Coastal Conservancy (SCC), California Department of Fish & Wildlife (CDFW), Wildlife Conservation Board (WCB), Ocean Protection Council (OPC) and/or NOAA-NMFS. These project funders pay in arrears for work completed.

(b)  The HCRCD and funders will review all partial payments upon receipt of an undisputed, properly submitted progress estimate from the Contractor, recommended by the Engineer.

(c)  Any payment request determined not to be a proper payment request suitable for payment shall be returned to the Contractor as soon as practicable but not later than thirty (30) days after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper.

(d)  The HCRCD will pay the Contractor ninety-five percent (95%) of the amount of each progress estimate within thirty (30) days of receiving payment from the project funder. Contractor should allow for sixty (60) to one hundred and twenty days (120) days after the date of approval of the progress estimate by the funder, before receiving payment (depending on date submitted).

(e)  When, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract, or when in its judgment the total amount of the work done since the last estimate amounts to less than $1,000, no pay estimate will be prepared and no progress payment will be made.

(f)  No progress estimate or payment shall be considered to be an approval or acceptance of any work, materials, or equipment. Estimated amounts and values of work done and materials and equipment furnished will be conformed with actual amounts and values as they become available in subsequent progress estimates, progress payments and the final estimate and payment. All estimates and payments will be subject to correction in subsequent progress estimates and payments and the final estimate and payment.

(g)  The HCRCD requires that any payments due to subcontractors for a portion of the work satisfactorily completed shall be made by Contractor to subcontractors within fifteen (15) days of HCRCD’s payment to Contractor. Failure to make such payments in a timely fashion may result in the HCRCD issuing future progress payments by joint check to the Contractor and subcontractors.
(h) It is mutually agreed between the parties to the Contract that no payments made under the Contract, including progress payments and the final payment, shall be evidence of the performance of the Contract, either wholly or in part, and no payment shall be construed to be an acceptance of any defective or incomplete work or improper materials.

**B-68 Retention Proceeds; Withholdings; Disbursements**

Notwithstanding other requirements of these General Conditions, Section 7107 of the Contract Code shall govern as to retention proceeds; withholding and ultimate disbursement of funds.

It should be noted that the Contractor has a responsibility for the viability of the seeding and mulching activities such that final stabilization as defined by the SWPPP is achieved and the State Water Resources Control Board (SWRCB) has accepted a Notice of Termination (NOT) for the project. This is to be evaluated three months after completion. The Contractor can file for Final Completion per B-70, as soon as all work is completed, but prior to the three month period. In this case, A Notice of Partial Completion will be processed per B-70 highlighting that the SWRCB NOT has not been accepted. If the Contractor requests release of retention prior to SWRCB acceptance of the NOT, then the retention may be released per B-70 and B-71 with the exception that $100,000 of the contract will be withheld until the SWRCB has accepted the NOT, and a Notice of Final Completion is then filed and the final payment is made per B-71.

**B-69 Liens and Stop Notices**

The Contractor agrees to keep the work, the site of the Work and all monies held by the HCRCD free and clear of all liens and stop notices related to labor and materials furnished in connection with the Work, if permitted by law. Furthermore, the Contractor waives any right it may have to file any type of lien or stop notice in connection with the Work. Notwithstanding anything to the contrary contained in the Contract documents, if any such lien or stop notice is filed or there is evidence to believe that lien or stop notice may be filed at any time during the progress of the Work or within the duration of this Contract, the HCRCD may refuse to make any payment otherwise due the Contractor or may withhold any payment due the Contractor a sum sufficient in the opinion of the HCRCD to pay all obligations and expenses necessary to satisfy such lien or stop notice. The HCRCD may withhold such payment unless or until the Contractor, within ten days after demand therefore by the HCRCD, shall furnish satisfactory evidence that the indebtedness and any lien or stop notice in respect thereof has been satisfied, discharged and released of record, or that the Contractor has legally caused such lien or stop notice to be released of record pending the resolution of any dispute between the Contractor and any person or persons filing such lien or stop notice. If the Contractor shall fail to furnish such satisfactory evidence within ten days of the demand therefore, the HCRCD may discharge such indebtedness and deduct the amount thereof, together with any and all losses, costs, damages and attorney's fees suffered or incurred by the HCRCD from any sum payable to the Contractor under the Contract documents, including but not limited to final payment and retained percentage. This Section shall be specifically included in all Subcontracts and purchase orders entered into by the Contractor.

**B-70 Final Acceptance and Date of Completion**

Whenever the Contractor shall deem all work under this Contract to have been completed in accordance therewith, it shall so notify the Engineer in writing, and the Engineer shall promptly ascertain whether the work has been satisfactorily completed and, if not, shall advise the Contractor in detail and in writing of any additional work required. When all the provisions of the Contract have been fully complied with to the satisfaction of the Engineer, it shall proceed with all reasonable diligence to determine accurately the total value of all work performed by the Contractor at the prices set forth in the Contract or fixed by Change Orders, and the total value of all extra work, all in accordance with the Contract. The
Engineer will then certify to said final estimate and to the completion of the work, and will file copies thereof with the HCRCD and the Contractor. The date of completion shall be the date upon which the HCRCD makes its formal written acceptance of the work.

**B-71 Final Payment**

Within ten (10) days after the date of completion, the HCRCD will file in the Office of the County Recorder, a Notice of Completion of the work herein agreed to be done by the Contractor. On the expiration of thirty-five (35) days after the recordation of such Notice of Completion the difference between said final estimate and all payments theretofore made to the Contractor shall be due and payable to the Contractor within 120 days upon receipt of funding by HCRCD from funding agencies and subject to any requirements concerning the furnishings of a maintenance bond, and excepting only such sum or sums as may be withheld or deducted in accordance with the provisions of this Contract. All prior certifications upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate.

**B-72 Final Release**

Final payment to the Contractor in accordance with the final estimate is contingent upon the Contractor furnishing the HCRCD with a signed written release of all claims against the HCRCD arising by virtue of the Contract. Disputed Contract claims in stated amounts may be specifically excluded by the Contractor from the operation of the release. The release shall be in substantially the following form:
WAIVER AND RELEASE UPON FINAL PAYMENT

The undersigned has been paid in full by the HCRCD for all labor, services, equipment and material furnished to the HCRCD on the Improvements located at . California, and does hereby waive and release the HCRCD, its officers, agents, and employees, from all claims and liability to the Contractor arising out of, or in any way connected with, the Contract, except for the disputed contract claims specified below:

Notice of disputed claim Amount of Claim

$__________________________

Dated: _____________________  ________________________________
(Name of Contractor)

By: ___________________________  ______________________________
(Title)

Any payment, however, final or otherwise shall not release the Contractor or its sureties from obligations under the Contract Documents or Performance and Payment Bonds.

B-73 Right to Withhold Payments

(a) In addition to all other rights and remedies of the HCRCD hereunder and by virtue of the law, the HCRCD may withhold or nullify the whole or any part of any partial or final payment to such extent as may reasonably be necessary to protect the HCRCD from loss on account of:

(1) Defective work not remedied, irrespective of when any such work be found to be defective;

(2) Claims or liens filed or reasonable evidence indicating probable filing of claims or liens including, but not limited to claims under Sections 1775, 1776, or 1777.7 of the Labor Code;

(3) Failure of the Contractor to make payments properly for labor, materials, equipment, or other facilities, or to subcontractors and/or suppliers;

(4) A reasonable doubt that the work can be completed for the balance then unearned;

(5) A reasonable doubt that the Contractor will complete the work within the agreed time limits;

(6) Costs to the HCRCD resulting from failure of the Contractor to complete the work within the proper time; or

(7) Damage to work or property.

(8) Damage to another Contractor.
(9) Performance of work in violation of the Terms of the Contract Documents.

(10) Where work on unit items is substantially complete, but lacks cleanup and/or other corrections ordered by the Engineer, amounts shall be deducted from the unit prices in partial payment estimates to amply cover such cleanup and correction.

(11) Failure to file required Equal Opportunity and Affirmative Action forms.

(b) Whenever the HCRCD shall, in accordance herewith, withhold any monies otherwise due the Contractor, written notice of the amount withheld and the reasons therefore will be given the Contractor. After the Contractor has corrected the enumerated deficiencies, the HCRCD will promptly pay to the Contractor the amount so withheld. When monies are withheld to protect the HCRCD against claims or liens of mechanics, materialmen, Subcontractors, etc., the HCRCD may at its discretion permit the Contractor to deliver a surety bond in terms and amount satisfactory to the HCRCD, indemnifying the HCRCD against any loss or expense, and upon acceptance thereof by the HCRCD, the HCRCD shall release to the Contractor monies so withheld.

B-74 Waiver of Interest

The HCRCD shall have no obligation to pay and the Contractor hereby waives the right to recover interest with regard to monies which the HCRCD is required to withhold by reason of judgment, order, statute or judicial process.

B-75 Satisfaction of Claims and Liens

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the HCRCD, a complete release of all liens and claims arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as it has knowledge or information the releases and receipts include all the labor and material for which a lien or claim could be filed; but the Contractor may, if any Subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Engineer, to indemnify the HCRCD against any lien or claim. If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the HCRCD all monies that the latter may be compelled to pay in discharging such a lien, or claim, including all costs and reasonable attorney’s fees.

B-76 Ownership of Documents and Other Work Products

Documents and work products produced under this agreement shall be the property of the Project Funders per the requirements of the contract between the Project Funders and the HCRCD.
PART 5: TECHNICAL SPECIFICATIONS
# PART 5 – TECHNICAL SPECIFICATIONS

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1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. General:

1. The Contract Documents describe the Work to be performed under this Contract which includes, but is not limited to, furnishing all tools, equipment, materials, supplies, and manufactured articles for the Project. It shall also include the furnishing of all transportation and services, including fuel, power, water, and essential communications necessary for the performance of all labor, work, or other operations required for the performance of the Contract in accordance with the Contract Documents.

2. The Contractor should carefully review all sections of the Specifications in order to completely understand the Work and all constraints including schedule, environmental, permit and material requirements.

3. Contractor is encouraged to proceed in an orderly and expeditious manner based on the constraints shown on the Drawings and described in the Specifications. All Work is to be constructed in strict accordance with the Contract Drawings and Specifications and subject to the terms and conditions of the Contract.

B. The Contractor shall completely review, be familiar with and adhere to the terms of all permits and agency approvals for this project. Appendix A to these Specifications contain a summary of many, but possibly not all, of the most significant permit conditions that need to be actively complied with by Contractor. The HCRCDD will be providing the Contractor copies of permits, certifications, or authorizations from the following agencies including, but not limited to: California Department of Fish and Wildlife; U.S. Army Corps of Engineers; California Regional Water Quality Control Board; the U.S. Fish and Wildlife Service; National Marine Fisheries Service; State Lands, California Coastal Commission; Caltrans; and Humboldt County Building Department. Copies of all permits are available from the HCRCDD and will remain at the project site throughout the duration of construction. The Contractor is also responsible for adhering to all conditions provided in the Stormwater Pollution Prevention Plan (SWPPP) and shall also remain at the Project Site.

C. Contractor shall obtain all other necessary permits and comply with them and all other applicable Local, State, and Federal laws and regulations.

1. Compliance with County permits: Contractor is responsible for obtaining and compiling with any relevant County Encroachment permit needed for the proposed construction activities, including, but not limited to, traffic and encroachment permits related to the delivery and hauling of construction equipment and materials, and traffic control measures. The Contractor must follow all pertinent Caltrans requirements for hauling large vehicles or equipment to the project site. To determine requirements for the specific vehicles to be used, see the web site at <http://www.dot.ca.gov/hg/traffops/permits>, if a county road is used for heavy equipment transport or wide loads, pertinent clearances with the Humboldt County Department of Public Works must be obtained.
2. Compliance with Caltrans Encroachment permit: Contractor is responsible for obtaining, paying fee and complying with the dual Caltrans Encroachment permit needed for the proposed construction activities within the Highway 211 right-of-way, and including but not limited to, traffic and encroachment permits related to the delivery and hauling of construction equipment and materials, and traffic control measures. The Contractor must follow all pertinent Caltrans requirements for hauling large vehicles or equipment to the project site. To determine requirements for the specific vehicles to be used, see the web site at <http://www.dot.ca.gov/hg/traffops/permits>, if a county road is used for heavy equipment transport or wide loads, pertinent clearances with the Humboldt County Department of Public Works must be obtained.

D. Location of the Work:

1. The project is located in Humboldt County near Ferndale, CA. A Vicinity Map is provided on the cover sheet of the drawings that illustrate the location of the project. The design drawings provide information regarding the limits of the project and its topography.

E. Technical Data and Other Reports:

1. Geotechnical and Engineering Geologic Report for the Salt River Ecosystem Restoration Project prepared by LACO Associates (March 2012) contains geotechnical evaluation of site conditions and recommendations. Copies of this report are available for review upon request. The Contractor shall be aware that the hydrologic conditions at the time the work was completed for the Geotechnical and Engineering Geologic Report may be different than the conditions that the Contractor shall encounter based on the Contractor's construction schedule. The Contractor shall account for actual hydrologic conditions experienced during construction.

2. Electronic Data: Upon request and subject to signing a release of liability, the following computer generated data will be provided:

   a. Existing and Finished Ground Surface Models provided in a 2017 Autodesk Civil3D drawing file or as XML data or as determined appropriate by the HCRCD.

3. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against HCRCD, GHD, or any of their Related Entities with respect to:

   a. The completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

   b. Other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

   c. Any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

F. Contractor's Duties:
1. Except as specifically noted, provide and pay for:
   a. Labor, materials, and equipment.
   b. Tools, construction equipment, and machinery.
   c. Water and utilities required for construction.
   d. All other facilities and services necessary for proper execution and completion of Work.

2. Pay legally required sales, consumer, and use taxes.

3. Conform to the requirements of the project permits.

4. Secure and pay for, as necessary for proper execution and completion of the Work, all other applicable permits and licenses.

5. Give required notices.

6. Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on performance of the Work.

7. Promptly submit written notice to Construction Manager of observed variance of Contract Documents from legal requirements.

8. If any Subcontractor or person employed by the Contractor shall appear to the Construction Manager to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the requisition of the Construction Manager, and such person shall not again be employed on the Work.

9. The Contractor is responsible for providing construction staking and surveying as required for the job. The HCRCD will provide available control point information and an electronic file of the finished design surface and alignments as needed for the purpose of construction staking.

1.02 CONTRACT DESCRIPTION

A. General:

1. All Work is contained in this Contract. The limits of Work are shown in the Contract Drawings and described in these Specifications. It will be the Contractor’s responsibility to coordinate their activities to resolve conflicts.

2. All risk of loss, damage or diminution to the Work shall rest with Contractor until final acceptance of the Work by the HCRC.

B. Work conducted includes, but is not limited to:

1. Installation of signage and temporary stormwater BMPs.

2. Installation of temporary construction access routes, entrances, and equipment and material handling/storage areas;

3. Install cofferdams and water management system;
4. Demolition and removal of debris;
5. Within limits of grading, grub and clear incidental vegetation;
6. Chip grubbed material and place in designated onsite areas;
7. Excavate channel sediments and haul to designated application areas;
8. Excavate sediment management area (SMA) sediments and haul to designated application areas;
9. Construct large wood structures;
10. Construct streambank repair and place rock;
11. Remove existing rock grade control and construct new rock grade control;
12. Place seed/mulch;
13. Place Biodegradable Mat;
14. Install fencing and gates;
15. Install fiber rolls and other erosion/sediment control BMPs to achieve final site stabilization.

1.03 SPECIAL CONSTRUCTION REQUIREMENTS

A. General:

1. The excavation and application areas are on private property. The Contractor will be required to coordinate their schedule with the Construction Manager personnel to ensure a minimum of interruptions to private property owners. Should field conditions or property owners warrant the postponement of the excavation of a portion of a particular reach, as determined by the Construction Manager, the Contractor shall be prepared to resume work at an alternative location along the channel corridor as field conditions and property owners permit and shall not be claimed as a delay by the Contractor.

2. A proposed construction sequence is presented below. THIS PROJECT IS HIGHLY SENSITIVE TO TIMING CONSTRAINTS RELATED TO SPECIAL STATUS SPECIES, ASSOCIATED PERMIT CONDITIONS AND PHYSICAL CONDITIONS. The phasing/sequencing of most construction elements will be constrained by construction schedules stipulated by special status species in terms of construction windows and clearance and monitoring requirements, and requirements in environmental permits. Creek flow and weather conditions will also affect project scheduling.

3. Biological restrictions: Prior to start of construction, the Construction Manager will arrange for a qualified biologist to give Contractor's staff a presentation regarding special status species and restrictions required in terms of construction start clearance surveys, and construction monitoring. Because of the high number of special status species that occur in the area, most, if not all, elements may not be implemented until after certain dates and after construction clearance surveys by a qualified biologist have been performed and completed.
4. Prior to start of construction, a qualified biologist under the direction of the Construction Manager must complete a check for presence of sensitive aquatic, avian and terrestrial species within construction areas. In certain instances, only one clearance survey may be required. In other instances, particularly in certain areas where special status species are sighted or known to occur, surveys to clear the site may be required on a more frequent basis. Once the site has been cleared, the Construction Manager will authorize the Contractor to begin work.

5. Required clearance surveys: if special status species are located during clearance surveys, the Contactor shall stop work immediately and notify the Construction Manager. If possible, a Biologist under direction of the Construction Manager will conduct seining or trapping to relocate the species a safe distance away from the construction activities and out of the work limit line. However, in some instances, a buffer zone may need to be established in which no work would be conducted within some specified distance from the species’ location. Further required actions could include, but are not limited to: 1) temporary delay in construction while species are relocated by qualified biologists; or 2) delay of construction until predetermined date after breeding season with no construction occurring within a buffer zone around the area where species were found. Owner and their representatives are not liable for such delays.

6. Scheduling of required clearance surveys: The Contractor will be required to provide a construction schedule. On a weekly basis, the Contractor and Construction Manager will meet and discuss the status of the project and updates to schedules. Clearance surveys will be scheduled with the basis of this revised weekly schedule. The Contractor will not be allowed to start construction in specific areas until clearance surveys have been performed and authorization is given by the Construction Manager. It is the responsibility of the Contractor to provide the Construction Manager an updated schedule that allows for adequate time to schedule the clearance surveys required.

7. All in-stream construction activities within the Salt River channel and sediment management area (SMA) including excavation, shall be limited to June 15th thru October 15th, unless written authorization from California Department of Fish and Wildlife is received to extend the work period. Contractor shall not begin any instream work without prior approval of Construction Manager. In the event of rain, Contractor shall suspend all work until Construction Manager provides approval to resume work.

8. Work windows specified in the various project permit conditions may conflict within one another therefore the most restrictive windows shall be exercised and as shown in the schedule on the plans.

9. The Contractor shall have all project work completed by October 15, 2019. The HCRCID is not liable for any expenses that this regulatory-driven change in schedule that may incur.
### B. Proposed Construction Sequence:

<table>
<thead>
<tr>
<th>Description</th>
<th>Notes*</th>
<th>July</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<tbody>
<tr>
<td>Mobilization and establish channel corridor access/temporary haul routes</td>
<td></td>
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<td>Install and uninstall coffer dams as necessary</td>
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<tr>
<td>Grub and Incidental Vegetation Clearing</td>
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<tr>
<td>Channel excavation and off-haul sediment to application areas</td>
<td>(2)</td>
<td>(4)</td>
<td>(6)</td>
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<tr>
<td>Construct wood habitat structures</td>
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<tr>
<td>Streambank Repair</td>
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<td>Install temporary rock grade control</td>
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<tr>
<td>Install new fencing and gates throughout channel corridor</td>
<td>(2)</td>
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<tr>
<td>Sediment Management Area (SMA) excavation and off-haul sediment to application areas</td>
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<td>Apply seed/mulch</td>
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<td>Place biodegradable mat</td>
<td>(7)</td>
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<tr>
<td>Demobilization and final punch list items</td>
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<tr>
<td>Site Stabilization per SWPPP Compliance</td>
<td>(9)</td>
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</table>

**Construction Sequence Notes:**

1. Do not disturb existing aquatic habitats including ditches, channels and ponded water areas that have not been cleaned by the biologist.
2. Pending results of pre-construction nesting and migratory bird surveys entrance/exits from County roads,
3. Start date pending fish relocation
4. Work to be completed during low tide period and provide sufficient lead-time to remaining
5. Refer to haul and application plan for specific dates
6. Biodegradable mat
7. Prior to onset of winter rain
8. All work shall be completed pursuant to project specifications. Contractor to refer to specifications for further information regarding timing and extent of environmental clearance, earthwork, water diversion, dewatering, erosion control, sediment hauling/application and all other requirements associated with this project.
9. Work Window

### C. Specific Sequence and Constraints:

1. The Contractor shall note that only certain constraints are addressed in this section. All Work, whether or not addressed here, shall be governed by applicable parts of this section, and schedules and procedures further submitted for approval.

2. The first order of business is submission of submittals. Complete submittals for all items to be incorporated into the Work shall be made no later than fifteen (15) calendar days following receipt of Notice to Proceed unless noted otherwise in these specifications.

3. The Contractor shall include all Work described in this section in the construction schedule. The sequence and constraints identified in this section shall be followed in the construction of the Work. However, alternatives to these sequences and constraints may be submitted by the Contractor for review by the HCRCD.

4. Specific Sequencing constraints include:
   a. The pre-construction conference described in this Section shall be coordinated to accommodate attendance by representatives of the HCRCD.
   b. Contractor shall anticipate weekly construction progress meetings with HCRCD staff to review work progress and issues (see Section 01 33 00).
c. Contractor shall notify City of Ferndale Fire Department of any construction activity that may affect traffic and potentially impact emergency vehicle and fire apparatus access. Additionally, Contractor shall notify the City of Ferndale and Humboldt County Sheriff Departments of any life safety concerns.

d. Stockpiling of excavated soils that are potentially contaminated is not allowed. If hazardous materials are encountered, contractor to remove contaminated material from the site and dispose of it at an approved disposal site subject to the approval by the Construction Manager.

e. All temporary stockpiles shall be removed from within the limits of disturbance by October 15, 2019 and placed in designated areas shown on the plans.

f. Riparian plant and tree container stock will be delivered to the site (separate contract) in October/November 2019. The Contractor shall allow delivery of the container stock to the site and shall allow access for the Landscape Contractor to install the container stock starting November 1st.

1.04 CONTRACT METHOD

A. The Contractor shall include the requirements of the General Conditions of the Contract as a part of all of its subcontract agreements.

B. All work as identified and described in the construction drawings and Specifications. In the case that there are discrepancies between Drawings and Specifications, Specifications take precedence over drawings.

1.05 UNDERGROUND FACILITIES

A. The Contractor shall exercise care in all excavations to avoid damage to existing underground facilities. This shall include potholing and hand digging in those areas where underground facilities are known to exist until they have been sufficiently located to avoid damage to the facilities.

B. Prior to fabrication of any materials, the Contractor shall verify the locations and elevations of existing underground facilities which the Contractor is connecting to.

C. The Contractor shall exercise care in maintaining those pipes, valves, and appurtenances to be abandoned and/or removed which are required for the continuing operation of the existing facilities until such time as they can be abandoned. The Contractor shall exercise extreme caution in working in any area adjacent to existing underground pipes. It is essential that the existing utilities be maintained in service until the new Work is ready for full-time operation and is placed in service.

D. No additional compensation shall be provided the Contractor for compliance with the provisions of this section for the damage and repair of such facilities due to the lack of care.

1.06 PROJECT MEETINGS

A. Section 01 30 00 - Administrative Requirements: Preconstruction Meeting, Progress Meetings, and Close Out Meetings.
1.07 PROJECT APPROACH PLAN

A. Contractor shall submit for review and approval a Project Approach Plan that shall summarize the contractor’s approach to completing the clearing, grubbing and earthwork operations of the project. The intent of the Plan is to demonstrate how the Contractor will approach and quantify the work to be completed and demonstrate compliance with the plans and specifications. This submittal covers several technical specifications as well as the plans and it is the Contractor’s responsibility to understand the requirements of the contract, and how the plans and specifications relate to one another and to this submittal.

B. The Contractor’s Project Approach Plan shall be provided as a submittal as a first order of business prior to mobilization. The plan shall be kept up to date during the project and shall be revised as necessary as the project progresses. The plan shall be reviewed at the regular construction progress meetings.

C. The Contractor’s Project Approach Plan should briefly and clearly describe the Contractor’s proposed approach to conduct the following work.

1. Mobilization and Site Preparation
   a. Describe the strategy for mobilization and site preparation including equipment staging proposed access locations and other preparations for the Contractor to prepare for the work.

2. Grubbing and Incidental Clearing
   a. Describe how the grubbing and chipping operations will be conducted in accordance to the specifications and where the material will be temporarily/permanently placed and the hauling methods/routes.
   b. Provide a volume estimate of the anticipated wood chip volume generated from cleared and grubbed material.
   c. Contractor to place the wood chips in the designated wood chip stockpiles as described in these specifications and as shown on the plans. For quantities in excess of that allowed on the plans, excess shall be placed in the staging area.

3. Earthwork and Sediment Hauling Operations
   a. Describe the sequencing to excavate the Active Channel, Active Berm, Side Channel, Alcoves and installation of Structures following grubbing operations.
   b. Describe the proposed methods to achieve the Agricultural Application Sediment specification.
   c. Describe how the in situ excavation volume of Agricultural Application Sediment cut will be quantified for each Application Area. Although the Area to receive the “remainder” as shown on the plans and bid schedule on will receive the balance of material not applied in specific quantities to the other areas, the contractor is required to quantify the final in situ amount of material applied to this Area. The Contractor shall propose an approach to track and verify volumes which could include but not limited to trucking tags with an agreed upon in situ volume per truck load, pre-and post-surveys of the application areas, pre-and post-surveys of the excavation area, and shall be subject to the approval of the Construction Manager.
d. Describe how the Contractor will conduct the sediment hauling and application process include haul routes and application timing in accordance to the plans.

e. Describe the windrow (pile) spacing based on the truck volume to achieve the specified equivalent depth.

f. Describe how the Contractor will document finish grades suitable for generating Contractor provided Record Drawings.

g. Provide written verification upon completion the total insitu volume (in cubic yards) of Agricultural Application Sediment was delivered to application areas.

4. Debris Disposal of Other Materials

a. Describe how the Contractor will handle and account for temporarily stockpiled debris and other deleterious material to be disposed of offsite.

b. Provide a proposed disposal plan subject to approval by the Engineer's approval for any material not meeting the Wood Chip Mulch or Agricultural Application Sediment specifications.

5. Demobilization and Site Cleanup

a. Describe the strategy for demobilization at the conclusion of the job including cleanup, removal of temporary facilities, and other work associated with job closeout.

END OF SECTION 01 11 00
SECTION 01 14 19

USE OF SITE

PART 1 GENERAL

1.01 DESCRIPTION

A. Related Requirements specified elsewhere:

1. Section 31 10 13 - Demolition/Debris Removal
2. Section 31 11 00 – Grubbing and Incidental Clearing

1.02 INFORMATION OF ON SITE CONDITIONS

A. Information obtained by the Construction Manager regarding site conditions, subsurface information, and existing facilities, and similar data are shown on the Plans and are from the information made available by the HCRCD. Exact location and completeness are not guaranteed.

B. Construction activities is limited to the limits of disturbance and sediment application areas shown on drawings.

1.03 CONTRACTOR’S RESPONSIBILITIES

A. The HCRCD has entered into agreements with all property owners within the project limits of disturbance and the sediment application areas. These agreements allow the Contractor’s use of these areas in accordance to the plans and specifications. The Contractor is responsible to execute the work within these areas in accordance to the plans and specifications including hauling the excavated sediment to the designated applications areas.

B. If additional areas beyond the limits of disturbance and sediment application areas shown on the plans are desired by the Contractor to execute the work, the Contractor shall first receive authorization from the Construction Manager. Contractor shall obtain all necessary permissions and approvals for use of these areas and shall submit a signed statement from the property owner granting permission and holding the HCRCD harmless from any and all damages that may result from the Contractor’s use of the site.

C. The Contractor shall satisfy their self as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads, work in sensitive environment and uncertainties of weather, tidal variations, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment facilities needed preliminary to and during the prosecution of the work and all other matters which can in any way affect the work or the cost thereof under this contract.

D. The Contractor further shall satisfy their self as to the character, quality, and quantity of materials to be encountered from inspecting the site, any exploratory work done by the HCRCD, as well as from information presented by the Plans and Specifications made a
part of this contract. Any failure by the Contractor to acquaint himself with all the available information available as part of the Bid Documents or referenced in the Bid Documents will not relieve him from responsibility for properly estimating the difficulty or cost of successfully performing the work.

E. The Contractor shall note that many of the staging and stockpile areas and construction entrances are located on private property and that heavy truck and equipment operations may cause damage. The Contractor shall restore these areas back to pre-project conditions or better. Damage caused by Contractor's operations shall be repaired by the Contractor at no additional cost to the HCRCD or property owner.

F. The Contractor shall note that many of the existing roads and streets proposed needed to off-haul sediment to the application areas are rural in character and that heavy truck and equipment operations may cause roadway damage in excess of normal usage. Damage caused to the streets by Contractor's operations shall be repaired by the Contractor at no additional cost to the HCRCD.

1.04 USE OF SITE AND ACCESS ROADS

A. The Contractor shall:

1. Conduct all operations with the least possible obstruction and inconvenience to the public and adjacent landowners.

2. Have under construction no greater length or amount of work than can be continuously and vigorously prosecuted properly with due regards to the rights of the public.

3. To the extent possible, finish each section before beginning work on the next.

4. Be cognizant of other construction projects within the vicinity that may create traffic delays to trucks transporting fill material between the Project and offsite disposal sites.

5. Assume full responsibility for protection and safekeeping of products stored on premises.

B. Manage construction worker parking and access to avoid impeding access for emergency vehicles and local area residents.

C. Protect the rights of abutting property owners by:

1. Planning and conducting construction operations so that the least inconvenience as possible is caused to abutting property owners;

2. Prohibit access of staff and subcontractors to properties abutting the project site, except as approved in writing by the Construction Manager.

D. Access to Private Properties:

1. Contractor shall maintain access for local vehicular and pedestrian traffic to private properties along the main access road to the project site.

E. The Contractor shall be responsible for providing adequate safeguards, safety devices,
and protective equipment, and for taking any other needed actions to protect the life, health, and safety of the public, and to protect property in connection with the performance of the work covered by the Contract.

F. The Contractor shall stage materials and equipment in designated staging and stockpile areas as shown on the plans.

G. Staging in permitted areas shall be at the Contractor’s risk. HCRCD or their representatives shall not be held liable for any damage to or loss of materials or equipment located within these areas or at any location on the project site(s).

H. Access to worksite: Contractor and Contractor’s employees and subcontractors shall use access routes as indicated on project plans.

I. After demobilization, Contractor shall repair any damage to existing roads and property to pre-existing conditions or better.

J. The Contractor shall remediate temporary haul roads at the conclusion of use through blading, ripping or otherwise removing ruts and de-compaction. The Construction Manager reserves the right to require the Contractor to repair damage where haul roads were constructed. Restore access roads and staging areas to pre-existing conditions or better.

K. Construction access routes and equipment staging areas shall be limited within the project disturbance areas to the extent feasible and as shown on the plans. Construction activities shall be prohibited from unnecessarily disturbing aquatic habitat. Disturbance such as excavation, filling or dewatering of any existing ditches, channels and other ponded water areas shall occur only after the area has been seined and cleared by CDFW biologist.

L. Hauling Restrictions:
   1. Comply with all legal load restrictions in the hauling of materials. Delivery and haulage access, including contractor mobilization and demobilization, will be scheduled to minimize impacts on traffic on area roadways.
   2. Do not load structure, roadway or roadway shoulder with weight that will endanger or render unusable any structures or roadways or underground utilities.
   3. See notes on Haul and Application Plan sheet for use of Aggler Lane and Fulmor Road Bridge.

M. Parking and Traffic Regulations:
   1. Persons involved in construction operations shall comply with parking and traffic regulations for use of County/State streets, as enforced by County/State authorities, except for other arrangements as may be agreed to between Contractor and County authorities and approved by the Construction Manager.

N. Existing Improvements in Streets:
   1. Existing street signs, electrolizers, traffic signals, fire hydrants, underground valves and meter boxes, manholes, trees and other items occurring in streets adjacent to the site shall be left undisturbed, unobstructed, and easily accessible at all
times during construction, except as otherwise indicated or agreed to between Contractor and County authorities.

O. Covering, moving, trimming, or altering trees and other vegetation which may become necessary shall be done only with consent of and in cooperation with County and City authorities having jurisdiction. Contractor shall pay costs, which may be incurred.

P. Construction Camp: Establishment of a camp within the project property will not be permitted.

Q. Residence trailers will not be allowed within the project site, or designated staging and stockpiling areas, except for security purposes as approved by the Construction Manager.

1.05 PROTECTION OF NATURAL FEATURES

A. Avoid impacts to vegetation outside the limits of construction disturbance. Prior to any construction, the Contractor shall demarcate the limits of construction disturbance. No access or construction permitted outside of the designated work / access zones without prior approval from the Construction Manager.

B. Confine all operations to limits shown for the project. Prevent damage to natural surroundings. Restore damaged areas, repairing or replacing damaged trees and plants, at no additional expense to the HCRCD.

C. Do not remove, injure, or destroy trees or other plants without prior approval of the Construction Manager. Consult with the Construction Manager and remove agreed upon roots and branches that interfere with construction. All pruning of canopy or cutting of roots will be done under the supervision of the Construction Manager or their representative, and shall be done as set forth by the National Arborist Association or the International Society of Arboriculture.

D. If the Contractor destroys or injures trees and shrubs designated for protection or outside of the work limits, the Contractor shall replant at a 3:1 ratio pursuant to Mitigation Measure 3.4.1-1.6 in the FEIR and as directed by the Construction Manager.

E. Water quality of all creeks must be maintained through the implementation of a Storm Water Pollution Prevention Plan (SWPPP) that includes measures for controlling erosion and preventing fuel spills.

F. As specified in Section 01 57 00, the Contractor shall take all preventative measures to protect the staging areas from contamination due to oil or fuel spills or any other contaminants. The Contractor will submit to the Construction Manager for approval a Spill Prevention and Response Plan. Any leaks or spills which occur on the project site shall be fully removed from the project site. If contamination occurs, the Contractor shall immediately notify the Construction Manager, and decontaminate the area to the satisfaction of the Construction Manager, prior to further improvement or further construction activities in general.

G. All staging and laydown areas disturbed by the Contractor or construction or construction related activities shall be restored to their pre-existing state or in accordance with these Specifications.

1.06 PROTECTION OF PROPERTY AND LANDSCAPE
A. Preserve public and private property, and protect monuments established for the purpose of perpetuating horizontal, vertical, cadastral, or boundary control. When necessary to destroy a monument, reestablish the monument according to applicable state statute or by the direction of the Construction Manager. The Contractor shall notify the Construction Manager of any monument that may need to be destroyed. If the Construction Manager determines that the destruction of the monument is unavoidable, Construction Manager will arrange for resetting the monument and associated costs. If a monument is destroyed by the Contractor’s negligence or without the Construction Manager’s approval the Contractor shall pay for resetting the monument.

B. Do not excavate, remove, damage, alter or deface any archeological or paleontological remains or specimens. Control the actions of employees and subcontractors on the project to ensure that protected sites are not disturbed or damaged. Should any of these items be encountered, suspend operations at the discovery site, notify the Construction Manager and continue operations in other areas. The Construction Manager will inform the Contractor when operations may resume at the discovery site.

C. Existing Utilities:
   1. Contractor shall be responsible for locating and preventing damage to known utilities or utility support structures. If damage occurs to utilities, Contractor shall repair utility at no additional expense to HCRCD.

D. Protect utilities from construction operations: 48 hours before beginning work in an area, the Contractor shall notify Underground Service Alert (USA), at 1-800-227-2600, to determine locations of existing utilities. Cooperate with utility owners to expedite the relocation or adjustment of their utilities to minimize interruption of service and duplication of work.

E. If the work requires removing or relocating a utility, the contract will assign the task to the Contractor or the utility owner. When this task is assigned to the utility owner and work is not complete before the Contractor begins work, the Contractor shall immediately notify the Construction Manager in writing.

F. Any authorized agent of the Owner or utility owners may enter the site to repair, rearrange, alter, or connect their equipment. The Contractor shall cooperate with such efforts and shall avoid creating delays or hindrances to those doing the work. As needed, the Contractor shall arrange to coordinate work schedules.

G. If utility services are interrupted as a result of damage by the construction, immediately notify the utility owner, the Construction Manager, and other proper authorities. Cooperate with them until service is restored. Do not work around fire hydrants until provisions for continued service are made and approved by the local fire authority.

H. The Contractor shall protect private or public property on or in the vicinity of the work site. The Contractor shall ensure that it is not removed, damaged, destroyed, or prevented from being used unless the contract so specifies.

I. Fencing: The Contractor shall maintain existing fencing to remain and install temporary fencing to maintain a safe worksite and to preserve livestock, pasture, or property when working through or adjacent to private property.
J. Livestock and Gate Control: Contractor shall follow all Construction Manager’s instructions regarding gate closure. Contractor is liable for all damages resulting from any and all improper gate closure instructions.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION [NOT USED]

END OF SECTION 01 14 19
Humboldt County Resource Conservation District
Salt River Ecosystem Restoration Project – 2019 Construction

SECTION 01 15 00
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 GENERAL

A. Unless otherwise specified in other individual sections of these specifications, quantities of work shall be determined from measurements or dimensions in horizontal planes.

B. Units of measurement shall be in accordance with U.S. Standard Measures.

C. See the general conditions for special provisions related to progress payments and payment schedule to the contractor.

D. The measurement and payment items are listed below:

1. Pay Item Quantities- All bid Item List quantities are shown in the Bid Schedule as final pay items for payment purposes only. For a final pay item, accept payment based on the Bid Item List quantity, to achieve the lines and grades shown on the plans, regardless of actual quantity used unless dimensions are changed by the Construction Manager.

2. The payments to the Contractor are based on the following items. It is the intent that the scope of the description of the following items encompasses the entire scope of the work as shown on the plans and described in the specifications. The bid amounts shall be for complete in place installations.

3. Any other work shown on the plans and not specifically mentioned/described in the following bid items will be paid under Bid Item No. A1.

1.02 BID SCHEDULE A (DOWNSTREAM OF SALT RIVER STATION 312+00)

ITEM A1. MOBILIZATION/DEMOBILIZATION

Measurement for this item shall be on a LUMP SUM basis. Payment shall correspond to percent complete as confirmed by the Construction Manager and described in this bid item below. This Work covers all Contractor costs and effort associated with mobilizing equipment, materials, and labor to the project site as well as demobilization of the same for the base bid schedule. The incremental mobilization/demobilization costs associated with any additive bid items will be covered in those items, if awarded. Items covered by this item include, but are not limited to, bonds, insurance, contracting and administrative and permitting costs, equipment mobilization to the work areas, temporary facilities and utilities, gravel access roads, temporary culverts, temporary fencing and construction entrances, punch list items, repairs of damaged property, site cleanup, final site restoration, road repairs and project maintenance and warranty.

1. This Bid Item also covers all Contractor costs and effort associated with providing traffic control measures as described in these Specifications, the Plans, and Contractor obtained encroachment permit. Items covered by this include, but are not limited to, labor, materials, equipment, and other expenses for complete traffic control throughout the length of the project including times when the Contractor is not working on site. Included are notifications, road closures and detours, flaggers as necessary, and all other materials and equipment needed to temporarily control traffic throughout the project.
2. This Bid Item also covers the development of the Project Approach Plan submittal. The Project Approach Plan will define the overall approach the contractor proposes to take to complete the work associated with the contract documents. It also includes any revisions based on owner or agency comments.

3. When 10 percent of the total original Contract amount is earned from bid items, excluding amounts paid for materials on hand, 50 percent of the amount of the bid price for mobilization/demobilization will be paid for mobilization/demobilization. Upon completion of all Work on the project, payment of the balance of the bid amount for mobilization/demobilization will be paid.

4. Any other work shown on the plans and not specifically mentioned/described in the following bid items will be paid under mobilization/demobilization.

ITEM A2. WATER MANAGEMENT, DUST/EROSION CONTROL AND ENVIRONMENTAL PROTECTION
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to construct and manage facilities and work associated with water meeting permit requirements including control, diversion and disposal of water. Items covered by this include, but are not limited to, cooperation with CDFW biologists, installation of fish screens, cofferdams, diversion piping and sediment basins as needed, dewatering pumps, hoses and tanks, dewatering bags, and disposal of water. This item also includes maintenance and removal of water management system. This item also includes routine dust suppression, maintenance of existing construction entrances, tire cleaning stations as needed to prevent tracking, and cleaning of public roads. This Work covers all Contractor costs and effort associated with obtaining construction water from approved sources, applying water to prevent fugitive dust, and as-needed routine street sweeping/vacuuming on County roads to comply with project permits. This item covers all Contractor costs and effort associated with providing erosion/sediment control BMPs, complying with the Storm Water Pollution Prevention Plan (SWPPP) and performing all necessary inspections and adjustments to the BMPs to comply with the SWPPP and compliance with all applicable local, regional and federal laws, protection of cultural and historic resources, and all other environmental protection measures shall be considered incidental to this item and includes all erosion control items necessary to comply with the SWPPP which are not covered under Bid Item No. A14, A22 and A23.

ITEM A3. DEMOLITION, DEBRIS DISPOSAL AND SALVAGE
Measurement for this item shall be on a LUMP SUM basis. Payment shall correspond to percent complete as confirmed by the Construction Manager. This Work covers all Contractor costs and effort associated with all demolition shown on the plans or required to complete the work shown on the plans, and the removal and disposal of deleterious materials encountered during construction. This includes waste, refuse, and fencing to be removed as shown on the plans, as well as materials removed as part of the demolition as shown on the plans. This also includes the removal, and disposal of additional deleterious materials that may be encountered during construction such as fence material, tires, piping, culverts, bottles, metals, abandoned water piping, appliances, and other waste. Actual quantity is unknown but is estimated to be approximately 20 cubic yards of material. This bid item and quantity does not include woody debris or rocks encountered during the work, which is covered elsewhere in the bid schedule.

ITEM A4. CONSTRUCTION SURVEYING AND STAKING
Measurement for this item shall be on a LUMP SUM basis. Payment shall correspond to percent complete as confirmed by the Construction Manager. This Work covers all Contractor costs and effort associated with providing construction staking, establishing control and project layout as described in these Specifications and as required to meet the
requirements of the plans. Items covered by this item include, but are not limited to, labor, materials, equipment, and other expenses required to stake the alignment and grades, project features and improvements, grubbing limits and all other areas as required to construct the work.

ITEM A5. CLEARING AND GRUBBING
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to clear, grub and chip all stumps, roots, logs, and other woody debris encountered on the surface or subsurface where shown on the plans or as required to complete the work. The cleared and grubbed material shall be chipped, hauled to designated onsite stockpiles shown on the plans, and the remainder volume hauled and stockpiled in the Staging Area shown on the plans. This bid item also includes the incidental clearing of areas encountered in the field that require clearing prior to grubbing, hauling and chiping this material and placing in designated areas.

ITEM A6. CHANNEL SEDIMENT EXCAVATION FOR NATIVE BACKFILL
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the sediment excavation, placement, compaction and testing of approved native backfill as required to achieve the lines and grades within the grading limits in accordance to the requirements as shown on the plans and as described in the specifications. Contractor shall assume that not all sources of onsite excavated sediment adjacent to native backfill areas will be suitable for approved native backfill.

ITEM A7. CHANNEL SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 1 (6,080 CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the sediment excavation, processing, hauling, and application of Agricultural Application Sediment in accordance to the requirements as shown on the plans and as described in the specifications. This bid item also includes the construction and deconstruction/restoration of construction accesses and placement of erosion/sediment control BMPs as may be needed by the contractor at the application area, but which are not covered under Item A1. Bid Item A7 includes all finished grading of project areas as required to achieve the required lines and grades.

ITEM A8. CHANNEL SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 3 (11,130 CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same as for Item A7.

ITEM A9. CHANNEL SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 2 (REMAINDER CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same as for Item A7. The quantity under this bid item shall be the total required excavated material meeting the Agricultural Application Sediment specifications minus the Agricultural Application Sediment required amounts hauled to Area 1 and Area 3. The total required is a function of the existing and finished grades, the amount of material grubbed, native backfill and other factors.

ITEM A10. SMA SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 5 (1,860 CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the sediment excavation from the Sediment Management Area (SMA), processing,
measurement and application of the sediment in accordance to the requirements as shown on
the plans and as described in the specifications. This bid item also includes the
construction and deconstruction/restoration of construction accesses and placement of
erosion/sediment control BMPs as may be needed by the contractor at the application
area, but which are not covered under Item A1.

ITEM A11. SMA SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 6 (1,910
CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. The specific measurement
and payment requirements for this item shall be the same as for Item A10.

ITEM A12. SMA SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 7 (4,820
CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. The specific measurement
and payment requirements for this item shall be the same as for Item A10.

ITEM A13. SMA SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 2
(REMAINDER, APPROX. 6,500 CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. The specific measurement
and payment requirements for this item shall be the same as for Item A10. The quantity
under this bid item shall be the total required excavated sediment from the SMA to
achieve the final lines and grades on the plans minus the required sediment volume
excavated and hauled under Item A10, A11 and A12.

ITEM A14. BIODEGRADABLE MAT
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full
compensation for all materials, labor, equipment and supervision necessary to complete
the installation of the biodegradable mat as shown on the plans and as required by the
specifications.

ITEM A15. SALT RIVER LWD CONSTRICTOR
Measurement for this item shall be on an EACH basis installed. Payment shall include full
compensation for all materials, labor, equipment and supervision necessary to complete
the construction of the log structure. This includes the contractor to furnish the logs in
accordance to the plans and specifications.

ITEM A16. SALT RIVER LOG COVER STRUCTURE
Measurement for this item shall be on an EACH basis installed. The specific payment
requirements for this item shall be the same as for Item A15.

ITEM A17. SALT RIVER GUIDE LOG
Measurement for this item shall be on an EACH basis installed. The specific payment
requirements for this item shall be the same as for Item A15.

ITEM A18. AVIAN HABITAT LOG
Measurement for this item shall be on an EACH basis installed. Payment shall include full
compensation for all materials, labor, equipment and supervision necessary to complete
the construction of the log structure. This includes segregating and selecting the
appropriate logs during site clearing from onsite sources, hauling to the installation
location, placement and related work required.

ITEM A19. ROCK SLOPE PROTECTION (LIGHT CLASS) FOR DITCH CONFLUENCE NEAR
SALT RIVER STATION 257+50
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full
compensation for all materials, labor, equipment and supervision necessary to excavate,
off-haul material to application area, place rock as shown on the plans or as required to
ITEM A20. SALT RIVER CHANNEL BANK REPAIR
Measurement for this item shall be on an LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the Salt River Channel Bank repair as shown on the plans. The Lump Sum bid price for this item shall include coordination, water management, fence removal/replacement, excavation, fabric placement, rock placement, drain rock placement, native soil placement/compaction/testing, biodegradable mat, import/off-haul soil, seed application and all other work associated with the repair.

ITEM A21. FENCING AND GATES
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the installation of the permanent exclusion fencing and gates to meet the intent as shown on the plans and as required by the specifications.

ITEM A22. FIBER ROLLS
Measurement for this item shall be on a LINEAR FOOT basis measured along the top of a single fiber roll. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to install and maintain the fiber rolls during site stabilization and per satisfaction of the Construction Manager and as shown on the plans and as required by the specifications and SWPPP compliance. No additional payment will be paid for maintained/replaced fiber rolls.

ITEM A23. SEEDING AND MULCHING
Measurement for this item shall be on an LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the seeding and mulching as shown on the plans and as required in the specifications. The Lump Sum bid price for Seeding and Mulching shall include coordination, soil preparation, seed application, mulching, inspections and shall include all supervision, labor, material, equipment, supplies, and incidentals, required for performing all incidental and related work involved in seed and mulch applications including but not necessarily limited to cooperation with the third party Landscape Contractor, seed mixing, applications, irrigation as needed for seed germination and growth until acceptance of SWPPP Notice of Termination (NOT); furnishing and installing supplemental seed, mulch and all other work necessary to establish vegetative cover over seed application areas shown on the Plans.

ITEM A24. TEMPORARY SHORING AND BRACING
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the installation of the temporary shoring as necessary to construct the project in accordance to the plans and specifications.

1.03 BID SCHEDULE B (UPSTREAM OF SALT RIVER STATION 312+00)

ITEM B1. WATER MANAGEMENT, DUST/EROSION CONTROL AND ENVIRONMENTAL PROTECTION
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A2 but specific to upstream of Salt River Station 312+00.
ITEM B2. DEMOLITION, DEBRIS DISPOSAL AND SALVAGE
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A3 but specific to upstream of Salt River Station 312+00 and the quantity is estimated to be approximately 10 cubic yards of material. This bid item and quantity does not include woody debris or rocks encountered during the work, which is covered elsewhere in the bid schedule.

ITEM B3. CONSTRUCTION SURVEYING AND STAKING
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A4 but specific to upstream of Salt River Station 312+00.

ITEM B4. CLEARING AND GRUBBING
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A5 but specific to upstream of Salt River Station 312+00.

ITEM B5. CHANNEL SEDIMENT EXCAVATION FOR NATIVE BACKFILL
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A6 but specific to upstream of Salt River Station 312+00.

ITEM B6. CHANNEL SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 4 (4,420 CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A7 but specific to upstream of Salt River Station 312+00.

ITEM B7. CHANNEL SEDIMENT EXCAVATION, HAULING, AND APPLICATION – AREA 2 (REMAINDER, APPROX. 8,370 CUBIC YARDS, IN SITU)
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same as for Item A7 but specific to upstream of Salt River Station 312+00. The quantity under this bid item shall be the total required excavated material meeting the Agricultural Application Sediment specifications minus the Agricultural Application Sediment required amount hauled to Area 4 from upstream of Salt River Station 312+00. The total required is a function of the existing and finished grades, the amount of material grubbed, native backfill and other factors.

ITEM B8. BIODEGRADABLE MAT
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A14 but specific to upstream of Salt River Station 312+00.

ITEM B9. ROCK SLOPE PROTECTION FOR SALT RIVER GRADE CONTROL
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to excavate, off-haul material to application area, place rock as shown on the plans or as required to meet the intent of the plans and as required in the specifications. Materials include, but are not limited to geotextile fabric, rock, salvaged rock from the existing grade control necessary to meet the intent as shown on the plans and as required by the specifications. The work under this item is specific to upstream of Salt River Station 312+00.

ITEM B10. FENCING AND GATES
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A21 but specific to upstream of Salt River Station 312+00.
ITEM B11. FIBER ROLLS
Measurement for this item shall be on a LINEAR FOOT basis measured along the top of a single fiber roll. The specific measurement and payment requirements for this item shall be the same at ITEM A22 but specific to upstream of Salt River Station 312+00.

ITEM B12. SEEDING AND MULCHING
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A23 but specific to upstream of Salt River Station 312+00.

ITEM B13. TEMPORARY SHORING AND BRACING
Measurement for this item shall be on a LUMP SUM basis. The specific measurement and payment requirements for this item shall be the same at ITEM A24 but specific to upstream of Salt River Station 312+00.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION [NOT USED]

END OF SECTION 01 15 00
SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Coordination and project conditions
B. Field Construction Managing
C. Pre-bid meeting
D. Preconstruction meeting
E. Progress meetings
F. Environmental compliance training

1.02 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.03 COORDINATION AND PROJECT CONDITIONS

A. Coordinate scheduling, submittals, and Work of various sections of Project to ensure efficient and orderly sequence of installation of construction elements.

1.04 FIELD CONSTRUCTION MANAGER

A. The Contractor will provide construction staking services.
B. Protect survey control points prior to starting site Work; preserve permanent reference points during construction.
C. Promptly report to Construction Manager loss or destruction of reference point or relocation required because of changes in grades or other reasons.
D. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Construction Manager.

1.05 PRECONSTRUCTION MEETING

A. Construction Manager will schedule meeting after Notice of Award.
B. Prior to the commencement of Work at the site, a Preconstruction meeting will be held at a mutually agreed time and place.
C. Unless previously submitted to the Construction Manager, the Contractor shall bring to the conference three (3) copies of each of the following:
   1. Draft Construction Schedule.
2. Procurement schedule of major equipment and materials and items requiring long lead time.

3. Submittal schedule.

4. Substitution Requests per Section 01300, “Administrative Requirements.”

5. Letter of Responsibility designating emergency contacts for the Contractor after business hours (3 copies).

D. The purpose of the meeting is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established.

E. The Construction Manager will preside at the Preconstruction Meeting and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

F. Agenda (Tentative):

1. Notice to Proceed date.

2. Contractor’s tentative schedules.

3. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.

4. Critical work sequencing.


6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.

7. Scheduling.

8. Major equipment deliveries and priorities.

9. Use of premises by HCRCD and Contractor.

10. Environmental compliance.

11. Owner's requirements and occupancy.

12. Site Safety Contractor’s assignments for safety and first aid.

13. Construction facilities and controls provided by HCRCD.


15. Procedures for maintaining record documents.

1.06 PROGRESS MEETINGS
A. The Construction Manager shall schedule, arrange and conduct progress meetings. These meetings shall be conducted once per week, or as mutually agreed by Contractor and HCRCD, and shall be attended by the Contractor’s superintendent and representatives of key Subcontractors, utilities, and others, who are active in the execution of the Work. The purpose of these meetings shall be to review the Contractor’s schedule provided in accordance with this Section, resolve conflicts, and in general, coordinate and expedite the execution of the Work.

B. Construction Manager will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings and record the meeting minutes.

C. Attendance Required: Job superintendent, key subcontractors, HCRCD, Construction Manager, as appropriate to agenda topics for each meeting.

D. Agenda (Tentative):
   1. Review and acceptance of minutes of previous meeting.
   2. Review of Work progress.
   3. Field observations, problems, and decisions.
   4. Site Safety.
   5. Environmental compliance.
   9. Maintenance of progress schedule.
  10. Corrective measures to regain projected schedules.
  11. Planned progress during succeeding work period.
  12. Coordination of projected progress.
  14. Effect of proposed changes on progress schedule and coordination.
      a. Progress Payment.
      b. Change Orders.
      c. Claims.
  15. Other business relating to Work.

E. Record minutes and distribute copies within two days after meeting to participants, with one copy each to Construction Manager, HCRCD, and those affected by decisions made.
1.07 ENVIRONMENTAL COMPLIANCE TRAINING

A. All personnel working on site will be required to participate in a short briefing by the Construction Manager and qualified biologist about the presence of federally and state-listed bird, fish, amphibian, reptile, mammalian, and Plant species at the site; 2) non disturbance areas; 3) construction windows and effects on sequencing of work; 4) buffers between construction activities and breeding/nesting areas; and 5) pre-construction and construction clearance surveys and construction monitoring requirements prior to initiating and continuing work in construction work areas, including the potential necessity for trapping or seining and relocation; 6) Need to halt work if potential special status species located by Contractor or representative and notify the Construction Manager before proceeding with work; 7) Requirements for minimizing other environmental impacts, including noise, traffic, etc.; and 8) The possible presence of archaeological or cultural resources and need to halt work if suspected archaeological or historic resources are found and notify the Construction Manager before proceeding with work.

B. Contractor shall ensure that all on-site workers and contractors understand and agree to observe the standards for work outlined in project permits.

END OF SECTION 01 30 00
PART 1 GENERAL

1.01 SECTION INCLUDES
A. Submittal procedures.
B. Construction progress schedules.
C. Product data & shop drawings.
D. Test reports.
E. Certificates.

1.02 MEASUREMENT AND PAYMENT
A. Measurement and payment for this item shall be included in the Bid Item to which it relates. No additional measurement or payment will be included for the requirements of this section.

1.03 SUBMITTAL PROCEDURES
A. Submit on Submittal Form with information similar to the attached.
B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
C. Identify Project, Contractor, Subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
E. Schedule submittals to expedite Project, and deliver to Construction Manager.
F. For each submittal for review, allow fourteen (14) calendar days excluding delivery time to and from Contractor.
G. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
H. When revised for resubmission, clearly identify changes made since previous submission.
I. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
1.04 CONSTRUCTION PROGRESS SCHEDULES

A. Submit initial schedules within ten (10) calendar days after date of Notice to Proceed. After review, resubmit required revised data within ten (10) calendar days.

B. Submit revised Progress Schedules with each Application for Payment.

C. Distribute copies of reviewed schedules to Project site file, Subcontractors, suppliers, and other concerned parties.

D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.

E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities.

F. Indicate estimated percentage of completion for each item of Work at each submission.

G. Revisions To Schedules:
   1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
   2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.

1.05 PRODUCT DATA AND SHOP DRAWINGS

A. Product Data and Shop Drawings: Submit to Construction Manager for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.

B. Submit a single re-producible copy or email an electronic version of the submittal to the Construction Manager.

C. Mark submittal to identify applicable products, models, options, and other data. Supplement manufacturers’ standard data to provide information specific to this Project.

1.06 TEST REPORTS

A. Submit for Construction Manager’s knowledge as contract administrator.

B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.07 CERTIFICATES

A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Construction Manager, in quantities specified for Product Data.

B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Construction Manager.

1.08 REQUESTS FOR SUBMITTALS

A. Contractor is directed to each Specification section for required submittals, however, the anticipated Submittals shall consist of, but is not necessarily limited to the following:

<table>
<thead>
<tr>
<th>Section</th>
<th>Submittal Title</th>
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<tbody>
<tr>
<td>01 11 00</td>
<td>Project Approach Plan</td>
</tr>
<tr>
<td>01 30 00</td>
<td>Draft Construction Schedule (3 copies)</td>
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<tr>
<td>01 30 00</td>
<td>Submittal Schedule (3 copies)</td>
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<tr>
<td>01 30 00</td>
<td>Substitution Requests (3 copies)</td>
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<td>01 30 00</td>
<td>Letter of Responsibility (3 copies)</td>
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<td>01 50 00</td>
<td>Construction Water Sources</td>
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<td>01 55 50</td>
<td>Temporary Traffic Management Plan</td>
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<td>01 55 50</td>
<td>County Encroachment Permit and Caltrans Encroachment Permit</td>
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<td>01 57 00</td>
<td>Spill Prevention and Response Plan</td>
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<td>01 57 00</td>
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<td>Tire Tracking Control Plan</td>
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<td>Dust Prevention Plan</td>
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<td>Seed and Straw Mulch</td>
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Per Note on Plans | Biodegradable Mat

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION [NOT USED]
SHOP DRAWING/MATERIAL REVIEW REQUEST

INSTRUCTION: Complete this form and attach to each specific Shop Drawing Submittal.

1. Contract Name___________________________________________________________
2. Submission No.___________________________________________________________

Submittal:
3. New ______  4. Resubmittal ______

5. Date of this submittal_______________________________________________________
6. Date of receipt by Construction Manager_____________________________________
7. Previous Submission No. (if any)___________________________________________
8. Contractor______________________________________________________________
9. Submitted by (signature and date)

<table>
<thead>
<tr>
<th>Item</th>
<th>11. Specification Section and Paragraph Nos.</th>
<th>12. Description of Material (Name, Type, Model, Catalog No., Mfg., Etc.)</th>
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13. Comment:
Include all drawing titles and numbers, specific information not on drawings, information coming later, etc.

For Use of Construction Manager Only:

14. Action taken* ____________________________________________________________

15. Review by (signature and date)                                           

__________________________________________________________________________

*See review stamp on individual items.
# SUBMITTAL TRANSMITTAL

**PROJECT:**  
HCRC  
Salt River Ecosystem Restoration Project  
2019 Construction  
**CONTRACTOR:**

**SPECIFICATIONS SECTION:**

**SUBMITTAL NO.:**

**DRAWING REF. NO.:**

**SUBCONTRACTOR/SUPPLIER:**

**DATE:**

**PAGE NO.:**  
OF  
**CC:**

## TRANSMITTAL RECORD

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## REVIEW ACTION:

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<th>DRAWING/ITEM</th>
<th>DATED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

## OWNER'S REP'S REMARKS:

<table>
<thead>
<tr>
<th>REMARKS</th>
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</table>

**NOTE:** NOTATIONS DO NOT AUTHORIZE CHANGES TO CONTRACT SUM OR TIME. IF YOU ARE AUTHORIZED TO PROCEED WITH THE WORK IDENTIFIED IN THIS SUBMITTAL, IT IS ASSUMED THAT NO CHANGE IN THE CONTRACT AMOUNT OR COMPLETION DATE IS REQUIRED. IF A CHANGE IN THE WORK AFFECTING YOUR CONTRACT AMOUNT OR COMPLETION DATE IS INVOLVED, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY.
SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1  GENERAL

1.01  SECTION INCLUDES

A.  Public Utilities
   1.  Agencies Affected
   2.  Notification Requirements
   3.  Contractor Responsibility

B.  Temporary Utilities
   1.  Temporary electricity
   2.  Temporary sanitary facilities

C.  Existing Utilities and Improvements
   1.  General
   2.  District Right of Access
   3.  Underground Utilities Indicated
   4.  Underground Utilities not Indicated
   5.  Approval of Repairs
   6.  Maintain in Service

D.  Temporary Field Office and Storage Facility

E.  Vehicular Access

F.  Parking

G.  Progress Cleaning and Waste Removal

H.  Barriers

I.  Security

J.  Construction Water

K.  Removal of utilities, facilities, and controls
1.02 RELATED SECTIONS
   A. Section 01 33 00 – Submittal Procedures

1.03 MEASUREMENT AND PAYMENT
   A. Refer to Section 01 15 00 Measurement and Payment.

1.04 SUBMITTAL REQUIREMENTS
   A. Section 01 33 00 - Submittal Procedures
   B. Refuse Disposal and Recycling Plan
      1. Within five (5) working days of Award of Contract, Contractor shall prepare and
         submit a Refuse Disposal and Recycling Plan. The Plan shall include:
         a. A list of materials that could be recycled during the course of the Contract.
            This list should name the material, recycling methods, and/or proposed
            disposal location.
         b. Anticipated approach for collection, stockpiling, and disposal of materials.
         c. List of potential disposal and recycling locations.

1.05 PUBLIC UTILITIES
   A. Agencies Affected
      1. Electrical: Pacific Gas & Electric. It should be noted that where a structure is known
         to receive service does not have overhead service then underground service shall be
         assumed to exist.
      2. Gas: Delivered Propane
      3. Telephone and Communication Service: AT&T and Frontier. It should be noted that
         where service to a structure is known to receive service does not have overhead
         service then underground service shall be assumed to exist.
      4. Potable Water Service:
         a. RCSD has jurisdiction over potable water usage approximately west of
            California Street and within the project area.
         b. Del Oro Water Company has jurisdiction over potable water usage
            approximately east of California Street.
         c. Also, Individual owner provided water (See 1.14.A, this Section)
      5. Drainage and Public Roads: Humboldt County Department of Public Works has
         jurisdiction over drainage in County ROW and the City of Ferndale has jurisdiction
         over drainage in the City ROW. Caltrans has jurisdiction over Highway 211.
6. **Sewer Service:**
   a. City of Ferndale approximately east of California Street
   b. Also, Individual owner provided septic system.

**B. Notification Requirements**

1. Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway; the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than three (3) work days nor more than seven (7) work days prior to excavation.

2. Notify USA at (800) 227-2600 at least three (3) work days, but no more than fourteen (14) work days, prior to such excavation.

**C. Contractor Responsibility**

1. The Contractor shall anticipate water, sewer, electrical, communication, drainage and telephone services. It may be expected that there will be variation in location from that as shown on the Plans to the actual location. Contractor responsible for verifying actual location in the field after pre-marking by the various utilities affected.

2. No extra payment will be allowed for the removal, replacement, repair, or possible increased cost caused by inadvertent or planned interception and breaking of underground obstructions which may exist.

3. It should be understood that the various utilities are indicated on the Plans to show only the approximate location and must be verified in the field by the Contractor. The various utility agencies will cooperate with the Contractor to endeavor to familiarize him with all known underground utilities obstructions, but this will not relieve the Contractor from full responsibility in anticipating and locating their actual location.

4. The Contractor, in conjunction with the affected utility company(s), shall pothole and establish the horizontal and vertical locations of all utilities shown on the Plans and marked in the field. This may be done on an area-by-area basis, but shall be accomplished at least five working days in advance of the date of construction within such area. Any discrepancies (horizontal and/or vertical) between the locations of utilities found by the potholing operation than that shown on the Plans shall be brought to the Construction Manager's attention immediately. Potholing shall be required at the connection to existing facilities prior to the shop drawing submittals.

1.06 **TEMPORARY UTILITIES**

**A. Temporary Electricity**

1. HCRCD supplied temporary electricity is not available.

2. Contractor shall provide such temporary electrical facilities as necessary for Work, to supply temporary lighting for work operations and temporary power for portable power driven tools. Contractor will pay cost of energy used and is responsible for all necessary permits, permissions, code and regulatory compliance associated with such use.
3. Before temporary electrical facilities are installed either by utility company or Contractor, the exact location of such facilities shall be approved by the Construction Manager. It is essential that Contractor located facilities so as not to interfere with construction equipment, materials handling or storage, traffic areas, later project construction or site development, other contracts, or subsequent work.

B. Temporary Sanitary Facilities

1. Provide and maintain required facilities and enclosures sufficient to accommodate Contractor and Subcontractor personnel at locations easily accessible from work. Provide facilities at time of project mobilization and at location approved by the Construction Manager.

2. Contractor is responsible for cleaning, maintenance, security, placement and removal of facilities.

1.07 EXISTING UTILITIES AND IMPROVEMENTS

A. General

1. The Contractor shall protect all underground utilities and other improvements that may be impaired during construction operations. It shall be the Contractor’s responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

2. In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon request of the Contractor, be notified by the HCRCD to move such property. Time of relocation of the utility by the utility company is not a responsibility of the HCRCD. When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the Construction Manager a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.

3. Where the proper completion of the Work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement that is indicated, the Contractor shall remove and, without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Construction Manager and the HCRCD. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former location and to equal or better condition as found prior to removal.

B. Right of Access

1. The right is reserved to the HCRCD, regulatory agencies, County staff, Caltrans, private property owners to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property when necessary during the performance of the Work of this Contract.
C. Underground Utilities Indicated

1. Existing utility lines that are indicated or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling, and if damaged, shall be immediately repaired or replaced by the Contractor.

D. Underground Utilities not indicated

1. In the event that the Contractor damages any existing utility lines that are not indicated or the locations of which are not made known to the Contractor prior to excavation, a written report thereof shall be made by the Contractor to the HCRCD.

2. All costs of locating, repairing damage not due to failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not shown in the Contract documents with reasonable accuracy, and for equipment on the project which was actually working on that portion of the Work which was interrupted or idled during such Work will be paid for as extra Work.

E. Approval of Repairs

1. All repairs to a damaged utility or improvement are subject to inspection and approval by an authorized representative of the utility or improvement Owner before being concealed by backfill or other Work. Contractor to schedule with Owner for the inspection and shall notify the Construction Manager of the schedule and place of the inspection a minimum of three (3) calendar days prior to inspection.

F. Maintain In Service

1. All power and telephone or the communication cable ducts, gas and water mains, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the corridor of Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Construction Manager are made with the Owner of said pipelines, duct, main, sewer, storm drain, pole, or wire or cable. The Contractor shall be responsible for and shall repair all damage due to its operations, and the provisions of this section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

1.08 TEMPORARY FIELD OFFICE AND STORAGE FACILITY

A. Jobsite trailers, offices, additional parking, fuel storage and small equipment storage may be located within the staging areas shown on the plans and subject to the approval of the Construction Manager.

1.09 VEHICULAR ACCESS

A. Provide unimpeded access for HCRCD vehicles.

B. Provide means of removing mud from vehicle wheels before entering streets.

C. Use existing on-site roads for construction traffic.

D. Reasonable precautions shall be taken to prevent the entry of unauthorized vehicles into the corridor and application areas during non-work hours.
1.10 PARKING

A. Arrange for temporary surface parking areas in staging/stockpiling areas to accommodate construction personnel.

B. Use of existing on-site driveways used for construction traffic is NOT permitted, unless authorized by the Construction Manager.

C. Tracked vehicles not allowed on paved areas.

D. Maintenance
   1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, and mud.
   2. Maintain existing areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain surface course and drainage in original, or specified, condition.

E. Removal, Repair
   1. Remove temporary materials and construction at Substantial Completion.
   2. Repair existing facilities damaged by use, to original condition.

1.11 PROGRESS CLEANING AND WASTE REMOVAL

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.

B. Collect and remove waste materials, debris, and rubbish from site weekly and dispose off-site.

1.12 SIGNS

A. At all times during construction, Contractor shall install and maintain precautionary signage or warning buoys upstream and downstream of the project areas in order to provide adequate warning notices to recreational users on the Salt River of the potential safety hazards associated with project construction.

B. See Haul and Application Plan for additional signage requirements.

1.13 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations. Access to adjacent ranches/dairies shall not be restricted or denied at any time.

B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
1.14 SECURITY

A. Security Program

1. Protect Work, existing premises and operations from theft, vandalism, and unauthorized entry.

2. Initiate program in cooperation with existing property owners.

3. Maintain program throughout construction period until HCRCD acceptance precludes need for Contractor security.

B. Entry Control

1. Restrict entrance of unauthorized persons and vehicles into active construction area.

2. HCRCD will control entrance of persons and vehicles related to HCRCD operations.

1.15 CONSTRUCTION WATER

A. The HCRCD has identified the following potential water sources for use during construction. Additional sources may be available and subject to review and approval by the Construction Manager. The Contractor shall make arrangements for water required for construction, and furnish all necessary equipment, labor, materials and owner compensation as needed. All water sources, including those listed below shall be approved by the Construction Manager prior to use. All water used within the project area shall be non-saline unless authorized by the Construction Manager. Clear water diverted from any surface water tributaries shall not be used for construction purposes and shall be bypassed to Salt River downstream of construction activities, for the exception of the inundation area shown on the plans where water may be permitted to be withdrawn subject to authorization from the Construction Manager.

<table>
<thead>
<tr>
<th>Optional Sources</th>
<th>Contact (Owner)</th>
<th>Available Volume</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Nuisance water encountered during excavation</td>
<td>NA</td>
<td>Undefined</td>
<td>Water withdrawal shall comply with project permits.</td>
</tr>
<tr>
<td>2 Private Irrigation Well #1 per plan</td>
<td>Andy Albin 707-496-0073</td>
<td>Undefined</td>
<td>Water available from: 7am – 6pm daily</td>
</tr>
<tr>
<td>3 Private Irrigation Well #2 per plan</td>
<td>William Tunzini 707-498-4544</td>
<td>Undefined</td>
<td>Water available from: To be confirmed</td>
</tr>
<tr>
<td>4 Private Irrigation Well #3 per plan</td>
<td>Daniel DelBiaggio 707-845-7399</td>
<td>Undefined</td>
<td>Water available from: To be confirmed</td>
</tr>
<tr>
<td>5 Private Irrigation Well #4 per plan</td>
<td>Andy Albin 707-496-0073</td>
<td>Undefined</td>
<td>Water available from: 7am – 6pm daily</td>
</tr>
<tr>
<td>6 City of Ferndale WWTP</td>
<td>Steve Coppinini 707-496-9694</td>
<td>TBD</td>
<td>Withdrawal location TBD</td>
</tr>
<tr>
<td>7 Del Oro Water District</td>
<td>Troy Huber 707-786-9080</td>
<td>TBD</td>
<td>Withdrawal location TBD</td>
</tr>
<tr>
<td>8 Riverside Community Service District (RCSD)</td>
<td>Nancy Trujillo 707-502-8005</td>
<td>TBD</td>
<td>Withdrawal location TBD</td>
</tr>
<tr>
<td>9 Other unidentified sources</td>
<td>TBD</td>
<td>TBD</td>
<td>To be approved by Construction Manager</td>
</tr>
</tbody>
</table>
1.16 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.

B. Clean and repair damage caused by installation or use of temporary work.

C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION

3.01 HOUSEKEEPING

A. The Contractor shall keep project site neat, orderly, and in a safe condition at all times.

B. The Contractor shall provide enough containers for collecting construction debris and construction materials to be recycled.

C. The Contractor shall cover or wet down dry materials and rubbish when necessary to prevent blowing dust.

D. The Contractor shall keep volatile wastes in covered containers.

E. The Contractor shall use excavated material as soon as possible.

F. The Contractor shall place construction debris in refuse containers at least daily.

G. The Contractor shall contain stockpiled soil/material in a neat and orderly fashion and prevent from eroding or migrating into any water bodies. The Contractor shall use silt fencing or similar, if necessary.

H. The Contractor shall keep all construction equipment and construction materials, including stock-piles, out of road-side drainages.

END OF SECTION 01 50 00
SECTION 01 55 50
TEMPORARY TRAFFIC CONTROL SYSTEMS

PART 1 GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall provide all materials, equipment, and labor necessary to furnish, place, and maintain all temporary traffic control systems, including construction and maintenance area traffic control devices and flaggers as required to perform the Work in accordance with this Section, and all other appurtenant Work, complete in place, as shown on the Contract Drawings and as specified herein.

B. The contractor is responsible for obtaining all traffic and encroachment permits related to the delivery and hauling of construction equipment and materials, and traffic control measures and devices. The contractor must follow all pertinent state and local requirements for transporting large vehicles and equipment to the project site.

C. The contractor is responsible for temporary placement, maintenance and removal of temporary traffic control devices and signs in accordance to these plans and the approved traffic management plan. If signs are placed in the county right-of-way (row), the contractor shall be responsible for applying for and securing the necessary encroachment permit(s) and paying all associated fees. If signs are to be placed on private property, the contractor shall receive permission from the construction manager and property owner prior to placement.

D. Work Specified in this Section

1. Review of proposed Work areas to determine temporary traffic control requirements.

2. Verification of temporary traffic controls with the Construction Manager prior to implementation.

3. Maintenance of traffic control during the Work.

4. Monitoring traffic control during the Work to determine necessary changes required to maintain adequacy.

5. Maintenance of traffic control during non-work hours to maintain adequacy.


1.02 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. General Provisions, Section B-51 – Public Convenience.

B. Humboldt County Public Works Encroachment Permit Application.

C. Caltrans Encroachment Permit Application.
D. State of California, Department of Transportation (Caltrans) Specifications and Standards
   1. Standard Specifications
      a. Section 7 Legal Relations and Responsibility
      b. Section 12 Construction Area Traffic Control Devices
E. Commercial Standards
   1. State of California, Division of Industrial Safety, Department of Industrial Relations.
   2. Safety Orders of the Division of Industrial Safety, Department of Industrial Relations of the State of California, current edition.

1.04 SUBMITTALS
A. In addition to the submittal requirements of Section 01 33 00 “Submittal Procedures,” the Contractor shall provide the following at least ten (10) working days prior to any work in or on public roadways or private right-of-ways and shall meet with the approval of the Construction Manager:
   1. Prior to receiving a notice to proceed, the contractor shall provide a Temporary Traffic Management Plan for review and approval by the Construction Manager, Caltrans and the County Department of Public Works. The Temporary Traffic Management Plan shall conform to the provisions on the plans, these specifications, the County encroachment permit provisions and shall be a living document, subject to modification and updated as project conditions change. If changes are made to the traffic plan, Contractor shall submit and allow 10 working days for plan review and approval by the construction manager and the county. The traffic plan shall be specific to the proposed activities that will occur on the existing roads:
      a. Traffic plan shall be developed and implemented in accordance to the latest edition of the California manual on uniform traffic control devices (MUTCD) and all other pertinent state and local requirements. The traffic plan shall include, but is not limited to, the proposed average daily traffic (ADT), duration of work, haul routes, sign placement, and frequency of on-site meetings to be performed to review and update the traffic plan.
      b. Specific details for construction staging, including the location and limits of the work zone. Contractor is responsible to install signs in accordance to the plans.
      c. Locations of all encroachments and excavations.
      d. Plans for protection of the public from construction-related hazards.
      e. Lane closures and traffic routing including consideration of construction-related trucking routes.
      f. Hauling routes for approval by the Construction Manager and County.
g. Lane closure markings, barricade locations, and sign locations showing the necessary signing, methods of delineation and channelization and reference to the appropriate Caltrans standards and California MUTCD details for all affected roads.

h. Dimensions of lanes affected by traffic control that will be open to traffic.

i. Dimensions and locations of signs and cone tapers.

j. Identification of side streets and driveways affected by construction and show how they will be handled.

k. Detail of how public transit will be handled through the construction area.

l. Time periods of lane closures and detours.

2. No work except for installation of project identification signs will be allowed to commence prior to approval of the Traffic Plan.

3. A "Letter of Responsibility," on company letterhead, indicating the names and telephone numbers of at least three different persons who shall be available to be contacted in case of emergency at any time during the life of the contract. Said persons must have decision-making authority within the company.

PART 2  PRODUCTS

2.01  GENERAL

A. All construction area stationary and portable sign panels, lights, barricades, and traffic control devices shall be the product of a commercial sign or safety device manufacturer conforming to the requirements of Section 12, "Construction Area Traffic Control Devices," of the Caltrans Standard Specifications, unless otherwise specified in this Section, shown on the Drawings, and/or as directed by the Construction Manager.

PART 3  EXECUTION

3.01  GENERAL

A. No work shall commence until traffic control signing has been approved by the Construction Manager and the encroachment permit issued by the County.

B. The Contractor shall take all necessary precautions for the protection of the Work and the safety of its employees and the public. Traffic shall be maintained through the construction or maintenance zone in accordance with Sections 7-1.08, 7-1.09 and 12 of the Caltrans Standard Specifications and Sections 01 10 00 “Summary of Work.”

C. Field changes to traffic control plans shall be approved by the Construction Manager prior to installation.

D. The Contractor shall provide all appropriate traffic control measures in accordance with this Section prior to start of construction in the public right-of-way or in any area adjacent to the street right-of-way where public safety is affected.

E. All construction area signs, lights, barricades, and traffic control devices shall be furnished, installed, maintained, and removed in conformance with the latest edition of the California
MUTCD. Additional or alternate signs may only be used when specifically authorized by the Construction Manager.

F. The Contractor shall monitor traffic and safety conditions and maintain adequate traffic control measures during both work and non-work hours in order to maintain compliance with the requirements of this Section.

G. If a hazardous condition is observed and the Construction Manager notifies the Contractor either directly or by telephone, the Contractor shall correct the condition immediately. If the Contractor fails to correct the hazardous condition immediately, the HCRCD reserves the right to call in a local contractor to perform the necessary work needed to improve public safety. The cost incurred shall be billed to the Contractor. Should the Construction Manager point out any inadequacy of warning and protective measures, such action on the part of the Construction Manager shall not relieve the Contractor from responsibility for public safety nor abrogate his obligation to furnish and pay for these devices.

H. All construction area signs, lights, barricades, and temporary traffic control devices shall be completely removed from the roadway when not in use. Locations and methods of storing traffic control equipment adjacent to the roadway between interrupted use shall require prior approval of the Construction Manager.

I. Unless noted otherwise on the plans, the Contractor shall completely remove all temporary signs, striping and/or delineators and restore the pavement, as necessary, upon removal or relocation of any temporary traffic controls or detours constructed as part of the Work.

J. Temporary traffic control measures shall be in effect only during work hours. Normal traffic routing shall be reestablished at the end of each workday.

K. Contractor shall conduct his operation as to offer the least possible obstruction and inconvenience to the public, and he shall have under construction no greater amount of work than he can prosecute properly with due respect to the rights of the public. Contractor shall provide personal advance notice to each affected resident or business informing him of impending work and provide ample time to remove vehicles and estimated time of driveway closure. This shall be accomplished by delivering a notice to all houses or businesses to be affected by the impending work. The notice shall be typed and signed by the contractor or his designated superintendent. The format and contents of the notice shall be approved by the Construction Manager prior to commencement of the Work.

L. Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners. Convenient access to driveways, houses, and buildings along the line of the work shall be maintained, and temporary approaches to crossings or intersecting roads shall be provided and kept in good condition.

M. Whenever the Contractor’s operations create a condition hazardous to the public, furnish, erect, and maintain such fences, barricades, lights, signs and other devices as are necessary to prevent accidents or damage or injury to the public.

N. Should the Contractor appear to be neglectful or negligent in furnishing warning and protective measures as above specified, the Construction Manager may direct attention to the existence of hazard, and the necessary warning and protective measures shall be furnished and installed by the Contractor at his expense, without cost to the Owner. Should the Construction Manager point out any inadequacy of warning and protective measures, such action on the part of the Construction Manager shall not relieve the Contractor from responsibility for public safety nor abrogate his obligation to furnish and pay for these devices.
O. Under no circumstances shall access to businesses or residences be held up more than fifteen (15) minutes at any one time. The Contractor may coordinate with property and business owners to schedule work so that longer delays do not adversely affect residents or business owners to their satisfaction. In addition, Contractor shall give personal notice to all affected property owners as specified in paragraph M, hereinbefore. Before closing any street to through traffic, Contractor shall obtain prior approval from the Construction Manager seven (7) calendar days in advance of closure. Contractor shall at all times provide access to public facilities such as schools, etc. and make provisions for passage of emergency vehicles.

P. The Contractor shall keep the Ferndale Fire Department informed regarding the closure of any traveled way. At a minimum, the Contractor shall call the Ferndale Fire Department, daily to report any traveled way closure. This requirement applies immediately upon closure for that day and again immediately after removal of the closure. For closures over multiple days, the daily notification still applies. This requirement does not apply for single lane closures on multiple lane local streets.

3.02 USE OF COUNTY AND STATE RIGHT OF WAY AND PUBLIC ROADS

A. Anticipated sediment haul routes on County and State roads have been shown on the plans. If the Contractor desires an alternative haul route not shown on the plans, the Contractor shall become familiar with the paved widths of the proposed route and determine if single haul directions are necessary to prevent damage to roadway shoulders and existing pavement edges. All alternative haul routes not shown on the plans shall be pre-approved by the Construction Manager and included in the Traffic Management Plan submittal provided by the Contractor.

B. The contractor will be responsible for repair of any damage to roads resulting from the construction and hauling activities. The post-project road conditions shall meet or exceed pre-project conditions and, if necessary, be repaired by the Contractor to the satisfaction of the Construction Manager at contractor’s expense. The Construction Manager will video document the roads within the project area prior to commencement.

C. All fueling, equipment maintenance, staging and construction management shall be located outside the county road right of way. No construction materials (construction trailers, storage containers, equipment, etc.) shall be allowed within the County right of way.

D. Site visibility must be maintained at the construction entrances in conformance with county code.

E. Temporary lane closure traffic control to be consistent w/ lane closure for low volume, two lane roads per current edition of Caltrans manual of traffic controls and in conformance with the project specifications.

F. Trucks leaving the channel corridor, soil application areas or sediment management area (SMA) shall have tires free of sediment to prevent/minimize sediment from being tracked onto public roadways.

G. All public roads and bridges impacted by the construction activities shall be cleared of all sediment and debris on a daily basis or as directed by the Construction Manager.

H. All active construction areas, application areas and gravel roads shall be watered at a rate sufficient to keep soil moist and prevent wind-blown dust.
I. All trucks hauling soil, sand, and other loose materials shall be covered, or all trucks shall be required to maintain at least 2 feet of freeboard, or shall have adequate moisture content to prevent dust, or utilize some other methods that prevents generation of fugitive dust.

J. Traffic speeds on unpaved roads shall be limited to 10 miles per hour or less if posted, or as directed by the Construction Manager.

K. See Haul and Application Plan sheet for special conditions for use of Aggler Lane and Fulmor Road bridge,

END OF SECTION 01 55 50
Humboldt County Resource Conservation District
Salt River Ecosystem Restoration Project – 2019 Construction

SECTION 01 57 00
ENVIRONMENTAL REQUIREMENTS AND WATER MANAGEMENT

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Water Management (Dewatering and Clear Water Diversion)
B. Permit Compliance
C. Spill Prevention
D. Dust Control
E. Related Sections
   1. Section 01 33 00 – Submittal Procedures
   2. Appendix A – Permit Conditions
   3. Appendix B – Nesting Bird Avoidance Memo

1.02 MEASUREMENT AND PAYMENT
A. Refer to Section 01 15 00 Measurement and Payment.

1.03 SUBMITTAL REQUIREMENTS
A. Section 01 33 00 – Submittal Procedures
B. Water Management Plan

The Contractor shall submit a Water Management Plan within five (5) working days of Award
to Contract. The Plan shall describe, in detail, the Contractor’s approach to control water
during construction activities. The Plan shall cover both clear water diversion and dewatering,
which should be described separately.

1. Clear Water Diversion
   a. Surface water flows enter the mainstem of the Salt River near Highway 211
      from Williams Creek and other small drainages. The contractor may bypass
      this surface water downstream of the construction activities, however this is
      not required therefore the water could be used onsite for dust suppression
      or other construction activities.
   b. Surface water flows also enter the mainstem of the Salt River from Francis
      Creek. Francis Creek will be diverted around the Sediment Management
      Area (SMA) by others and prior to sediment removal. Sediment removal
      from the Salt River channel immediately downstream from the SMA will
      require the contractor install temporary coffer-dams and fish screens in Salt
      River to bypass Francis Creek clear water flow downstream. The contractor
      shall maintain continuous Francis Creek flow downstream at all times.
c. The Contractor shall be responsible for final design, installation, piping, pumps, electrical, fish screens, ditches and erosion control measures. The Water Management Plan shall present the result of the design effort and the anticipated execution of the work.

d. During instream construction activities that could increase turbidity levels in receiving waters, the Construction Manager will conduct sampling downstream of the activity to monitor compliance. Contractor shall modify techniques as needed to remain in compliance such that the allowable zone of dilution as stipulated in the Regional Water Quality Control 401 Water Quality Certification is not exceeded.

e. Although the Contractor is responsible for the preparation of the Water Management Plan, recommended clear water diversion approaches are provided on the project plans.

f. The Water Management Plan shall include a description of how creeks flows will be manage during seasonal baseflow and unseasonably high flow events, as well as control of tidal waters at the existing rock grade control.

2. Dewatering

a. Shallow groundwater exists beneath the project site. The Contractor shall anticipate encountering groundwater during excavation activities. This water, and other water that enters the construction area is referred to as nuisance water. The Contractor must manage nuisance water in order to conduct construction activities and comply with project permits.

b. Cofferdam will be required on the downstream end of the project site to control tidal waters from entering the channel excavation or for nuisance water from exiting the site. Potential cofferdam locations have been shown on the plans.

c. The Contractor shall be responsible for final design, installation, maintenance and removal of all dewatering systems including coffer dams.

d. The Contractor is required to meet the surface water discharge limit requirements listed below and outlined by the Regional Water Quality Control Board. The Construction Manager will conduct sampling downstream of the discharge location to monitoring compliance.

e. The Contractor is required to dewater construction areas to provide for proper excavation and filling. Although dewatering methods are left to the discretion of the Contractor, the Dewatering Plan needs to be approved by the Construction Manager prior to beginning and construction work. Water pumped from typical channel excavations is likely to contain suspended sediments or other materials, and may not be discharged directly to surface waters. Sediment controls shall be provided to remove sediments generated during the dewatering activities, pumped water shall be discharged in conformance with all applicable laws and permit requirements.

f. Potential Dewatering discharge areas include:

- Any surface water within the existing Salt River channel upstream of the existing grade control structure may be pumped, prior to channel excavation, downstream to the receiving Salt River if the Regional Water
Quality Control Board limitations are not exceeded and subject to prior approval by the Construction Manager.

- Groundwater/nuisance water encountered during channel excavation shall be spray dispersal and infiltrated within adjacent pastures of the project site, open graded areas, access roads and application areas for dust suppression where discharge waters will not impede any construction activities and subject to approval by the Construction Manager.

g. Because dewatering may occur in areas that have special status species, the Contractor will need to work with the Construction Manager and CDFW Aquatic Biologist to develop dewatering plan approaches that will allow appropriate time for surveys and relocation efforts or to develop alternatives for dewatering that would reduce the amount of “take” of a special status species.

h. The Water Management Plan shall include, but not be limited to, the methods used, schedule of operation, description of equipment such as sump pumps, baker tanks or other forms of conveyance and storage and/or filtration equipment to be used for groundwater pumping and treatment, discharge location and erosion control measures.

C. Spill Prevention and Response Plan

1. Prior to beginning of work and within five (5) working days after date of the Award of Contract, the Contractor shall prepare and submit for approval by the Construction Manager, a Spill Prevention and Response Plan to regulate the use of hazardous and toxic materials, such as fuels and lubricants for construction equipment. The Construction Manager will review, approve, and oversee implementation of the Spill Prevention and Response Plan.

2. The Contractor’s Spill Prevention and Response Plan must include: 1) spill cleanup procedures; 2) worker training; and 3) impact avoidance measures.

3. As part of the Plan, the Contractor shall indicate fueling areas for equipment and shall be a minimum of 100 feet away from coastal waters unless the Contractor receives written permission from the Construction Manager.

D. Tire Tracking Control Plan

1. The Contractor shall provide a Tire Tracking Control Plan for all trucks and construction equipment, which enter and leave the construction site and application sites during the project. Prior to any construction activities, the Contractor shall prepare and submit to the Construction Manager for review and approval.

2. The Contractor shall provide means of removing sand, mud, vegetation, rhizomes/roots, and seeds from vehicle wheels and under carriage before entering and exiting the construction site onto County and State roadways through installation of stable rock construction entrances, steel grates, tire cleaning stations and routine street sweeping/vacuuming and as necessary to maintain the roads free of sediment.

3. County and State roads utilized as part of the project shall be monitored by the Contractor on a daily basis for sediment tracking and other materials due to construction activities, and swept in a timely manner, as needed to prevent suspension of material which has a tendency to become airborne, or that could wash...
off into waterways. Roads shall be left clean at the end of each working day; cleaning operations shall not create water runoff or dust.

4. The plan shall include the location, size, maintenance and removal of such controls and designated monitoring periods and personnel to minimize sediment tracking onto County and State roads.

E. Dust Prevention Plan

1. The Contractor shall provide a Dust Prevention Plan for all construction activities that have the potential to generate visible dust. Activities including, but not limited to grubbing, stripping, excavation, hauling, travel on gravel roads, and sediment placement on application areas. Prior to any construction activities, the Contractor shall prepare and submit to the Construction Manager for review and approval.

2. At a minimum the submittal shall include the water source(s), proposed spray/application methods, frequency of watering, location, possible tarping of haul trucks, designated monitoring periods and personnel to prevent visible dust in accordance to these specifications and project permits.

1.04 GENERAL PROJECT-WIDE MEASURES

A. Contractor shall comply with all provisions of any additional federal, state and local permits necessary to complete the project.

B. The HCRCD has been issued project permits from multiple regulatory agencies including but not limited to:

1. State Lands Commission Lease,

2. North Coast Regional Water Quality Control Board 401 Water Quality Certification,

3. California Department of Fish and Wildlife Streambed Alteration Agreement,

4. County of Humboldt Conditional Use Permit,

5. County of Humboldt Grading Permit,

6. California Coastal Commission Coastal Development Permit,

7. National Marine Fisheries Service’s Biological Opinion,

8. U.S. Fish and Wildlife Service’s Tidewater Goby specific Biological Opinion,

9. U.S. Army Corps of Construction Managers 404, and

10. Final Environmental Impact Report Mitigation, Monitoring and Reporting Program

C. The Contractor, Contractor’s staff and Contractor’s subcontractors shall be fully informed of the requirements of these permits and environmental regulatory documents as well as rules, regulations, and conditions that may govern the Contractor’s operations in the project area and shall conduct the work accordingly. The Contractor shall comply with all project permit and environmental regulatory document requirements. The project permits and environmental regulatory documents have been included in the contract documents. For the Contractor’s convenience a summary of relevant conditions have been tabulated in Appendix
A. The Contractor is responsible to conduct the work in accordance with all project permits and environmental documents. Work windows specified in the various project permit conditions may conflict within one another, therefore the most restrictive windows shall be exercised and as shown in the schedule on the plans.

D. It is the responsibility of the Contractor to verify that the HCRCD has obtained all necessary federal and state permits. The Contractor is responsible for securing all County and California Department of Transportation permits, copies of which must be provided to the Construction Manager prior to construction start. Contractor will maintain a copy of all permits at the Project site.

E. The Contractor shall comply with all other permit conditions, including construction windows, restrictions on work approach related to special status species and archaeologically significant resource areas, buffer zones related to special status species, pre-construction and construction clearance surveys, daily site clearances, and construction monitoring.

F. All personnel working on site will be required to participate in a short briefing by Construction Manager and qualified biologist about the presence of federally and state-listed bird, fish, amphibian, reptile, mammalian, and Plant species at the site, 2) avoidance areas; 3) construction windows and effects on sequencing of work; 4) buffers between construction activities and breeding/nesting areas; and 5) pre-construction and construction clearance surveys and construction monitoring requirements prior to initiating and continuing work in construction work areas, including the potential necessity for trapping or seining and relocation; 6) Need to halt work if potential special status species located by Contractor or representative and notify Construction Manager before proceeding with work; 7) Requirements for minimizing other environmental impacts, including noise, traffic, etc.; and 8) The possible presence of archaeological or cultural resources and need to halt work if suspected archaeological or historic resources are found and notify the Construction Manager before proceeding with work.

G. Contractor shall ensure that all on-site workers and contractors understand and agree to observe the standards for work outlined in project permits.

H. Procedures regarding Encountering Human Remains. Human remains may be encountered, given the reported presence of prehistoric sites in the vicinity. If human graves or remains are encountered, the following measures shall be implemented:

1. The Contractor will halt the work in the vicinity

2. The County Coroner will be notified. At the same time, a qualified archaeologist will be contacted to evaluate the situation.

3. The Construction Manager will be notified.

4. If human remains are of Native American origin, the Coroner will notify the Native American Heritage Commission within 24 hours of identification (916) 653 – 4082

I. Procedures regarding Agricultural and Cultural Sensitive Resources: Surface surveys have not detected cultural materials within the limits of planned excavation. However if any items of potential cultural or archaeological significance are encountered during excavation operations, construction within this area shall be halted immediately, and the Contractor shall notify the archeologist/Construction Manager. The Contractor is advised that if any archaeological findings are discovered during construction that the monitor or archaeologist has the authority to slow or stop construction activities as they deem necessary.

J. Hazardous Materials
1. Work Cessation in the Event Suspected Hazardous Materials are Encountered. Project construction Contractors shall stop all work in the area of any suspected soil or groundwater contamination, or any unearthing of storage drums or other potential sources of hazardous materials/wastes. The Contractor shall then comply with Section B-52(k) of the General Conditions.

K. Avoidance of Impacts to Nesting Birds:

1. Nesting bird clearance surveys will be conducted by the biologist in accordance to the nesting bird avoidance survey memo (see specification appendices). All construction related disturbance will not occur until area is cleared of nesting birds and contractor shall not claim delay.

2. If surveys identify active nests, the Contractor shall cooperate with the Construction Manager and the appropriate exclusion zones are implemented around the nests and maintained until nesting has completed.

3. Scheduling of required clearance surveys: At the start of construction, the contractor will be required to provide an updated construction schedule. On a weekly basis, the contractor, Construction Manager, and biologist will meet and discuss the status of the project and updates to schedules. Clearance surveys will be scheduled with the basis of this revised weekly schedule. The contractor will not be allowed to start construction until all the approved clearance surveys have been performed. It is the responsibility of the contractor to provide the biologist an updated schedule that allows for adequate time to schedule the clearance surveyor surveys required.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION

3.01 CLEAR WATER DIVERSION

A. In scheduling diversion and dewatering activities, the Contractor shall notify the Construction Manager ten (10) working days prior to any planned diversion activity to ensure HCRCD has adequate time to schedule the appropriate staff for clearance surveys, monitoring, and relocation of native aquatic vertebrates and large invertebrates to nearby suitable habitat prior to implementation of construction. If relocation is necessary and allowable under permit conditions, the HCRCD preliminary scheduling of qualified biologists based on the construction schedule provided by the Contractor or updated construction schedules provided by the Contractor during weekly meetings. Should the Contractor wish to proceed with diversion ahead of the timeline given in the updated schedule and without 10-day notice, the Construction Manager reserve the right to deny permission to proceed until the appropriate surveys can be done.

B. Cofferdams shall be constructed of non-polluting materials including sand bags, water bags, concrete ecology blocks, rock, native soil with appropriate erosion/sediment control measures and/or plastic tarps.

C. Clear water diversions consist of a system of structures and measures to intercept clear surface water runoff upstream of the project site and transport it around the work area to a downstream discharge location with minimal degradation to water quality. Structures commonly used in clear water diversion systems include: coffer dams, berms / dikes, diversion ditches, diversion swales and / or pipes, sumps, fish screens, slope drains, rock, gravel bags, wood, plastic sheeting, sheet piles / cofferdams, filter fabric, and flumes. Contractor shall furnish all materials needed for the installation, operation and removal of the system.
D. In design, installation and maintenance of clear water diversion systems, Contractor shall comply with all other project permits and the project SWPPP.

E. Contractor shall be responsible for applying for and obtaining county encroachment permits necessary for the installation and maintenance of clear water diversion system.


3.02 DEWATERING

A. Dewatering locations must be approved by the Construction Manager or located in accordance to the Dewatering Plan. Dewatering stations should be established consisting of a large screened drum, container, or similar structure that prohibits fish and vegetation from being entrained in the diversion pipe/hose. The screening size and mechanism shall be approved by the Construction Manager and the aquatic biologist prior to installation and use. Screens at the suction end of all dewatering pump intakes are required to be equipped with a maximum screen size of 3/32-inch opening mesh screen or size meeting CDFW and NOAA criteria, whichever is smaller. Screens shall be regularly checked and cleaned of debris to permit free flow of water. All work areas to be dewatered shall be cleared by the aquatic biologist prior to installation of ditch diversion station structures/equipment. The Contractor is not allowed to make modifications to the ditch bank or bed during installation and use of the ditch water diversion stations without prior authorization from Construction Manager. Contractor shall provide the necessary pumps to extract water from ditches to water trucks.

B. Measures to reduce potential impacts, such as screening pump intake areas, will be maintained by Contractor on a daily basis to ensure proper operation. Dewatering shall continue throughout excavation activities. The Contractor shall coordinate with the Construction Manager prior to initiating dewatering activities so the site can undergo any necessary environmental clearance.

C. Temporary dewatering structures and activities are anticipated over the life of the construction project. Any areas affected by dewatering structures/activities will be returned to pre-project condition by Contractor as part of project close-out.

D. Contractor shall design pump intakes and outlets to minimize turbidity and the potential to wash contaminants into adjacent creeks or wetlands.

E. A dewatering structure should be sized to allow water to flow through any outlet filtering media without overflowing the structure. An energy dissipater may be needed to prevent erosion at the outlet.

F. Any turbid water pumped by Contractor from the work site itself, to maintain it in a dewatered state, shall be disposed of in an approved location, water truck, sediment settling tank, or equivalent, where it will not drain directly into any stream channel or tidal waters. The turbidity control methods need to be approved by the Construction Manager prior to implementation.

G. During excavation of mainstem Salt River, in lieu of excavating in the wet, the Contractor may want to dewater the channel, generating turbid water. One potential dewatering approach of the Salt River channel is to direct turbid water via a detention and sediment control system in a downstream direction. The turbidity conveyance system needs to be sized to promote low velocity flow, the settling of solids, and stay confined to the boundaries of the Salt River excavation. Water may be discharged into the receiving water of Salt River if the NCRWQC 401 and SWPPP regulations are not exceeded.
H. The Contractor shall refuel pumps in areas a minimum of 100-feet away from coastal waters and where approved by the Construction Manager. The Contractor shall place fuel absorbent mats under pumps while refueling.

I. Once construction is completed, the dewatering facilities are to be removed by the Contractor. Sediment control devices, including perimeter erosion controls, are to remain in place until all disturbed areas are stabilized in accordance with the SWPPP and the Construction Manager approves their removal.

J. At the start of Salt River channel excavation, Contractor to install cofferdam at the downstream end of the project reach as needed and should span the width of the active channel. As excavation progresses, Contractor shall install additional cofferdams throughout project reach as needed to best manage and minimize construction dewatering.

3.03 AIR QUALITY AND DUST CONTROL

A. The Contractor shall adhere to all project permits and shall utilize BMPs to minimize fugitive dust generation and assure compliance with North Coast Unified Air Quality Management District Rule 104 Section 4.0 regarding the control of fugitive dust.

B. Unimproved access or unpaved haul roads, material stock piles, excavated and graded areas, and areas of exposed soil on the construction site shall be sprinkled with water or otherwise treated to fully suppress dust when and where dust becomes a problem. Sources of water for dust control are provided above.

C. At the discretion of the Construction Manager, grading and construction may be prohibited during periods of high winds (>15 mph), which have the potential to result in the generation of windblown dust and sediment not reasonably controllable with standard watering techniques.

D. When not in use or unattended, construction equipment and vehicles will be shut down, locked up, and not left idling.

E. Contractor shall be required to minimize idling time to 5 minutes for all trucks and maintain properly tuned equipment.

F. Equipment and vehicles shall also be tuned and maintained in accordance with manufactures’ specifications to avoid excessive emissions.

G. All equipment shall operate with factory-equipped mufflers.

H. Water active earthwork areas and staging areas as needed for dust control. All active construction areas and sediment application areas shall be watered at a rate sufficient to keep soil moist and prevent formation of wind-blown dust.

I. Exposed stockpiles of dirt, sand, and similar material shall be enclosed, covered, and/or watered daily, or treated with approved non-toxic soil binders as necessary to prevent generation of fugitive dust.

J. Contractor shall use water trucks or spray from hoses to control dust created by outdoor work operations during entire period of the Contract as directed by Construction Manager and stipulated in Specifications; Contractor shall satisfactorily control dust created by operations to the satisfaction of the Construction Manager.

END OF SECTION 01 57 00
SECTION 01 71 23.16
CONSTRUCTION SURVEYING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Qualified services.
B. Lines and grades.
C. Survey of layout and performance.
D. Surveying accuracy and tolerances in setting survey stakes.

1.02 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.03 QUALIFIED SERVICES

A. Surveying services and field engineering services shall be performed under the direct supervision of a professional land surveyor or civil engineer currently licensed or registered in the State of California. A civil engineer providing field surveying shall have been registered prior to 1982 or have a current professional land surveyors license in the State of California.

1.04 LINES AND GRADES

A. Only such primary control lines, monuments, and bench marks will be set by the Construction Manager as the Construction Manager determines to be necessary to control establishment of the lines and grades required for completion of the Work. In general, these will consist of the primary horizontal and vertical control points indicated on the Contract Drawings. Work points shall be established by the Contractor for all major structures and creek alignments.

B. Contractor must independently verify the primary horizontal and vertical control and inform Construction Manager of any significant differences between published values and found values within 30 days of Notice to Proceed.

C. Primary control monuments currently on site shall be carefully preserved by the Contractor. In case such monuments are destroyed or damaged, they will be replaced at the Construction Manager's earliest convenience. The Contractor will be charged for the cost of replacing or restoring monuments destroyed or damaged by the Contractor's operations. This charge will be deducted from any monies due or to become due the Contractor.

D. The Contractor shall temporarily suspend work at such points and for such reasonable times as the Construction Manager may require for resetting monuments, and the Contractor will not be entitled to any additional compensation or extension of time therefore.

E. All other stakes or markers required to establish the lines and grades required for the completion of the Work shall be the responsibility of the Contractor.

1.05 SURVEYS FOR LAYOUT AND PERFORMANCE
A. Surveying Requirements: Perform all surveys for layout and performance of the Work, reduce the field notes, and make all calculations and drawings necessary to carry out such work. The Contractor shall check the relative positions of all monuments and benchmarks to be used and shall report any damaged or out-of-position monuments to the Construction Manager at once. The Contractor shall check such relative positions each time the Contractor uses such monument or benchmark.

B. Datum: The Contractor shall be responsible for correctly locating all lines and grades and for performing all measuring as required for the construction and completion of the Work from established reference points and information is shown on the Contract Drawings.

C. Equipment and Personnel: The Contractor's instruments and other survey equipment shall be accurate, suitable for the surveys required in accordance with recognized professional standards, and in proper condition and adjustment at all times.

D. Field Notes and Records: Furnish the original pages of all survey records to the Construction Manager at intervals required by the Construction Manager. Furnish each field notebook to the Construction Manager when filled or completed.

E. Use by the Construction Manager: The Construction Manager may at any time use line and grade points and markers established by the Contractor. The Contractor's surveys are a part of the work and may be checked by the Construction Manager at any time. The Contractor shall be responsible for any lines, grades, or measurements which do not comply with specified or proper tolerances, or which are otherwise defective, and for any resultant defects in the work. The Contractor shall conduct resurveys or check surveys to correct errors indicated by review of the field notebooks or by check surveys performed by the Construction Manager.

F. The Contractor shall start work only after staking for the affected work is accepted by the Construction Manager.

G. The construction survey and staking work may be spot-checked by the Construction Manager for accuracy, and unacceptable portions of work may be rejected. The Contractor shall resurvey rejected work, and correct work that is not within the tolerances specified above. Acceptance of the construction staking does not relieve the Contractor of responsibility for correcting errors discovered during the work and for bearing all additional costs associated with the error.

H. The Contractor shall remove and dispose of all flagging, lath, stakes, and other staking material after the project is complete unless the Construction Manager specifies otherwise.

I. The Contractor shall perform all survey, staking, recording of data, and calculations as necessary to construct the project. Reset stakes as many times as necessary to construct the work.

1.06 SURVEYING ACCURACY AND TOLERANCES IN SETTING SURVEY STAKES

A. Surveying Accuracy: Control traverse field surveys and computations, including surveys of main control lines to determine horizontal and vertical alignment of major channel components, shall be done to maximum 0.5 inch or better accuracy.

B. Tolerances: The tolerances generally applicable in setting survey stakes shall be as set forth above. Such tolerances shall not supersede stricter tolerances required by the Contract Drawings or Specifications, and shall not otherwise relieve the Contractor of responsibility for measurements in compliance therewith.
PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION [NOT USED]

END OF SECTION 01 71 23.16
SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Requirements preparatory to final inspection.
B. Final inspection.
C. Acceptance of the Work and final payment.

1.02 RELATED SECTIONS
A. See General Contract

1.03 Measurement and Payment
A. Refer to Section 01 15 00 Measurement and Payment.

1.04 REQUIREMENTS PREPARATORY TO FINAL INSPECTION
A. The Contractor shall request a preliminary final inspection to determine the state of completion of the Work.
B. The request shall be made in writing, addressed to the Construction Manager, at least seven calendar days in advance of the requested date of the preliminary inspection.
C. The Construction Manager will perform the preliminary inspection within three days of the requested date.
D. Prior to the requested date of the preliminary inspection, the Contractor shall perform or provide the following, as applicable:
   1. Temporary facilities, except as may be required for punch list work, shall be removed from the site.
   2. The site and all applicable appurtenances and improvements shall be cleaned as specified in these specifications.
   3. Record drawings and specifications shall be completed and submitted to the Construction Manager as specified below.
   4. Guaranties and warranties shall be submitted to the Construction Manager, as specified in the General Conditions and various sections of the Specifications.
E. The Contractor shall be represented by its principal superintendent and such Subcontractors and Suppliers as may be necessary to answer the questions of the HCRCD inspection team.
F. Certain elements of the Work may be scheduled separately at appointed times in order to
keep the preliminary inspection more focused and the number of persons in the HCRCD inspection team to a minimum.

G. From the information gathered from this inspection, the Construction Manager will prepare a punch list of work to be performed, corrected, or completed.

H. All work on the punch list shall be completed by the Contractor prior to requesting the final inspection.

1.05 SUBMITTALS

A. The Contractor shall provide the Construction Manager with Project Record Drawings in hard copy, consisting of clear and legible delineations and notations on existing design sheets.

B. Guarantees and Bonds

C. Spare parts and material

D. Closeout Reports

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION

3.01 SITE CLEANUP

A. Before scheduling the final inspection, the Contractor shall remove all tools, equipment, surplus materials, construction debris, and rubbish. The Contractor shall replace or refinish fencing, gates, or other infrastructure that are damaged due to work of this contract to previous condition as directed by the Construction Manager. At time of final inspection, the project sites shall be thoroughly clean and ready for use.

B. All access roads utilized during construction shall be rehabilitated as necessary to pre-project conditions, or as directed by the Construction Manager. All access road rehabilitation work needs to be approved by the Construction Manager prior to implementation.

3.02 PROJECT RECORD DRAWINGS

A. The Contractor shall maintain one complete full-size set of contract drawings and one full-size set of vendor-supplied drawings that comply with CDP condition 2 (A) 5. The Contractor shall clearly mark changes, deletions, and additions using the following drafting standards to show actual construction conditions. The Contractor shall show additions in red, deletions in green and special instructions in blue.

B. The Contractor shall keep record drawings current and make record drawings available to the Construction Manager for inspection at the time of progress payment requests. If project record drawings are not current, the Construction Manager may retain the progress payment.

C. On completion of the total project, the Contractor shall submit complete record drawings and include all shop drawings, sketches, and additional drawings that are to be included in the final set, with clear instructions showing the location of these drawings.
3.03 CLOSEOUT SUBMITTALS

A. The Contractor shall submit the following materials to the Construction Manager before final inspection request:

1. Project Record Drawings: As specified above.
2. Guarantees and Bonds: As specified in individual sections.

B. Completion of Work Final Reports per Humboldt County Code Section 331-14 I.1. The following will be provided by the HCRCD’s representative:

1. Final Reports: Upon completion of the permitted rough grading work and at the final completion of the work, final reports and drawings and supplements thereto are required for engineered grading, or when professional inspection is performed for regular grading, as applicable. (Ord. 2275, OS/28/2002)

2. Final Reports: Upon completion of the permitted rough grading work and at the final Notification of Completion. The permittee shall notify the building official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan, and the required reports have been submitted. (Ord. 2275, OS/28/2002)

3.04 FINAL INSPECTION

A. When all requirements of the above prepared punch list have been completed, the Contractor shall request the final inspection to determine eligibility for issuance of the Certificate of Completion.

B. The request shall be made in writing, addressed to the Construction Manager, at least seven calendar days in advance of the requested date of the final inspection.

C. The Contractor shall be represented by its principal superintendent and such Subcontractors and Suppliers as may be necessary to verify the completion of the Work including punch list items.

D. Depending on the extensiveness of the punch list items, certain elements of the Work may be scheduled separately for final inspection at appointed times.

3.05 ACCEPTANCE OF THE WORK AND FINAL PAYMENT

A. The Construction Manager will accept the Work upon completion of completion punch list items.

B. Acceptance of the Work will be made in accordance with the General Conditions, Final Inspection and Acceptance of All or a Portion of the Work, of the General Conditions. Final payment will be made in accordance with the Final Payment section of the General Conditions.
SEASON 02 25 00
SHORING AND TRENCH SAFETY

PART 1 GENERAL

1.01. SUMMARY OF SECTION

A. Principle items specified herein are:

1. Shoring required for general safety, worker protection and protection of adjacent property from the hazards of caving ground.
2. Trench excavations
3. Structural excavations

1.02. MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.03. RELATED SECTIONS

Related work specified in other sections:

A. General Conditions
B. Section 31 20 00 - Earthwork

1.04. REFERENCED CODES AND SPECIFICATIONS

The following standards apply:

A. Cal/OSHA, State of California Administrative Code, Title 8; Industrial Relations, Chapter 4, Subchapter 4, Construction Safety Orders.
B. Occupational Safety and Health Administration (OSHA) Regulations, 29 CPR Part 1926 Subpart P - Excavations.
C. Where any of these are in conflict, the more stringent requirements shall be adhered to.

1.05. CONTRACTOR'S RESPONSIBILITIES FOR SAFETY

A. The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons (including employees) and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours.

B. The duty of the HCRCD and Construction Manager to conduct construction review of the Contractor's performance is not intended to include a review or approval of the adequacy of the Contractor's safety supervisor, the safety program, or any safety measures taken in, on, or near the construction site.

C. The HCRCD and Construction Manager will review the submittal of the Contractor's proposed shoring system to verify the general scope of the Work, to determine that qualified...
professional engineering services are used and to determine that appropriate construction techniques are proposed for use. This review shall not in any way be construed to relieve the Contractor from sole responsibility for the design and safety of such shoring.

D. The Contractor shall appoint a supervisory employee who shall be responsible for determining which of the engineered shoring systems (if alternates are provided) shall be used depending on local soil type, water table, etc.

E. Contractor’s attention is drawn to the Geotechnical Report.

1.06. PERMIT

A. For trenches or excavations five feet or more in depth, obtain from the State Division of Industrial Safety a permit for such excavation; submit a copy of the permit to the Engineer, prior to initiating any work requiring said permit.

1.07. SAFETY ORDERS

A. The Contractor shall have at the work site, copies or suitable extracts of the Construction Safety Orders of Cal-OSHA.

B. All work shall comply with the provisions of these and all other applicable laws, ordinances and regulations.

1.08. SUBMITTALS

Submit the following in accordance with Section 01 33 00 – Submittal Procedures:

A. Trench Safety Plan:

1. For trenches or excavations five feet or more in depth, the Contractor shall submit to the Construction Manager a detailed plan design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazards of caving ground. The design shall be coordinated with other relevant specification sections. Such plans shall be submitted at least ten (10) working days before the Contractor intends to begin trenching or excavation work. Submittal shall be for trench work and work at vaults, and other cuts 5 feet or more in depth. NOTE: Water table and moisture content will vary with rainfall and cause varying soil strength.

2. Groundwater may be present in trench backfill of existing utilities. Contractor shall design shoring and dewatering systems to mitigate against washout of materials from existing utility trenches. Reconstruction of the structural section of the road will be completed at the Contractor’s expense.

3. The trench safety plans shall be prepared, stamped and signed by a civil or structural engineer registered in California. Stamped and sealed copies of calculations necessary to obtain approval of the systems shall be submitted also. These plans shall be available at all times at the job site.

4. Nothing herein shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders of the Division of Industrial Safety.

PART 2 PRODUCTS (NOT USED)
PART 3 EXECUTION

3.01. REMOVAL OF SHORING

A. Removal of shoring shall not damage pipe or structures, cause settlement or heave the ground surface, or produce vibrations that could damage adjacent pipe or structures.

B. Minimum compaction requirements must be met after shoring is removed.

PART 4 TESTING

No field testing is required.

END OF SECTION 02 25 00
 SECTION 02 27 00
EROSION CONTROL AND SWPPP COMPLIANCE

PART 1    GENERAL

1.01    GENERAL
A. The work of this section consists of furnishing and installing temporary erosion and sediment control measures necessary to prevent, control and abate water, mud, and erosion damage to public and private property as a result of the construction project.
B. Implementing measures to prevent storm water pollution during construction activities, in accordance with federal, state, and local regulations, and in accordance with the Storm Water Pollution Prevention Plan (SWPPP) prepared for this project.
C. Minimize the extent of all ground disturbing activities and avoid work in any drainage channels if at all feasible.
D. Heavy equipment shall be placed outside of drainage channels except when absolutely necessary to perform the work.
E. Upon completion of construction activities, natural drainage shall be restored and re-contoured as nearly as practicable to pre-project conditions, and shall match adjacent natural channel contours.

1.02    RELATED SECTIONS
A. Related work specified in other sections:
   1. Section 31 20 00 – Earthwork
   2. Section 01 57 00 – Environment Requirements and Water Management
   3. Section 32 92 19 – Seed and Mulch
   4. Appendix A – Permit Conditions

1.03    MEASUREMENT AND PAYMENT
A. Refer to Section 01 15 00 Measurement and Payment.

1.04    SUBMITTALS
A. Mill Certificate or Affidavit. A mill certificate or affidavit shall be provided attesting that the fabric and factory seams meet chemical, physical, and manufacturing requirements specified below.

1.05    REFERENCES
A. Stormwater Pollution Prevention Plan (SWPPP)
B. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
C. American Society for Testing and Materials (ASTM)


1.06 EROSION AND SEDIMENT CONTROLS

A. The controls and measures required by the Contractor are described but not limited to below.

1. Structural Practices: Structural practices shall be implemented to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural practices shall be implemented in a timely manner during the construction process to minimize erosion and sediment runoff. Structural practices shall include the following devices.

   a. Silt Fences. The Contractor shall provide silt fences (if shown on the plans) as a temporary structural practice to minimize erosion and sediment runoff. Silt fences shall be properly placed and installed to effectively retain sediment immediately after completing each phase of work where erosion would occur in the form of sheet and rill erosion (e.g., clearing and grubbing, trench excavation, backfilling, and grading). Silt fences shall be installed in the locations as directed by the Construction Manager. Final removal of silt fence barriers shall be upon approval by the Construction Manager.

   b. Fiber Roles (sediment logs or wattles): Contractor shall provide fiber roles as temporary structural practice to minimize erosion and sediment runoff. Fiber roles shall be properly placed and installed to effectively retain sediment immediately after completing each phase of work (e.g., clearing and grubbing, trench excavation, backfill, and grading) in each independent runoff area (e.g., after clearing and grubbing in an area between a ridge and drain, fiber roles shall be placed as work progresses; fiber roles shall be removed/replaced/relocated as needed for work to progress in the drainage area). Final removal of fiber role barriers shall be upon approval by the Construction Manager. Fiber Roles shall be installed in accordance to the Plans, SWPPP and as directed by the Construction Manager.

   c. Seed and Mulch: per plans and specifications.
1.07 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. A Stormwater Pollution Prevention Plan (SWPPP) has been developed for this project following Order No. 2009-0009-DWQ and NPDES No. CAS0000002. A Project Risk Determination has been completed for the Phase 2 project and yielded a Risk Level 2.

B. The Contractor will be responsible to comply with the regulations and implement the BMPs presented in the SWPPP. The Contractor is responsible for complying with the requirements of the SWPPP including but not limited to: implementation and maintenance of BMPs, performing inspections and correcting any deficiencies identified by the Construction Manager or the SWRCB at the Contractors expense. In addition, the Contractor shall (at Contractors expense) update the SWPPP to reflect modifications to stormwater control measures made in response to a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants from the project site that has not been previously addressed in the SWPPP. This work is necessary to control water pollution, soil erosion and siltation through the use of BMPs specified in the SWPPP. The Construction Manager will submit the Notice of Intent (NOI) and pay the permit fee.

C. The SWPPP must remain on site for the full duration of the work. The Contractor shall review and abide by the instructions contained in the SWPPP. The Construction Manager will be responsible for the stormwater sampling and SMARTs database reporting. The Contractor shall adjust BMPs to maintain in compliance. The Contractor shall be liable for any fines issued to the project or to the HCRCD by the SWRCB for noncompliance. The contractor shall hold the HCRCD harmless for any fines or sanctions caused by the Contractor’s actions or inactions regarding compliance with the permit or erosion control provisions of the Contract Documents and SWPPP.

PART 2 PRODUCTS

2.01 PER THE SWPPP

2.02 SILT FENCES

A. Ultraviolet stabilized woven polypropylene face. The filter fabric shall meet the following requirements:

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Test Procedure</th>
<th>Required Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grab Tensile</td>
<td>ASTM D 4632</td>
<td>160 lbs. min.</td>
</tr>
<tr>
<td>Elongation (%)</td>
<td>ASTM D 1682</td>
<td>25 % max.</td>
</tr>
<tr>
<td>Mullen Burst Strength, psi, min.</td>
<td>ASTM D 3876</td>
<td>350</td>
</tr>
<tr>
<td>Equivalent Opening Size, max.</td>
<td>US Standard Sieve</td>
<td>30-70</td>
</tr>
<tr>
<td>Ultraviolet Radiation Resistance, %</td>
<td>ASTM D 4355</td>
<td>70</td>
</tr>
<tr>
<td>Weight oz./sq. yd.</td>
<td>ASTM D 3776</td>
<td>4</td>
</tr>
</tbody>
</table>

B. Mill Certificate or Affidavit. A mill certificate or affidavit shall be provided attesting that the fabric and factory seams meet chemical, physical, and manufacturing requirements specified above.
C. The Contractor may use either wooden stakes or steel posts for silt fence construction. See plans for size.

2.03 FIBER ROLES (SEDIMENT LOGS OR WATTLES)

A. Composed of bio-degradable materials.

B. The Contractor shall use wooden stakes for fiber role installation. Wooden stakes utilized for fiber role installation, shall have a minimum cross section of 1 inch by 2 inches, or as suggested by the fiber role manufacturer.

PART 3 EXECUTION

3.01 PER THE SWPPP

3.02 SPECIAL CONSTRUCTION REQUIREMENTS

A. It is the responsibility of the Contractor to minimize erosion and prevent the transport of sediment to the adjacent stream and sensitive areas.

B. At a minimum, the Contractor shall employ best management practices (BMPs) as described in the SWPPP.

C. If discrepancies occur between these specifications, plans, SWPPP, material referenced herein or manufacturers recommendations, then the most protective shall apply.

D. It is the responsibility of the Contractor to fix any erosion, sediment, pollution, & waste control deficiencies identified by the Construction Manager.

E. Other selected disturbed earth areas shall be treated using appropriate erosion control measures per plans, specifications and SWPPP.

F. Additional erosion/sediment BMPs beyond what is shown on the plans and SWPPP may be required to comply with project permits and it shall be the responsibility of the contractor to implement additional BMPs as needed and as directed by the construction manager at no additional expense to the HCRCD.

G. Changes to the SWPPP may be made to respond to field conditions. Changes shall be noted on the plan when made.

H. At the conclusion of construction of certain task elements, the contractor will be required to implement additional post-construction erosion control measures where specified in the plans or where directed by the Construction Manager in order to protect natural resources. These measures include, but are not limited to, installing seed, weed-free straw mulch and tackifier, weed-free straw wattles or fiber roles, and erosion control blanket consistent with the SWPPP.

I. Contractor shall comply with the project Stormwater Pollution Prevention Plan (SWPPP) as required to ensure that water quality in the Salt River and tributaries is not degraded during construction activities and until the disturbed areas are stabilized and erosion potential is minimized. The SWPPP details erosion and sediment BMPs that will be implemented to prevent entry of storm water runoff into the excavation site, entrainment of excavated contaminated materials leaving the site, and entry of polluted storm water runoff into coastal waters during transportation and storage of excavated materials. BMPs that the Contractor shall implement as part of the SWPPP include:
1. Preservation of existing vegetation shall occur to the maximum extent practicable.

2. Coffer dams or other temporary fish barriers/water control structures shall be placed in the channel during low tide, and shall only be removed during low tide (if possible), after work is completed.

3. Because coffer dams shall be installed and the channel will be dewatered prior to excavation after fish removal efforts have been completed, equipment shall not be operated directly within tidal waters or stream channels of flowing streams.

4. Appropriate energy dissipation devises will be utilized to reduce or prevent erosion at discharge end of dewatering activity.

5. Silt fences and or turbidity curtains shall be deployed as necessary during installation of selected coffer dams and pursuant to the SWPPP.

6. Sediment sources shall be controlled using materials and methods specified in the SWPPP.

7. Erosion control may include seeding, mulching, erosion control blankets, plastic coverings, and geotextiles that shall be implemented after completion of construction activities and pursuant to the SWPPP.

8. Stockpiled material will be covered or watered to eliminate excessive dust, as necessary.

9. Fiber rolls or similar products will be utilized in appropriate locations to reduce sediment runoff from disturbed soils, as necessary.

10. Excess water shall be pumped into the surrounding fields to prevent sediment-laden water from entering the stream channel.

11. Appropriate energy dissipation devises shall be utilized to reduce or prevent erosion at dewatering pipes/hose outfalls.

12. Turbidity and pH monitoring (as required in the monitoring plan of the SWPPP and the NCRWQCB 401 Water Quality Certification) will be conducted by the Construction Manager in the Salt River during channel activities and throughout the site stabilization period to ensure that water quality is not being degraded. Turbid water shall be contained and prevented from being transported in amounts that are deleterious to fish, or in amounts that could violate state pollution laws. Silt fences or water diversion structures shall be used to contain sediment. If sediment is not being contained adequately, as determined by visual observation, the activity shall cease.

13. Construction materials, debris, and waste will not be placed or stored where it can enter into or be washed by rainfall into waters of the U.S./State.

14. Appropriate vehicle storage, fueling, maintenance and cleaning areas shall be designated and maintained to prevent discharge of pollutants. Upland areas will be used for equipment refueling. If equipment must be washed, washing shall occur where wash water cannot flow into wetlands or waters of the U.S./States.

15. Operators of heavy equipment, vehicles, and construction work will be instructed to avoid sensitive habitat/resource areas. To ensure construction occurs in the designated areas and does not impact environmentally sensitive areas, the
boundaries of the work area shall be fenced or marked with flagging by the Contractor.

16. Equipment when not in use shall be stored outside of the slough channel and outside areas of tidal influence.

17. All construction equipment will be maintained to prevent leaks of fuels, lubricants or other fluids into the slough. Service and refueling procedures will not be conducted where there is potential for fuel spills to seep or wash into the slough.

18. Stationary equipment such as motors, pumps, generators, compressors, and welders, located within a dry portion of the stream channel or adjacent to the stream channel shall be positioned over drip pans. The Contractor shall have spill containment materials located at the site, with operators trained in spill control procedures.

19. Extreme caution will be used when handling and/or storing chemicals and hazardous wastes (e.g., fuel and hydraulic fluid) near waterways, and any and all applicable laws and regulations will be followed. Appropriate materials shall be on site to prevent and manage spills. Contractor shall comply with the SWPPP, Emergency Spill Plan and Emergency Spill Response Plan and other relevant permit conditions.

20. Covered and secured storage areas for potentially toxic materials shall be provided. All hazardous material containers should be placed in secondary containment.

21. All construction vehicles or equipment shall be checked and maintained daily to prevent leaks of fuels and/or lubricants.

22. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, oil or petroleum products, other organic material or earthen material from any construction related activity shall be allowed to enter into the active salt river or be placed where it may be washed by rainfall into the salt river or any waterways.

23. Soil and material stockpiles shall be properly protected to minimize sediment and pollutant transport from the construction site.

24. If, at any time, an unauthorized discharge of debris to surface water occurs, or any water quality problem arises, the associated project activities shall cease immediately until adequate BMPs are implemented, including stopping work. The regional water board will be notified by the construction manager promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.

25. The plans may not cover all the situations that arise during construction due to unanticipated field conditions. Variations may be made to the plan in the field subject to the approval of or at the direction of the Construction Manager.

26. Prior to final acceptance all areas of the site will be vegetated or permanently stabilized and all temporary sediment control measures shall be removed.

3.03 INSTALLATION OF SILT FENCES

A. Silt fences shall extend a minimum of 16 inches above the ground surface and shall not exceed 34 inches above the ground surface. Filter fabric shall be from a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter fabric shall be spliced together at a support post, with a minimum 6 inch overlap, and securely
sealed. A trench shall be excavated approximately 4 inches wide and 4 inches deep on the upslope side of the location of the silt fence. The 4-inch by 4-inch trench shall be backfilled and the soil compacted over the filter fabric. Silt fences shall be removed upon approval by the Construction Manager.

B. Maximum spacing for post supports shall be 6 feet on center. Posts shall be buried 12 inches minimum and shall not exceed 36-inches above the ground surface.

3.04 INSTALLATION OF FIBER ROLLS (SEDIMENT LOGS OR WATTLES)

A. Fine grade the subgrade by hand, dressing where necessary to remove local deviations and to remove larger stones or debris that will inhibit intimate contact of the fiber roll with the subgrade. Prior to roll installation, contour a concave key trench 2 to 4 inches deep along the proposed installation route. Soil excavated in trenching should be placed on the uphill or flow side of the role to prevent water from undercutting the roll.

B. Place fiber rolls into the key trench and stake on both sides of the roll within 6 feet of each end. Spacing for stakes shall be 3 to 5 feet. Stakes are typically driven in on alternating sides of the roll. Stakes shall be buried 12 inches minimum.

C. When more than one fiber roll is placed in a row, the rows should be abutted securely to one another to provide a tight joint, not overlapped. Fiber rolls shall be placed in a single row, lengthwise on the contour, with ends of adjacent rolls tightly abutting one another.

3.05 MAINTENANCE

A. The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures.

1. Silt Fence Maintenance. Silt fences shall be inspected in accordance with paragraph INSPECTIONS. Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the fabric on a silt fence decompose or become ineffective, and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed when deposits reach one-third of the height of the barrier. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be re-vegetated.

2. Fiber Roll Maintenance. Fiber roll barriers shall be inspected in accordance with paragraph INSPECTIONS. Close attention shall be paid to the repair of damaged rolls, end runs and undercutting beneath rolls. Necessary repairs to barriers or replacement of rolls shall be accomplished promptly. Sediment deposits shall be removed when deposits reach one-half of the height of the barrier. Roll rows used to retain sediment shall be turned uphill at each end of each row. When a fiber roll barrier is no longer required, it shall be removed. The immediate area occupied by the roll and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be re-vegetated.
3.06 INSPECTIONS AND ACCEPTANCE

A. General. The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and area where vehicles exit the site, at least once every seven (7) calendar days, within two (2) calendar days of forecasted rains, and within 24 hours of the end of any storm that produces 0.5 inches or more rainfall at the site and in accordance to the SWPPP.

B. Inspection Details. Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Discharge locations or points shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.

C. Inspection Reports. As required per the SWPPP.

D. Acceptance: Final stabilization as defined by the SWPPP and acceptance of the Notice of Termination (NOT) by the State Water Resources Control Board.

END OF SECTION 02 27 00
SECTION 06 13 13
LOG STRUCTURES

PART 1 GENERAL

1.01 GENERAL

A. This work includes selecting appropriate logs from the onsite stockpiles made available by the HCRCD, hauling to the installation site, and furnishing all labor, supervision, materials (including additional logs), equipment, and incidentals necessary to safely perform all excavations, grading, backfilling, and compaction associated with installation of Log Structures indicated on the Contract Drawings or specified herein.

B. Minimize the extent of all ground disturbing activities and avoid Work in any drainage channels if at all feasible.

C. Heavy equipment shall be placed outside of drainage channels except when absolutely necessary to perform the Work.

D. Upon completion of construction activities, natural drainage shall be restored and re-contoured as nearly as practicable to pre-project conditions, and shall match adjacent natural channel contours.

E. Unless noted otherwise on the plans, all remaining logs not used shall remain in the current stockpile locations.

F. Where wood type for log structures is specified as conifer, the wood shall be Douglas fir or Redwood.

1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS:

A. Section 31 20 00 Earthwork

1.03 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.04 SUBMITTALS

A. Contractor furnished logs shall be inspected by the HCRCD for approval prior to delivery to the project site.

B. Manufacture’s specifications and operating loads for equivalent soil anchor and appurtenance substitutes if Manta Ray anchors are not used.
1.05 WOOD STRUCTURES

A. Wood structures of the types below shall be installed at the locations specified.
   1. Salt River Guide Logs
   2. Salt River LWD Constrictor
   3. Avian Habitat
   4. Salt River Log Cover Structure
   5. Alcove Log Cover Structure

B. Wood structure anchoring of the types below shall be installed as specified:
   1. Log to Log Anchoring
   2. Rebar Friction Anchoring
   3. Soil Anchoring

PART 2 PRODUCTS

2.01 SALT RIVER GUIDE LOGS

A. Guide Logs shall consist of one (1) Guide Log.

B. Guide Logs shall be conifer logs with size shown on the plans and provided by the contractor.

C. Log length identified on plans shall not be accomplished with joining of multiple logs.

2.02 SALT RIVER LWD CONSTRICTOR

A. LWD Constrictors shall consist of root wads.

B. LWD Constrictors shall be conifer logs with size shown on the plans and provided by the contractor.

C. Soil Anchoring shall conform to Contract Documents.

2.03 SALT RIVER LOG COVER STRUCTURE

A. Log Constrictor structures shall consist of three (3) Cover Logs and Three (3) Log Piles.

B. Cover Logs and Pile Logs shall be conifer logs with size shown on the plans and provided by the contractor.

C. Pile Logs shall have bark removed.

D. Log-to-Log anchoring shall conform to Contract Documents.
2.04 ALCOVE LOG COVER STRUCTURE

A. Log Constrictor structures shall consist of three (3) Cover Logs and Three (3) Log Piles.
B. Cover Logs and Pile Logs shall be conifer with size shown on the plans and provided by the contractor.
C. Pile Logs shall have bark removed.
D. Log-to-Log anchoring shall conform to Contract Documents.

2.05 AVIAN HABITAT LOGS

A. Avian Habitat Logs shall consist of a single log.
B. Avian Habitat Logs shall be alder or willow and salvaged from site clearing.

2.06 BRUSH FOR PINNING

A. Brush pinning as shown on the plans shall consist of NON-WILLOW tree limbs, branches, and rootwads salvaged as part of site clearing or imported. The minimum length of slash shall be 10 feet.

2.07 LOG TO LOG ANCHORING

A. Threaded rebar, washers, and hex-nuts shall be galvanized steel.
B. Threaded rebar shall be a minimum of 1-inch thick and shall have a corresponding bolt. Washer Plates shall be min 4-inch x 4-inch x 3/8 or 5/16 -inch thick.
C. Cable shall be min ½-inch galvanized steel wire rope. Wire rope clamps shall be ½-inch galvanized drop forged steel.

2.08 REBAR FRICTION ANCHORS

A. Threaded rebar, washer and hex-nuts shall be galvanized steel.
B. Threaded rebar shall be a minimum of 1-inch thick and shall have corresponding bolt. Washer Plates shall be min 4-inch x 4-inch x 3/8 or 5/16 -inch thick.

2.09 SOIL ANCHORING

A. Threaded rebar, washer and hex-nuts shall be galvanized steel.
B. Threaded rebar shall be a minimum of 1-inch thick and shall have a corresponding bolt. Washer Plates shall be min 4-inch x 4-inch x 3/8 or 5/16 -inch thick.
C. Soil Anchors shall consist of an Earth Anchor Manta Ray MR-2 anchor or approved equivalent, a galvanized steel 3.5 feet long 5/8-inch diameter Anchor Rod, and galvanized steel a 5/8-inch singleye thimbleye. Couples shall be galvanized. Cable shall be min ½-inch galvanized steel wire rope. Wire rope clamps shall be 1/2-inch galvanized drop forged steel.

PART 3 EXECUTION
3.01 SALTM RIVER GUIDE LOGS

A. Guide Logs shall be installed prior to seed application.

B. Guide log shall be driven into the streambank to the line and grade specified on the Plans. If necessary, a point can be cut on the driven end of the Guide Log to facilitate installation. No trenching for installation will be permitted.

C. After installation, trim damaged log end to undamaged wood, maintaining the specified projection into the channel.

3.02 SALTM RIVER LWD CONSTRICTOR

A. LWD Constrictor shall be installed prior to seed application.

B. Excavate trench to meet specified line and grade for the LWD Constrictor and place LWD.

C. Anchor Root Wad logs where specified with specified anchoring method.

D. Backfill trench with native material, filling all voids and compacting to approximately 90 percent relative density. It is not necessary to backfill the channel bottom around the root fan.

3.03 SALTM RIVER AND ALCOVE LOG COVER STRUCTURES

A. Log Cover Structures shall be installed prior to seed application.

B. Drive Pile Log in location specified and minimum embedment. If necessary, cut point on pile tip to facilitate installation. An augured pilot hole may be used to facilitate driving of Pile Logs. Pilot hole shall be at least 8 inches smaller than the Pile Log diameter to ensure adequate skin friction is obtained.

C. Tightly pin brush between ground and overlying log.

D. After installation, cut top of pile to specified height.

E. Place Cover Logs to contact Pile Log at the location and elevation specified.

F. Anchor logs where specified with specified anchoring method.

3.04 AVIAN HABITAT LOGS

A. Avian Habitat Logs shall be installed prior seed application.

B. Drive Avian Habitat Log within the vertical tolerance and height shown on the plans.

3.05 LOG-TO-LOG ANCHORING

A. Log to Log Anchoring shall be installed where specified.

B. Rebar shall be inserted through the center of the log and bolted on both ends. Rebar, washer, and nut shall be fully recessed within the log.

C. Anchor shall be located within 2 to 3 feet from the end of the log, unless otherwise specified.
D. To minimize movement of logs, anchoring shall be installed such that connections are tight.
E. After installation, the bolted ends of the rebar shall be mushroomed to prevent the connection from loosening.

### 3.06 REBAR FRICTION ANCHORING

A. Rebar Friction Anchoring shall be installed where specified.
B. Rebar shall be inserted through the center of the log to the embedment specified and bolted on the exposed end. Rebar, washer, and nut, shall be fully recessed within the log.
C. Anchor shall be located within 2 to 3 feet from the end of the log, unless otherwise specified.
D. To minimize movement of logs, anchoring shall be installed such that connections are tight.
E. After installation, the bolted end of the rebar shall be mushroomed to prevent the connection from loosening.

### 3.07 SOIL ANCHORING

A. Soil Anchoring shall be installed where specified.
B. Rebar shall be inserted through the center of the log and bolted on both ends.
C. On the side of the log where a Soil Anchor is specified, a washer shall be placed on both sides of the cable loop and bolted. Recessing of the rebar, cable and nut shall not be performed where a Soil Anchor is specified.
D. Soil Anchor shall be installed and load-locked according to the manufacturer’s specifications. Each anchor shall be load tested and shall remain in place with a minimum of 4,000 pounds of loading.
E. Where a soil anchor is not specified, rebar, washer, and nut, shall be fully recessed within the log.
F. Rebar and Anchor shall be located a within 2 to 3 feet from the end of the log, unless otherwise specified.
G. To minimize movement of logs, anchoring shall be installed such that cable and connections are tight.
H. After installation, the bolted ends of the rebar shall be mushroomed to prevent the nut from loosening.

END OF SECTION 06 13 13
SECTION 31 05 16

ROCK WORK

PART 1 GENERAL

1.01 DESCRIPTION

A. The work includes furnishing all labor, supervision, materials, equipment, and incidentals necessary to safely perform all excavations, grading, backfilling, and compaction associated with installation of all the rock and Engineered Streambed Material indicated on the Contract documents or specified herein.

1.02 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

PART 2 REFERENCES

A. ASTM International:


2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).

3. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

4. Caltrans Standard Specifications Section 72

PART 3 SUBMITTALS

A. Refer to section 01 33 00 submittal procedures.

B. All materials required by the Contract Documents shall be submitted with the supplier’s name, address, telephone number, fax number, email address and the name of the responsive person at the supplier’s site at least three (3) weeks prior to delivering the material to the site.

PART 4 PRODUCTS

2.01 GENERAL

A. Native Backfill per Section 31 20 00

B. All materials shall be natural material. No recycled concrete, asphalt or other manmade material will be permitted.
C. Rocks shall be measured along the intermediate (B) axis. The ratio of the longest (A) to shortest axis (C) (A/C) shall not exceed 2.0.

D. Rocks larger than the maximum size specified will not be accepted.

E. All rocks greater than 8-inches in diameter shall be angular.

F. All rock and aggregate shall meet the following material properties:

<table>
<thead>
<tr>
<th>Select Property</th>
<th>California Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparent specific gravity</td>
<td>206</td>
<td>2.5 minimum</td>
</tr>
<tr>
<td>Absorption</td>
<td>206</td>
<td>4.2% maximum</td>
</tr>
<tr>
<td>Durability index</td>
<td>229</td>
<td>52 minimum</td>
</tr>
</tbody>
</table>

G. Existing onsite rock as shown on the plans to be removed may be reused if it meets the above requirements and will be subject to approval of the Construction Manager prior to reuse.

2.02 ROCK SLOPE PROTECTION (RSP) FOR STREAMBANKS, STRUCTURES, SWALES, CHUTES, GRADE CONSTROLS AND CROSSINGS

A. RSP size specified on the plans

B. RSP fabric as specified on the plans

2.03 GRADE CONTROL ROCK

A. Rock from the existing grade control may be reused and shall be free of residual soil.

B. All rock shall be rigid and resistant to erosion.

C. Rocks with diameters greater than 8 inches shall be uneven and rough in appearance.

D. Rock shall conform to the material specifications in Section 72 of the Caltrans Standard Specifications.

E. The rock shall conform to the gradation shown on the Drawings.

2.04 ROCK FOR CONSTRUCTION ENTRANCES

A. Rock size and gradation per Drawings.

PART 5 EXECUTION

3.01 EXCAVATION

A. Excavation shall occur in order to achieve the desired thickness and finished grades.

B. The subgrade surfaces on which the rock, bedding, filter, or geotextile is to be placed shall be cleared and graded prior to placement of bedding, geotextile, or rock.
C. Subgrade shall be compacted to minimum 85% relative compaction or as noted on the plans.

D. When fill to subgrade lines is required, it shall consist of approved materials and shall conform to the requirements of Section 31 20 00.

3.02 STOCKPILING

A. Stockpile materials on site at locations indicated in the Contract Drawings.

B. Stockpile in sufficient quantities to meet Project schedule and requirements.

C. Separate different aggregate materials with dividers or stockpile individually to prevent mixing.

D. Any material not utilized for this project shall become the property of the Contractor and hauled offsite.

3.03 ROCK PLACEMENT

A. Rock shall be placed in general accordance to Section 72 of the Caltrans Standard Specifications.

B. Rock with diameters greater than 12 inches (large rock) shall be placed individually to have a 3-point bearing on underlying rocks and at the discretion of the Construction Manager.

C. All rock less than 12 inches shall be mixed prior to being placed within the channel. This mixture shall be placed within the channel such that the voids between large rocks are filled.

D. The rock shall be placed in such a manner as to avoid displacement of the underlying materials.

E. Place rock in maximum 1 foot lifts where some rocks extend above each lift.

F. Compact the rock by mechanical tamping and fill voids with smaller material until no voids are visible.

G. No rock shall extend above the finish grade by more than 1/3 of its diameter.

3.04 FILTER LAYERS OR BEDDING

A. When specified, the filter, bedding, or geotextile beneath the rock shall be placed on the prepared subgrade. Compaction of filter layers or bedding will not be required, but the surface of such material shall be finished reasonably free of mounds, dips, or windrows.

3.05 STOCKPILE CLEANUP

A. Remove stockpile, leave area in clean and neat condition. Decompact and naturalize the stockpile site surface to pre-construction conditions.

END OF SECTION 31 05 16
SECTION 31 10 13

DEMOLITION/DEBRIS DISPOSAL AND SALVAGE

PART 1 GENERAL

1.01 DESCRIPTION
A. Work Included:
   1. Demolition, removal, salvaging and disposal of the miscellaneous items shown on the plans, including but not limited to existing concrete drainage structures, automobile chassis, culverts, wood and metal posts, miscellaneous agricultural equipment, gates, tires, piping, fencing and dump site contents.

1.02 MEASUREMENT AND PAYMENT
A. Refer to Section 01 15 00 Measurement and Payment.

1.03 SUBMITTALS
A. Within five (5) working days of Award of Contract, Contractor shall submit a site-specific structure Demolition and Debris Removal Plan and Schedule for site work, outlining work areas, methods, start work dates, equipment and crew types to perform the work as well as hazardous material handling and disposal Plans consistent with the Debris Disposal Plan.

B. Working with the Construction Manager, the Contractor shall develop a list of off-site refuse disposal facilities, including contact information and list of items accepted for disposal at identified facility consistent with the Debris Disposal Plan.

1.04 QUALITY ASSURANCE
A. In addition to complying with all pertinent codes and regulations, comply with the requirements of those insurance carriers providing coverage for this work.

B. The Contractor shall comply with all OSHA and California DTSC requirements for demolition of item described in description of work, and for items that may be encountered during this work.

C. The Contractor shall not disturb any power poles, overhead lines or other utilities.

1.05 PROJECT CONDITIONS
A. Disposition of material:
   1. Title to materials:
      a. Title to all materials to be removed, except as specified otherwise, is vested in the Contractor upon receipt of notice to proceed. The HCRCDD will not be responsible for the condition or loss of, or damage to, such property after notice to proceed.
2. Reuse of materials and equipment:
   a. Carefully remove and store materials and equipment indicated to be reused or relocated to prevent damage, and reinstall as the work progresses.

B. Cleanup:
   1. Debris and rubbish:
      a. Contain, remove and transport debris and rubbish in a manner that will prevent spillage to adjacent areas.
   2. General:
      a. Use all means necessary to protect existing structures designated to remain and, in the event of damage, immediately make all repairs and replacements necessary to the approval of the Construction Manager at no additional cost to the HCRCD.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION

3.01 SITE INSPECTION
   A. Prior to any demolition and debris removal work, carefully inspect the site and determine the extent of work involved.
   B. Report any discrepancy to the Construction Manager immediately.

3.02 COORDINATION AND SCHEDULING
   A. Coordinate work with other trades and subcontractors.

3.03 SAFETY
   A. All work shall conform to pertinent OSHA regulations and to other State and local codes and ordinances as applicable.
   B. If discovered, the Contractor shall not cut or crush potentially asbestos containing materials. Contractor shall attempt to remove these materials in an intact fashion and separating pipe at existing joints.

3.04 PROTECTION
   A. Locate, identify, and protect conduits and other underground utilities indicated to remain, from damage as shown on the Plans.
   B. Protect trees, plant growth, and features designated to remain.
   C. Protect benchmarks and existing structures from damage or displacement.

3.05 SALVAGING MATERIAL
A. The Contractor shall salvage, with reasonable care, all material designated to be salvaged on project plans or as identified by the Construction Manager. The Contractor shall salvage in readily transportable sections or pieces.

B. The Contractor shall stockpile salvaged material at a designated area on the project as directed on plans or by the Construction Manager.

C. Rock removed from the existing grade control and not reused onsite shall become the property of the contractor and hauled offsite.

3.06 REMOVAL AND DISPOSAL OF DEBRIS

A. Remove all debris from the site and leave the site in a neat and orderly condition.

B. The Contractor shall handle and dispose of unsuitable and excess material legally, at refuse facility outside the Project site.

C. All salvaged material remains the property of the HCRCD and shall be stockpiled by the Contractor where directed by the Construction Manager.

D. Asbestos Containing Materials and Hazardous Material: The Contractor shall handle and dispose of material according to Federal, State, and local regulations at a legal off-site location. Contractor shall furnish a copy of all disposal permits to the Construction Manager.

END OF SECTION 31 10 13
SECTION 31 11 00
CLEARING AND GRUBBING

PART 1 GENERAL

1.01 DESCRIPTION

A. The work of this section consists of clearing, grubbing, incidental clearing, chipping, stockpiling chips onsite, and off-hauling and disposing excess wood chips.

B. No clearing or grubbing shall occur outside construction limits of disturbance without prior approval from the Construction Manager and completion of environmental clearance surveys.

C. Grubbing is defined as removing sticks, brush, stumps, grass, weeds, roots, decayed vegetable matter, and woody debris resting on or protruding through the ground surface and all objectionable woody matter which is embedded in the underlying soil. Grubbing shall include incidental vegetation clearing within the grubbing limits. All material generated during grubbing shall be chipped and either stockpiled in the designated areas shown on the plans, hauled off-site to an authorized site or used as directed by the Construction Manager.

D. Clearing is defined as removing existing vegetation within the limits shown on the plans. All vegetated material generated during clearing shall be chipped and either stockpiled in the designated areas shown on the plans, hauled off-site to an authorized site or used as directed by the Construction Manager.

E. All work shall be conducted in accordance to the Nesting Bird Habitat Avoidance Memo and as directed by the HCRCD biologist and Construction Manager. The Nesting Bird Habitat Avoidance Memo has been provided as reference in Appendix B.

F. Related work described elsewhere:
   1. Section 31 20 00 – Earthwork

1.02 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.03 SUBMITTALS

A. See Section 01 11 00 Summary of Work for the requirements of the Project Approach Plan, which includes work completed under this specification.
1.04 QUALITY ASSURANCE

A. Qualifications of workmen:

1. Provide sufficient skilled workmen and supervisors who shall be present at all times during execution of this portion of the work and shall be thoroughly familiar with the type of construction involved and the materials and techniques specified.

1.05 PRESERVATION OF PROPERTY

A. Where construction is to be performed in the vicinity of trees and shrubbery, the work shall be carried on in a manner which will cause minimum damage. Trees which are to be removed will be designated on the drawings. Under no circumstances are additional trees to be removed without written permission from the Construction Manager. Trees and shrubbery that are not to be removed shall be protected from injury or damage resulting from the Contractor's operations. It shall be the responsibility of the Contractor to alert his men, his suppliers, and all sub-contractors of the intent of these Specifications pertaining to the protection of vegetation. During the execution of his work, the Contractor shall use the same care and protection of all vegetation within their work area.

B. In areas where trees or shrubs may be damaged by construction equipment, the Contractor shall provide protective fencing, padding on tree trunks, tie-back branches or take other necessary actions to prevent damage to the trees, shrubs, or other vegetation. Damage to trees and shrubs shall include, but will not be limited to:

1. Bark damage to trees
2. Breakage of branches on trees or shrubs
3. Breaking or tearing of roots
4. Spilling toxic materials near the root zones
5. Spraying toxic materials on foliage
6. Fire damage to foliage and branches
7. Compaction of root areas under the drip line or damage by fill or storage of materials over the root zone
8. Foot or vehicular damage on low shrubs and groundcover

C. All damage shall be immediately reported to the Construction Manager who will file a report so that penalties may be determined.

D. If the Contractor inadvertently removes vegetation not designated for removal, the Contractor shall replant at a ratio of 3-to-1 (replanted area-to-removed area) of species, size and location directed by the Construction Manager. The penalty is also applicable to trees damaged to the extent that such damage will, in the Construction Manager’s opinion, cause the tree to die.

E. Contractor shall exercise caution when working near trees not designated to be removed, so that the trees will not be damaged. No root greater than 1 inch in diameter shall be cut unless it is necessary to do so during excavation to reach the specified grade.
1.06 PROJECT CONDITIONS

A. Environmental requirements:

1. No burning shall be permitted.

2. Contractor shall be responsible for obtaining all necessary permits, approvals and Construction Manager’s authorization for disposal of material resulting from grubbing and stripping operations in areas not already specified in the contract documents.

PART 2 PRODUCTS

2.01 PRODUCTS

A. Wood Chip Material is the result of chipping cleared and grubbed material. The Wood Chip Material must meet the following specifications:

1. Maximum acceptable soil content is 5% by weight.

2. 8 inch minus wood chip material

PART 3 EXECUTION

3.01 LAYOUT

A. The Contractor shall layout the grubbing and stripping limits with lath five (5) working days prior to work, for review and approval by the Construction Manager.

B. The Construction Manager will review the clearing and grubbing layout and will direct the Contractor to make adjustments to the limits if necessary, prior to approval.

3.02 CLEARING AND GRUBBING

A. In fall 2017, vegetation clearing was conducted throughout some of the grading limits to avoid future impacts to nesting birds. Stumps, roots and some above ground loose woody debris and foliage remain in these previously cleared areas. Some clearing remains to be completed within the limits of grading and has been shown on the plans. Alders or willows greater than 8” diameter to be cleared shall be salvaged in minimum 15-foot lengths and either used as avian habitat logs, chipped or stockpiled at the onsite staging area.

B. **Within Limits of Grading**: As shown on the plans and directed by the Construction Manager, all remaining debris including but not limited to fence posts, trees, stumps, large roots, buried logs, decayed vegetable matter, loose above ground logs, and all other objectionable material shall be removed and chipped.

C. **Between Limits of Grading and Limits of Disturbance**: Unless noted otherwise on the plans, all above ground dead, loose woody debris from previous clearing may remain within this area. If the Contractor chooses to clear vegetation in this area for construction access purposes, it shall be subject to prior approval by the Construction Manager and at no additional expense to the HCRCD. If this area is grubbed and or cleared of incidental vegetation, the material shall be chipped, fill stump and root holes with native material,
compact with two passes of heavy equipment to the elevation of the adjacent ground.

D. **Incidental Vegetation Clearing for Permanent Fence Installation**: This area is within the limits of disturbance and if the Contractor chooses, may clear vegetation in this area for fence installation purposes and shall be subject to prior approval by the Construction Manager and at no additional expense to the HCRCD.

E. **Outside Limits of Disturbance**: Any clearing and/or grubbing activities outside the limits of disturbance is prohibited unless authorized by the Construction Manager.

F. A minimum grubbing depth has not been specified however it is the Contractor’s responsibility to meet the Wood Chip Material specifications (above Section 31 11 00 2.01A) and to meet the Agricultural Application Sediment specifics stated in Section 31 20 00 2.01A. The Contractor shall use experience and current site conditions to determine the required depth and density of grubbed material to meet these two “product” specifications.

3.03 **REMOVAL AND DISPOSAL OF MATERIAL**

A. Wood chips shall first be stockpiled in individual piles as shown the Erosion Control plans. Once the individual piles have been placed, the contractor shall haul all excess wood chips to the onsite staging area shown on the plans.

END OF SECTION 31 11 00
SECTION 31 20 00
EARTHWORK

PART 1 GENERAL
1.01 SUMMARY
A. Section Includes: excavation, trenching, backfilling, compaction, and grading necessary or required for the construction of the work as covered by these Specifications and indicated on the Drawings.

1.02 RELATED SECTIONS:
A. Section 01 33 00 – Submittal Procedures
B. Section 01 11 00 – Summary of Work
C. Section 01 14 19 – Use of Site
D. Section 31 10 13 – Demolition/Debris Disposal
E. Section 31 11 00 – Clearing and Grubbing
F. Section 31 05 16 – Rock Work
G. Section 32 92 19 – Seed and Mulch

1.03 MEASUREMENT AND PAYMENT
A. Refer to Section 01 15 00 Measurement and Payment.

1.04 REFERENCES
A. Documents:
   a. “Geotechnical and Engineering Geologic Report, Salt River Ecosystem Restoration Project” (Geotechnical Report), dated March 2012. The Geotechnical Reports contain geotechnical evaluation of site conditions, construction guidelines, soil moisture conditioning, and compaction testing guidelines. The reports are available upon request to the Construction Manager.
B. California Standard Specifications – 2010

1.05 SUBMITTALS
A. Submit in accordance with Section 01 33 00 Submittal Procedures.
B. See Section 01 11 00 Summary of Work for the requirements of the Project Approach Plan, which includes work completed under this specification.
C. Submit the following:

2. Agriculture Application Sediment: Deliver representative 5-cubic yard sample to each application area. Sample shall be approved by the Construction Manager prior to delivery of specified volume.

1.06 QUALITY ASSURANCE

A. Before beginning construction activities, such as grading, excavation, trenching, or filling, in any part of the project site, Contractor shall install temporary structures to guide runoff away from the work area and to capture eroded material before it reaches natural watercourses. The measures shall be in accordance with reviewed and approved Water Management Plan and Storm Water Pollution Prevention Plan (SWPPP).

B. Contractor shall arrange construction activities to minimize erosion to the maximum practical extent. Clearing, excavation, and grading shall be limited to those areas of the project site necessary for construction. Contractor shall minimize the area that is exposed and unprotected.

C. Contractor shall clearly mark and delineate the limits of work activities and Limits of Disturbance. Contractor shall not allow equipment to operate outside the limits of work or to disturb protected areas, except as already noted in specifications.

D. Qualifications of work force:

1. Provide sufficient skilled work force and supervisors who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of construction involved and the materials and techniques specified.

1.07 COMPACTION TESTING

A. The Contractor shall engage a qualified third party compaction testing firm to provide compaction testing at the locations described in the section below (Testing Frequency). Testing reports shall be provided to the Construction Manager for review and approval.

B. The Construction Manager may engage a qualified compaction testing laboratory to perform field tests and inspections to verify the Contractor’s compaction effort meet the compaction requirements of plans and specifications. Relative compaction tests will be made at locations determined by the Construction Manager. When tests indicate that the specified compaction has not been achieved, that portion of the Work shall be reworked until the required density has been attained.

C. The Contractor shall make all necessary excavations for compaction tests. Costs of excavating, backfilling, and compacting in connection with compaction testing shall be borne by the Contractor. Excavations for compaction tests shall be backfilled with native backfill and compacted to the specified density. The Contractor shall engage a qualified testing organization subject to approval by the Construction Manager and pay for all testing in accordance to the specifications. The Contractor shall be required to pay for all required repeat tests in that area until the required results are obtained and including all associated incurred costs AND in areas where the Contractor inadvertently over-excavates beyond the finished grades shown on the plans.
D. All compaction shall be by mechanical means unless the Contractor can demonstrate other means that will accomplish required compaction to the satisfaction of the HCRCD. Compaction equipment shall be of suitable type and adequate to obtain the densities specified and approved. Compaction equipment shall be operated in strict accordance with the manufacturer's instructions and recommendations. Equipment shall be maintained in such condition that it will deliver the manufacturer's rated compactive effort.

E. Testing Methods:

1. In-place Density: ASTM D1556 or D2167

2. ASTM D-698, Procedure A

F. Testing Frequency:

a. Native Backfill in Channel at Existing Grade Control and Streambank Repair Site (90% Compaction):
   i. Backfill – minimum two (2) per lift

b. Native Backfill for Channel Grading and Berms (85% Compaction) – Contractor shall demonstrate in the presence of the Construction Manager their method(s) to achieve the specified compaction for native backfill and conduct a minimum of three (3) successful and consecutive tests per method and for up to three (3) representative locations of minimum size 10ft x 20ft.

G. Definition:

1. Relative Compaction: In-place density divided by the maximum dry density laboratory compaction expressed as percentage.

1.08 PRESERVATION OF PROPERTY

A. Where construction is to be performed in the vicinity of trees and shrubbery, the work shall be carried on in a manner which will cause minimum damage.

B. Existing power and telephone lines, fences, pipelines or other conduits, embankments, and structures in the vicinity of the work shall be supported and protected from injury by the Contractor during the construction and until the completion of the work.

C. All damage shall be immediately reported to the Construction Manager who will file a report so that penalties may be determined.

D. The Contractor shall remove all temporary stockpiles by October 15th, decompact and rehabilitate the stockpile/staging areas and leaving it in clean and neat condition.

1.09 EXPLOSIVES

A. The Contractor shall not use explosives of any kind on the premises.

1.10 GRADES, LINES, LEVELS, AND PERMANENT MARKERS

A. Staking:
1. The Contractor is responsible for providing all surveying and staking for laying out the earthworks at the site based on bench marks shown on the plans and in accordance to the specification section 01 71 23.16 Construction Survey Staking.

B. Responsibility for correctness:

1. Contractor will be held responsible for the correctness of the layout and for establishing the location of possible buried utility lines. In the event there is any conflict between actual conditions and the drawings, Contractor shall notify the Construction Manager immediately and shall not proceed with the work until directed by the Construction Manager.

C. Preservation of markers:

1. All stakes, boundary lines, corner markers, bench marks or survey markers, etc., which have been or may be established in any part of the site, shall be carefully preserved and respected by the Contractor and shall be restored at the Contractor's expense if lost or destroyed as a result of his operations.

1.11 ACCURACY OF DATA

A. Site data given herein and on the drawings are as exact as could be secured, but their absolute accuracy cannot be guaranteed. Exact locations, distances, elevations, etc., shall be finally governed by field conditions and the Construction Manager's instructions.

B. The Contractor shall promptly, and before such condition is disturbed, notify the Construction Manager in writing of soil or subsurface conditions which differ materially from those conditions shown in the Contract Documents or in the records of investigations of soil or subsurface conditions referred to above. The Construction Manager shall promptly investigate the conditions. If he/she finds the conditions materially different from those which reasonably should have been anticipated on the basis of a careful consideration of said records of investigations, logs of borings and examination of the site, and finds that said conditions will cause an increase or decrease in the cost of, and/or the time required for performance of the Contract, he/she will, after approval by the HCRCD, modify the Contract Terms in writing to provide for an equitable adjustment in cost and/or time of performance.

C. A thorough attempt has been made to show the type, location, and number of all utilities, however, no guarantee is made as to the location and number of such utilities. The Contractor shall repair all utilities damaged in the progress of his work. The Contractor shall notify all owners of utilities of commencement of and sufficiently in advance to have the utilities mark the location of their facilities. The Contractor shall be prepared at all times with labor, equipment, and materials to make repairs on damaged mains or utilities.

1.12 ADDITIONAL SAFETY RESPONSIBILITIES

A. The Contractor shall be responsible for ensuring such measures: (1) comply fully with 29 CFR Part 1926 OSHA Subpart P Excavations and Trenches requirements, (2) provide necessary support to the sides of excavations, (3) provide safe access to the Construction Manager’s sampling and testing within the excavation, (4) provide safe access for backfill, compaction, and compaction testings, and (5) otherwise maintain excavations in a safe manner that shall not endanger property, life, health, or the project schedule. All earthwork shall be performed in strict accordance with applicable law, including local ordinances and applicable OSHA requirements.

1.13 SPECIAL CONSTRUCTION REQUIREMENTS
A. Materials excavated from the Salt River channel are anticipated to be primarily silty fine sands (SM) and sandy silts (ML) with minor amounts of clay (CL), poorly graded sand (SP), and poorly graded fine gravels (GP), LACO Associates 2012. Sediment excavated from the Sediment Management Area (SMA) are anticipated to be of similar composition.

B. Contractor should anticipate the potential for soft, saturated soils and/or poor performance of soils under repeat vehicle traffic and heavy loads, LACO Associates 2012.

C. Repeated vibration and/or high loads may lead to pumping of the native fine sand/silt soils resulting in the saturation of surficial soils. Contractor should expect soft saturated subgrades under roadways and other surface improvements. See project Geotechnical Report, available upon request from the Construction Manager.

D. Excavations lower than an elevation 8 feet (NAVD 88) should anticipate saturated soil conditions. Specialized equipment and/or dewatering may be necessary for Contractor to work within the saturated soils.

E. Contractor should expect the in-situ volume material to increase (termed “expansion”) by approximately 10 to 15 percent during excavation. Therefore, Contractor's transportation volume estimates should be based on a minimum 10 to 15 percent increase in calculated cut volumes.

PART 2 PRODUCTS

2.01 SOIL AND OTHER MATERIALS

A. On Site Generated Materials
   a. Agricultural Application Sediment: onsite native soils shall be free of rock or gravel larger than 1 inches in any dimension, woody vegetation larger than 1.5 inches in diameter and 8 inches in length, debris, waste, and other deleterious matter and shall not exceed an organic content of 5% by weight. Contractor shall process material as required to remove organic material within the channel corridor or at the application area. At the request of the Construction Manager, the Contractor shall be required to demonstrate compliance with the organic content achieved and shall describe such strategy in the Project Approach Plan per Specification Section 01 00 00.

   b. Fill for onsite use (Native Backfill): satisfactory soil materials free of vegetation, woody debris, and deleterious materials and as approved by the Construction Manager.

PART 3 EXECUTION

3.01 OVERVIEW

A. Contractor is responsible for excavating sediment, hauling to specified application areas and placing in windrows in accordance to the plans and these specifications.

3.02 EXAMINATION

A. Verification of Conditions: Prior to commencement of site grading work the Contractor shall notify the Construction Manager that the site has been cleared. The Construction Manager shall have sufficient time to review the site. Site grading shall not commence
until the Construction Manager has completed review of the site and the Construction Manager has given approval to proceed.

3.03 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, freezing temperatures or frost, and other hazards created by earthwork operations. Provide protective insulating materials as necessary.

B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and roadways.

C. Prevent surface water and ground water from entering excavations, from ponding on prepared sub grades, and from flooding Project site and surrounding area.

D. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.

3.04 CLEARING AND GRUBBING WORK REQUIRED

A. Clearing and grubbing work shall be accomplished in accordance with the provisions of Section 31 11 00 of these specifications.

3.05 CONTROL OF WATER

A. The Contractor shall be responsible for furnishing temporary drainage facilities to convey and dispose of surface water falling on or passing over the site. This work shall be accomplished in accordance with the provisions of Section 01 57 00 of these specifications.

3.06 EXISTING UTILITIES

A. The known existing utilities are shown on the Drawings in their approximate location. The Contractor shall exercise care in avoiding damage to all utilities, as he will be held responsible for their repair if damaged. There is no guarantee that all utilities or obstructions are shown, or that locations indicated are accurate. Utilities are piping, conduits, wire, cable, ducts, manholes, pull boxes and the like, located at the project site and adjoining said site.

B. Excavations around underground electrical ducts and conduits shall be performed using extreme caution to prevent injury to workers or damage to electrical ducts or conduits. Similar precautions shall be exercised around gas lines, telephone and television cables.

3.07 PRIMARY SITE ACCESS

A. Within one (1) week of the Notice to Proceed and after obtaining an approved Encroachment Permit from the County, Contractor shall initiate improvements to the primary site access locations as indicated on Plans. Establishing and maintaining construction entrances is a priority as all equipment and worker access and off-hauling of material shall occur only through the construction entrances shown on the plans; no off-hauling of demolition material or excavated soil may occur along any other access without prior written consent of the Construction Manager.
B. Contractor shall not import any fill material without receiving prior approval from the Construction Manager. No asphalt containing materials shall be imported to the site. Thus, no recycled aggregate is permitted.

C. The HCRCD and their representatives are not liable for any delays that result from regulatory-driven changes in the construction entrance access design and/or County encroachment permit.

3.08 TEMPORARY CONSTRUCTION ACCESS AND HAUL ROUTES

A. Surface soil throughout much of the channel corridor and application areas may yield under the weight of medium and heavy-duty earthmoving equipment. Thus, Contractor may need to create or improve temporary construction access routes through the project area. Potential access route design alternatives include the following as provided in the Geotechnical Report:

1. Proof-rolling with treatment of soft spots by excavation and replacement with crushed rock or river-run gravel. Interlocking mats or planks may be used for short soft segments as well.

2. Construct a structural subgrade by emplacing compacted native material on top of geotextile fabric.

3. Construct a structural subgrade using woven or non-woven geotextile fabric and imported Class 2 aggregate base and/or river-run gravel.

B. All temporary construction access roads shall be removed and native ground decompacted and restored back to pre-project conditions and to the satisfaction of the Construction Manager.

3.09 GRADING AND EXCAVATION

A. Perform all excavation of every description, regardless of the type, nature, or condition of material encountered, as specified, shown, or required to accomplish the construction. Material for fill, backfill, or for protection of excavations from surface drainage shall be neatly placed and kept shaped so as to cause no interference with public travel.

B. The Contractor shall be responsible for meeting the finish grades as shown on the plans.

C. All areas covered by the project, including excavated and filled areas and adjacent transition areas, shall be uniformly graded so those finished surfaces are at the elevations established by the plans.

D. In some instances, the existing Salt River channel and other low areas adjacent to the channel may become disconnected by the new grading. At the direction of the Construction Manager, the Contractor shall grade a connection channel to those lower areas to allow drainage and connectivity.

E. Cut the active channel, active berm, side channel, active bench accurately, and valley walls to the grades shown. Take care not to over-excavate and backfill excessive excavation to grade. Trim all roots, stumps, rock and other foreign matter from the sides and bottom of the ditches.

F. Cut ditches/outfalls/swales accurately to the grades shown. Take care not to over-excavate. Backfill excessive excavation to grade. Trim all roots, stumps, rock and other
foreign matter from the sides and bottom of the ditches. Compact the surfaces of ditch slopes and bottom.

G. Correct areas over excavated with appropriate backfill and compact to a minimum of 85% relative compaction or as specified or as directed by Construction Manager.

H. Prevent displacement or loose soil from falling into excavation; maintain soil stability.

I. Protect structures, utilities and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

J. Temporary cut slopes – maximum slope of temporary cut slopes shall be determined by the Geotechnical Report.

K. Groundwater may be encountered within the planned excavation depth, including utility trenches. Dewatering may be necessary to accomplish required excavations.

L. Due to the potential for slope failure associated with surcharges loads and/or vibrations from the vehicle traffic, high traffic and/or high load construction roads, stored materials, excavated soils, and other similar loads should be sited outside of the projection of a 4H:1V slope, as measured from the base of the slope.

M. Notify the Construction Manager of unexpected subsurface conditions.

3.10 BACKFILLING AND COMPACTION

A. The placement of fills to achieve the finished grades shall be done under the supervision of the Construction Manager.

B. Compact subgrade as necessary to support density requirements of subsequent layers of fill and as shown on the plans.

C. Fill in lifts allowing time for material tester to test each lift for compaction.

D. Each lift shall not exceed six inches unless otherwise indicated or as directed by the Construction Manager.

E. All areas to receive fills shall be uniformly moisture conditioned as required to obtain the required compaction.

F. Add water to the backfill material or dry the material as necessary to achieve specified compaction density of each layer of backfill being compacted. Employ such means as may be necessary to secure a uniform moisture content throughout the material of each lift being compacted.

G. After the material has been moisture conditioned, compact it with compaction equipment appropriate for the use to achieve 85% compaction or as otherwise specified. Compact using the approved means and methods demonstrated by the contractor to achieve 85% compaction. If other methods are utilized, contractor shall provide in-place density testing at a frequency acceptable to the Construction Manager.

H. If the backfill material becomes saturated from rains or any other source because it was not compacted to the specified density or was not backfilled and compacted to surface grade, through negligence or otherwise, remove the faulty material and replace it with suitable material compacted to the specified density. No additional payment will be made for doing such work or removal and replacement.
I. Recompaction: Where, in the judgment of the Construction Manager, or the results of the field density testing, the moisture content is not suitable or insufficient compaction has been obtained, the fill shall be reconditioned and/or recompacted to the specified density prior to placing any additional fill material. The Contractor shall be responsible for placing and compacting approved fill material in accordance with these specifications. If the Contractor fails to meet the compaction requirements, he/she shall reduce his rate of haul, furnish additional spreading, moisture conditioning and/or compacting equipment or make any other adjustments necessary to produce a satisfactory compacted fill.

J. Heavy compaction equipment shall not be operated within two feet of any structure. Hand directed tampers or plate vibrators shall be used on areas not accessible to heavy compaction equipment. Fills compacted in this manner shall be placed in layer not greater than four inches in thickness before compaction, and shall meet the same density requirements as adjacent areas.

K. After the placement of the native backfill, the surface areas shall be left constructed and trimmed to conform to the lines, grades, and cross sections shown on the plans. The surface area shall be graded to provide surface drainage to flow to desired locations.

3.11 WATER FOR COMPACTION

A. See Temporary Facilities and Controls specification for optional water sources.

B. Water shall be clean and free of oil, acids, salts, and other deleterious substances and suitable for agricultural purposes. Furnish as required from source approved by Construction Manager, and as specified in these specifications.

C. Water shall be applied by means of pressure-type distributors or pipe lines equipped with a spray system or hoses with nozzles that will ensure a uniform application of water.

3.12 SUPPORT OF EXCAVATIONS

A. All necessary measures to protect excavations and adjacent improvements from running, caving, boiling, settling, or sliding soil resulting from the groundwater table and the nature of the soil excavated. See Geotechnical Report for recommendations for 4H:1V projection for excavation setbacks.

3.13 FINISH GRADING AND SOIL PREPARATION

A. Except where shown otherwise in the Drawings, restore the finish grade to the original contours and to the original drainage patterns. Grade surfaces to drain away from structures.

B. Upon completion of grading and prior to seed and mulch application, soil preparation shall occur in accordance to the seed and mulch specification section 32 92 19.

C. Earthwork tolerances shall conform to the following:

<table>
<thead>
<tr>
<th>Description of Earthwork Feature</th>
<th>Tolerance (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Horizontal</td>
</tr>
<tr>
<td>Salt River Active Channel</td>
<td></td>
</tr>
<tr>
<td>Salt River Active Berm</td>
<td>0.5</td>
</tr>
<tr>
<td>Salt River Side Channel</td>
<td></td>
</tr>
<tr>
<td>Alcove Area</td>
<td>0.5</td>
</tr>
<tr>
<td>Salt River Active Bench</td>
<td></td>
</tr>
</tbody>
</table>
### Limits of Grading

<table>
<thead>
<tr>
<th>Area</th>
<th>Limit</th>
<th>EG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt River Inlet and Outlets</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Grade Control Structure</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Sediment Management Area Maintenance</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>EG = Existing Ground</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### D. Excessive passes of finish grading equipment that would compact seeding areas shall be avoided. Where equipment access routes are required, the sequence of construction activities shall be coordinated to only allow equipment access prior to preparation of soils. Upon completion of soil preparation activities, no further vehicular traffic will be allowed other than equipment required for seeding or planting. If equipment access should become necessary, the access route shall be disked and fine graded again prior to seeding to eliminate any resulting soil compaction.

### 3.14 FIELD QUALITY CONTROL

**A.** If, in the opinion of the Construction Manager, required compaction is not being achieved, Contractor will provide reimbursement for re-testing. The Construction Manager shall determine the number and location of tests required. The Contractor shall furnish a backhoe and operator upon request to the testing laboratory, at no cost to the HCRCD.

**B.** Perform additional compacting effort or re-work as required until compaction meets or exceeds requirements.

**C.** Ensure excavations are safe for testing personnel.

### 3.15 PROTECTION

**A.** The Contractor shall prevent erosion of freshly graded areas during construction and until such time as a permanent drainage and erosion control measures have been installed.

**B.** Earthwork operations shall be conducted so as to prevent windblown dust and dirt from interfering with the surrounding normal operations. Contractor shall assume liability for all claims related to windblown dust and dirt. Water shall be applied in conformance with applicable provisions of Section 17 of the State Standard Specifications and with Section 1590 (e) of CAL/OSHA, Title 8, and SWPPP.

### 3.16 SETTLEMENT

**A.** Any settlement in excess of Geotechnical Report findings, in backfill, fill, or in structures built over the backfill or fill, which may occur within the guarantee period specified in the General Conditions will be considered to be caused by improper compaction methods and shall be corrected at the Contractor's expense. Any structures damaged by settlement shall be restored to their original condition by the Contractor at no cost to the HCRCD.

### 3.17 AGRICULTURAL APPLICATION SEDIMENT FOR APPLICATION AREAS

**A.** Contractor shall deliver the following volumes of Agricultural Application Sediment to the Application Areas as shown on the Haul and Application Plan Sheet in the Plans.
B. Contractor shall provide written verification that the Application Areas received the above mentioned volumes prior to placing in the remainder areas.

C. Contractor shall provide written verification of the final volume delivered to the remainder areas.

3.18 DISPOSAL OF EXCAVATED MATERIAL

A. All excavated soils shall be hauled to designated sites.

B. Soil disposal on non-designated reuse areas is not permitted.

END OF SECTION 31 20 00
Humboldt County Resource Conservation District
Salt River Ecosystem Restoration Project – 2019 Construction

SECTION 32 92 19
SEED AND MULCH

PART 1 GENERAL

1.01 SUMMARY

A. The DIVISION 01 - GENERAL CONDITIONS developed for the Salt River Ecosystem Restoration Project Technical Specifications shall apply to all of the work of every sub-Section of these Specifications as if fully repeated in each.

B. Work specified herein and shown on the Plans applies to the 2019 Construction Phase of the Salt River Ecosystem Restoration Project. All work shall be sequenced and completed as specified within these Technical Specifications.

C. Provide all material, labor and equipment necessary to perform the Work for soil preparation, seeding, and mulching as shown on the Plans and as specified herein. The Work of this Seed and Mulch SECTION includes but is not limited to:

2. Seeding.
3. Applying straw and tackifier.

D. Work specified within this SECTION shall comply with the Project’s SWPPP requirements per SECTION 02 27 00 EROSION CONTROL.

1.02 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.03 RELATED TECHNICAL SECTIONS

A. SECTION 01 15 00 MEASUREMENT AND PAYMENT
B. SECTION 31 20 00 EARTHWORK
C. SECTION 02 27 00 EROSION CONTROL
D. SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS

1.04 REFERENCE STANDARDS

A. Nomenclature:


B. California Seed Law (California Department of Food and Agriculture). More information is available online at:


C. All standards shall include the latest additions and amendments as of the date of advertisement for bids.

D. American Society for Testing and Materials (ASTM):

1.05 SUBMITTALS

A. General: Submittals to be in accordance with the requirements of DIVISION 01 - GENERAL CONDITIONS and SECTION 01 33 00 SUBMITTAL PROCEDURES.

B. Prior to application, Contractor shall submit to Humboldt County Resource Conservation District (HCRCD) a signed acknowledgment from each supplier indicating that the seeding material meets requirements specified herein.

C. Contractor shall submit the following:
   1. For Contractor-provided seed: A letter, or appropriate seed lot tags, from seed supplier stating the botanical name, common name, provenance, minimum percent purity, minimum percent germination, and pounds pure live seed of the seed mix prior to application.
   2. Proof that the tackifier meets the Specifications described in this SECTION.
   3. Prior to delivery of straw to Project site, submit the name, address, and telephone number of the straw supplier and proof that the straw meets the Specifications described in this SECTION.
   4. Hydroseeding and hydromulching: Proposed areas and proposed methods for hydroseeding and hydromulching.

D. In the event that the Contractor chooses to force germinate, the Contractor shall submit a shop drawing of the proposed irrigation system as described in this SECTION.

1.06 TIMING AND COORDINATION

A. Timing of seeding application is subject to the timeframes and conditions specified in sub-Section Broadcast Seeding.

B. Timing of soil preparation, seeding, and mulching work shall be coordinated and sequenced with other project work.
   1. All earthwork and grading of the site shall be complete per DIVISION 31 – EARTHWORK prior to beginning soil preparation.
   2. Prior to installation of biodegradable mat and erosion control blanket per DIVISION 31 - EARTHWORK, the application of seed, straw, and tackifier shall be approved by the HCRCD in all areas receiving biodegradable mat and erosion control fabric.

C. Seeding shall be completed prior to October 15th, or as otherwise approved by the HCRCD.
D. For site access and water supply for optional force germination (per Sub-Section Force Germination), Contractor shall see SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS.

PART 2 PRODUCTS

2.01 GENERAL

A. Materials not conforming to these Specifications and requirements shall remain the property of Contractor and shall be removed from Project site at no additional cost to the HCRCD.

2.02 SEED

A. Seed – General

1. All seed shall be provided by the Contractor at the proportions presented in the following tables:

Table 1. Freshwater Seed Mix

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Pounds of Pure Live Seed/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromus carinatus</td>
<td>California brome</td>
<td>6.0</td>
</tr>
<tr>
<td>Deschampsia cespitosa ssp. cespitosa</td>
<td>tufted hairgrass</td>
<td>2.0</td>
</tr>
<tr>
<td>Elymus glaucus</td>
<td>blue wild rye</td>
<td>8.0</td>
</tr>
<tr>
<td>Elymus X Triticum</td>
<td>regreen hybrid wheatgrass</td>
<td>15.0</td>
</tr>
<tr>
<td>Festuca rubra</td>
<td>red fescue</td>
<td>10.0</td>
</tr>
<tr>
<td>Hordeum brachyantherum</td>
<td>meadow barley</td>
<td>10.0</td>
</tr>
<tr>
<td>Scirpus microcarpus</td>
<td>panicked bulrush</td>
<td>2.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>53.0</td>
</tr>
</tbody>
</table>

Table 2. Organic Pasture Seed Mix

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Pounds of Pure Live Seed/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lolium perenne²</td>
<td>tetraploid perennial ryegrass</td>
<td>8.0</td>
</tr>
<tr>
<td>Trifolium alexandrinum</td>
<td>Berseem clover</td>
<td>5.0</td>
</tr>
<tr>
<td>Lotus corniculatus</td>
<td>Birdsfeet trefoil</td>
<td>3.0</td>
</tr>
<tr>
<td>Trifolium pratense</td>
<td>Barduro red clover</td>
<td>5.0</td>
</tr>
<tr>
<td>Trifolium repens</td>
<td>white clover (ladino type)</td>
<td>3.0</td>
</tr>
<tr>
<td>Trifolium fragiferum</td>
<td>Salina clover</td>
<td>2.0</td>
</tr>
<tr>
<td>Lolium perenne multiflorum¹</td>
<td>Italian ryegrass</td>
<td>4.0</td>
</tr>
<tr>
<td>Lolium multiflorum¹</td>
<td>Tetraploid annual ryegrass</td>
<td>3.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>33.0</td>
</tr>
</tbody>
</table>

¹The Jepson Manual, 2nd edition (Baldwin et al. 2012) recognizes Festuca perennis, however many seed suppliers use the names Lolium perenne and L. multiflorum as synonyms.
2. Legume seed shall be pellet-inoculated as provided in bulletin AXT-280 of the University of California Cooperative Extension, “Pellet Inoculation of Legume Seed.”

3. Pasture Seed
   a. All pasture seed shall be organic. In the event that species in the specified pasture mix are not all commercially available as certified organic seed, Contractor shall provide written certification from seed supplier stating such or provide alternative organic seed mix for review and approval.
   b. Seed shall be endophyte-free.
   c. Seed shall be non-GMO.

4. Inoculum sources shall be species-specific and shall be applied at a rate of two (2) pounds of inoculum per one hundred (100) pounds of seeds.
   a. Legume seed shall be sown within ninety (90) calendar days after inoculation or shall be re-inoculated prior to sowing.
   b. Inoculated legume seed shall have a calcium carbonate coating.

B. Seed
   1. Seed shall be a fresh, clean, new crop mixed by dealer and packaged in dealer's unopened container with original label. Containers opened prior to inspection or without a label or tag will not be accepted. Each seed bag shall be delivered to Project site sealed and clearly marked as to the species, purity, percent germination, weed seed, inert material, dealer's guarantee, and date of test.
   2. All Contractor-provided seed shall comply with the California Seed Law. Commercially obtained seed shall be labeled under the California Food and Agricultural Code, and by the vendors supplying the seed. The percent of weed seed shall not exceed 1.5 percent by weight of the total seed mixture.
   3. Contractor-provided seed shall have been tested for purity and germination not more than fifteen (15) months prior to the application of the seed.
   4. Seeds shall be obtained from regionally appropriate sources. Seed collected from within coastal Humboldt County is preferable and seed from alternative coastal sources between San Francisco Bay and Coos Bay will be subject to HCRCD’s approval. Contractor shall coordinate with the HCRCD thirty (30) working days prior to seeding to obtain these approvals. Seed may be available from Pacific Coast Seed, 533 Hawthorn Place, Livermore, CA (925) 373-4417; Hedgerow Farms, 21740 County Road 88, Winters, CA (530) 662-6847; S & S Seeds, P.O. Box 1275 Carpinteria, CA (805) 684-0436; Larner Seeds, 235 Grove Rd, Bolinas, CA (415) 868-9407; Sunmark Seeds, 18032 NE Airport Way, Portland, OR (888) 214-7333; or approved equal.

2.03 WATER
A. Water shall be non-saline, suitable for agricultural use, shall be free of harmful substances that would adversely affect plant growth or vigor, and shall be as specified in SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS.
2.04 TACKIFIER
   A. Tackifier shall be non-asphaltic, non-toxic to plants and wildlife, and non-staining to rock surfaces. Tackifier shall be in powder form, may be re-emulsifiable, and shall be a processed organic adhesive derivative of *Plantago insularis* (per ASTM D7047-04) used as a soil binder, manufactured to be suitable for seeding applications.

2.05 FIBER
   A. Fiber material shall be wood cellulose fiber containing no growth or germination-inhibiting factors. Natural wood cellulose fiber shall have the property of dispersing readily in water and shall have no toxic effect when combined with other material. The homogenous slurry or mixture shall be capable of application with power spray equipment. A green colored dye which is non-injurious to seed growth shall be used. Wood cellulose fiber shall be packaged in new label containers marked by the manufacturer to show the air-dry weight content.

2.06 STRAW
   A. Straw shall be either rice or wheat derived from irrigated cropland. Straw shall not contain glass, plastic, metal, rocks, or other inorganic material. Straw shall not have been used previously for any other use and shall be certified weed free.

2.07 BROADCAST SEEDING EQUIPMENT
   A. An all-terrain vehicle (ATV) / tractor mounted or pulled broadcast spreader or “belly grinder” manual type seeder, or approved equal, shall be used to broadcast seed.

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL
   A. Contractor shall request and receive approval from the HCRCD prior to commencing soil preparation, seeding, and mulching work.
   B. Contractor shall inspect Project site and become familiar with any access requirements, access restrictions, and any other site conditions.
   C. Contractor shall notify the HCRCD, in writing, of soil conditions encountered that Contractor considers detrimental to the growth of plant material.
      1. When detrimental conditions are uncovered, planting shall be discontinued until instructions to resolve these conditions are received from the HCRCD.
   D. Work described in this SECTION shall not be performed during muddy or frozen conditions.
   E. Contractor shall coordinate with the HCRCD to schedule inspections at the following stages.
      1. Inspection during soil preparation.
      3. Inspection during seeding and mulching.
      4. Acceptance of seeding and mulching.
5. Acceptance of SWPPP Notice of Termination (NOT) per SECTION 02 27 00 EROSION CONTROL and these specifications.

F. Progress inspections: In addition to the inspections specified, the HCRCD may make periodic progress inspections.

G. The HCRCD reserves the right to take and analyze samples of materials for conformity to these Specifications at any time.

3.02 SOIL PREPARATION

A. Timing

1. Work in this SECTION shall not commence until:
   a. All earthwork has been completed and approved per 31 20 00 EARTHWORK.
   b. Contractor has requested and received approval from the HCRCD.

B. Layout

1. Soil preparation shall occur in all areas to be seeded as shown on the Plans, and any additional areas disturbed by construction (including non-paved access, staging, stockpiling, and haul routes necessary to access sediment application areas) to be seeded as specified herein.

2. Contractor shall coordinate with the HCRCD to confirm the limits of soil preparation.

C. Soil Preparation

1. Contractor shall review soil preparation areas for presence of rock, debris, chemicals, or other harmful substances and notify the HCRCD if such conditions are observed.

2. Contractor shall prepare the soil as follows in areas to be seeded:
   a. Scarify mechanically to a depth of two (2) inches using a spike harrow, lightweight ring-roller/cultipacker or by hand methods, and as approved by the Construction Manager.
   b. In areas where excessive compaction has occurred such as haul routes and staging areas, at the discretion of the Construction Manager, the Contractor shall disk or rototill a minimum fifteen (15) inches deep using conventional farming implements and then smooth with a ring-roller/cultipacker or harrow prior to seeding.
   c. In sloped areas of the graded corridor, harrowing shall be oriented parallel to slope contours.
   d. Contractor shall protect Work from ruts and compaction until seeding occurs per Sub-Section Broadcast Seeding.
3.03 BROADCAST SEEDING

A. General

1. Contractor may propose hydroseeding application as an alternative to broadcast seeding. Areas and methods shall be submitted to and are subject to HCRCD approval.

2. Contractor may propose drill seed application as an alternative to broadcast seeding. Areas and methods shall be submitted to and are subject to HCRCD approval.

B. Timing

1. Seeding shall occur upon completion of soil preparation work and upon request and receipt of approval by the HCRCD.

2. Seed shall be applied before the onset of winter rains.

3. Seeding shall be completed by 15 October, unless otherwise approved by the HCRCD.

4. Contractor shall coordinate with the HCRCD for pick-up and delivery of HCRCD-supplied seed and shall request Contractor-provided seed delivery from supplier no less than five (5) working days prior to application. Contractor shall keep all seed in a cool, dry, shaded place until utilized.

5. Contractor shall coordinate with the HCRCD no less than five (5) working days prior to seeding so that the HCRCD can be present during seed application.

6. Work shall be performed only at times when weather conditions at Project site are favorable. No Work shall be performed when wind conditions prohibit uniform distribution of seed unless approved by the HCRCD. No Work shall be performed and no equipment shall be operated when soils are saturated.

C. Layout

1. Seed shall be applied in accordance to the areas shown on Plans and any additional areas impacted by construction; including unpaved access, staging, stockpiling, and haul routes necessary to access to sediment application areas.

2. Contractor shall flag all seeding areas and the HCRCD shall approve all areas to be seeded prior to seeding.

3. Contractor shall limit foot and equipment traffic and storage of supplies in seeded areas.

D. Preparation of Seeding Areas

1. Soil preparation within seeding areas shall occur prior to broadcast seeding per Sub-Section Soil Preparation.

2. Clear all areas to be seeded of substantial debris and any other impediments to seed-soil contact.

E. Seed Application
1. Seed shall be delivered to the Project site in unopened separate containers with the seed tag attached. Containers without a seed tag attached will not be accepted.

2. Limit foot traffic or storage of supplies in seeded areas.

3. Apply the seed mix evenly and at the rates specified in the tables in Sub-Section Seed.

4. Any remaining seed shall be applied evenly to the areas shown on the Plans.

5. Contractor shall use appropriate equipment such as a rake or light harrow immediately after application to lightly to cover seed with 1/8-inch to ¼-inch layer of soil. Seed cover shall not exceed ¼ inch.

6. After the site has been seeded, straw shall be applied per sub-Section Straw and Tackifier Application.

3.04 STRAW AND TACKIFIER APPLICATION

A. General

1. Contractor may propose hydromulch application as an alternative to blown straw. Areas and methods shall be submitted to and are subject to HCRCD approval.

2. Contractor may propose crimping straw as an alternative to tackifying. Areas and methods shall be submitted to and are subject to HCRCD approval.

B. Timing: Straw and tackifier shall be applied within the same day following approval of seeding by HCRCD.

C. Layout:

1. Straw and trackifier shall be applied to all seeded areas.

D. Straw shall be applied as follows:

1. Straw shall be applied using a mechanical blower or by hand labor at a rate of 2,000 pounds per acre.

2. Straw shall be applied uniformly.

3. Where biodegradable mat and/or erosion control blanket are to be placed, only seed shall be applied, no straw

E. Non-asphaltic tackifier shall be applied to straw at a rate of 120 pounds per acre.

F. Fiber shall be applied (with the tackifier) at a rate of 500 pounds per acre.

3.05 FORCE GERMINATION OF SEED

A. At the Contractor’s discretion, force germination of seed may be performed to comply with the Project’s SWPPP requirements per SECTION 02 27 00 EROSION CONTROL. The following specifications shall apply to any force germination of seed.

B. Timing and Duration
1. Contractor shall commence force germination of seed following completion of broadcast seeding, straw, tackifier application, biodegradable mat installation, and erosion control blanket, and acceptance of this work by the HCRC.

2. All irrigation lines and appurtenances shall be kept out of the active channel after September 30.

C. Water Supply

1. Contractor shall coordinate with water source provider per SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS.

D. Application Method

1. Water shall be applied to the seeded areas using a temporary on-grade spray irrigation system sufficient to provide an even precipitation rate of 0.25 inches of water to all areas at a frequency of one event every three (3) days, or as otherwise approved by the HCRC.

   a. Contractor shall provide and install impact rotors in a quantity to cover seeded areas and sufficient to meet the specified precipitation rate.

   b. Prior to broadcast seed application, Contractor shall meet the HCRC onsite to determine the layout of the rotors. Following this meeting, Contractor shall submit a shop drawing showing the layout of all irrigation equipment, piping, and points of connection, as well as flow and demand calculations, for approval by the HCRC prior to installation of the system.

   c. Contractor shall prevent runoff during irrigation. Any runoff or bank erosion resulting from force germination that does occur shall be repaired to the design grade and reseeded per these specifications at no additional cost to the HCRC.

E. System Removal

1. Unless otherwise directed by the HCRC, Contractor shall remove all components of the temporary irrigation system following completion of force germination and acceptance of work.

3.06 SITE CLEANUP

A. Contractor shall cleanup following soil preparation, seeding, and mulching activities as follows and as directed by the HCRC:

1. Remove all containers, packaging, and other debris resulting from seeding operations.

2. Dispose of all debris legally at licensed disposal facilities.

3. Clean all surfaces not designated for treatment and remove all residues resulting from mixing, applying, or equipment flushing.

4. Remove temporary items.
B.  Seeded or mulched areas disturbed by subsequent construction activities shall be re-seeded or re-mulched within five (5) working days of the completion of such activities.

3.07 ACCEPTANCE OF SEEDING

A. Acceptance of Work:

1. The HCRCD will accept work when all improvements and corrective work have been performed as specified and to the satisfaction of the HCRCD, and the following has been achieved:

   a. Final stabilization as defined by the SWPPP and acceptance of the Notice of Termination (NOT) by the State Water Resources Control Board and in accordance to SECTION 02 27 00 EROSION CONTROL.

END OF SECTION 32 92 19
PART 6: PLANS
PART 7: SWPPP
Humboldt Country Resource Conservation District

Salt River Ecosystem Restoration Project
2019 Construction Phase
Stormwater Pollution Prevention Plan

Risk Level 2

May 2019

Prepared for:
Humboldt County Resource Conservation District

Prepared By:
GHD Inc.
718 Third Street
Eureka CA 95503
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Appendix L – Training Reporting Form
Appendix M – Responsible Parties
Appendix N – Contractors and Subcontractors
To Be Completed by Qualified SWPPP Developer

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

__________________________
Signature

May, 2019
Date

Jeremy Svehla, P.E., QSP/QSD #00459
Name and Title

(707) 443-8326
Telephone Number
1. **SWPP Requirements**

1.1 **Introduction**

The project is located along the Salt River near Ferndale, California.

The project owner is:

Humboldt County Resource Conservation District
5630 South Broadway
Eureka, CA 95503
Summer Daugherty
(707) 498-9716

The project Contractor is:

___________________________________
___________________________________
___________________________________
___________________________________

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared to comply with the California’s General Permit for *Stormwater Discharges Associated with Construction and Land Disturbance Activities* (General Permit), State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ as amended by Order no. 2010-0014-DWQ and 2012-006-DWQ. A copy of the General Permit is required to be kept on the project site at all times. For this reason, a copy of the General Permit is included in Appendix A of this SWPPP.

The Owner shall ensure that the SWPPPs for all traditional project sites are developed and amended or revised by a Qualified SWPPP Developer (QSD). The SWPPP shall be designed to address the following objectives (where applicable):

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;

2. Where not otherwise required to be under a Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;

3. Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best Control Technology (BAT/BCT) standard;

4. Calculations and design details as well as BMP controls for site run-on are complete and correct;

5. Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed, and

6. Identify and provide methods to implement BMP inspection, visual monitoring, Rain Event Action Plan (REAP) and Construction Site Monitoring Program (CSMP) requirements to comply with the General Permit.
Prior to construction, the Owner will file a Notice of Intent (NOI) to obtain coverage under the State General Permit. The Contractor is responsible for complying with the requirements of the SWPPP and General Permit including but not limited to: implementation and maintenance of BMP’s, and correcting any deficiencies identified by the Owner or the SWRCB/RWQCB at the Contractor’s expense.

### 1.2 Permit Registration Documents

To obtain coverage under the Construction General Permit, project related Permit Registration Documents (PRDs) must be submitted to the State Water Resources Control Board (SWRCB) via the Stormwater Multi Application and Report Tracking System (SMARTS) by the Project Legally Responsible Person (LRP) (General Permit Sections I.D.36, II.B, and Attachment B). Copies of filed PRDs and the Project’s Waste Discharge Identification (WDID) confirmation will be inserted in SWPPP Appendix C.

1. Notice of Intent (NOI);
2. Risk Assessment (Construction Site Sediment and Receiving Water Risk Determination);
3. Site Map;
4. Annual Fee; and
5. Signed Certification Statement.

This SWPPP is also required to be filed electronically and has been submitted to the SWRCB as a PRD. It should be noted that additional PRDs may be required depending on the construction type and location.

### 1.3 SWPPP Availability

The SWPPP will be kept at the construction site at all times. It shall be made available upon request by a State or Municipal inspector. The SWPPP shall be implemented concurrently with the start of ground disturbing activities.

### 1.4 SWPPP Amendments

The General Permit requires that the SWPPP be amended or revised by a QSD (Section XIV.A) and that the SWPPP include a listing of the date of initial preparation and the date of each amendment. Amendments must be signed by a QSD (Section VII.B.6). All amendments shall be dated, and directly attached to the SWPPP, and logged in the SWPPP (Appendix D).

The Contractor shall coordinate with the Owner for updates to the SWPPP to reflect modifications to stormwater control measures made in response to a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants from the project site that has not been previously addressed in the SWPPP. The Owner will ensure that a Qualified SWPPP Developer (QSD) make immediate changes to the SWPPP when deficiencies are discovered.

### 1.5 Retention of Record

All records related to the SWPPP shall be maintained for three years from the date generated or date submitted, whichever is last (Sections I.J.69 and IV.G). These records must be available at the
construction site until construction is completed. The Owner and Contractor shall furnish the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB) or US Environmental Protection Agency (EPA), within a reasonable time, any requested information to determine compliance with this General Permit.

1.6 Required Non-compliance Reporting

The Owner will properly document reportable discharges or other violations of the General Permit. Exceedances and violations shall be reported using the SMARTS system and shall include the following:

- Numeric Action Level (NAL) exceedances (NAL Exceedance Report upon request of the RWQCB);
- Self-reporting of any other discharge violations or to comply with RWQCB enforcement actions; and
- Discharges which contain a hazardous substance in excess of reportable quantities established in 40 CFR §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

1.7 Annual Report

The General Permit requires the permittee (Owner) prepare, certify, and electronically submit an Annual Report no later than September 1st of each year. The permit is active through the SMARTS site (http://smarts.waterboards.ca.gov/). The first report is due September 1st of the calendar year in which construction begins. Reporting requirements are identified in Section XVI of the General Permit Section 7.9.4 of this SWPPP.

1.8 Changes to Permit Coverage

The General Permit (Section II.C) allows a permittee to reduce or increase the total acreage covered under the General Permit when a portion of the project is complete and/or conditions for termination of coverage have been met; when ownership of a portion of the project is sold to a different entity; or when new acreage is added to the project.

To change the acreage covered, the permittee must electronically file modifications to PRDs (revised NOI, site map, SWPPP revisions as appropriate, and certification that new landowners have been notified of applicable requirements to obtain permit coverage (including name, address, phone number, and e-mail address of new landowner) in accordance with requirements of the General Permit within 30 days of a reduction or increase in total disturbed area.

Include any updates to PRDs submitted via SMARTS in the SWPPP (Appendix F). Document any related SWPPP revisions/amendments (Section II.C.2) in the SWPPP Amendment Log (Appendix D).

1.9 Notice of Termination

To terminate coverage under the General Permit, a Notice of Termination (NOT) must be submitted electronically via SMARTS. A “final site map” and photos are required to be submitted with the NOT. Filing a NOT certifies that all General Permit requirements have been met. The Owner will submit the NOT when the construction project is complete and within 90 days of meeting all General Permit requirements for termination and final stabilization (Section II.D) including:
• The site will not pose any additional sediment discharge risk than it did prior to construction activity.

• All construction related equipment, materials and any temporary BMPs no longer needed are removed from the site.

The NOT must demonstrate through photos, Revised Universal Soil Loss Equation (RUSLE) results, or results of testing and analysis that the project meets all of the requirements of Section II.D.1 of the General Permit by one of the following methods:

• 70% final cover method (no computational proof required); or

• RUSLE/RUSLE2 method (computational proof required); or

• Custom method (discharger demonstrates that site complies with final stabilization).

1.10 References

The following documents are made a part of this SWPPP by reference:

• Project plans and specifications.


2. Project Information

2.1 Project Site-Description

The Salt River Ecosystem Restoration Project (Project) is located in Humboldt County, California, near the City of Ferndale in the lower Eel River Valley watershed. The project includes two phases:

1) Riverside Ranch Tidal Marsh Restoration
2) Salt River Channel and Riparian Floodplain Corridor Restoration

The project includes the following goals:

1. Restore the Salt River channel and adjacent riparian floodplain by increasing hydraulic conveyance and constructing habitat features that re-establish ecological processes beneficial to fish and other native species;
2. Restore former estuarine habitat and tidal connectivity within the lower Salt River;
3. Improve water quality and drainage efficiency across the floodplain;
4. Manage excess sediment loads by maximizing fluvial and tidal channel sediment transport capacity by designing and maintaining active and passive sediment management areas that minimize long-term impacts to land use and ecological function;
5. Initiate a long-term corridor adaptive management process that maximizes ecological restoration success in a working landscape by:
   (a) Reducing headwater erosion and sediment delivery to the Salt River floodplain;
   (b) Increasing the volume and efficiency of clear water drainage from the upstream watershed and adjacent agricultural land, and;
   (c) Providing and maintain sediment management areas that minimize impacts to land use and ecological function.

Phase 1 was completed in 2013. Construction of Phase 2 will be phased over multiple years. Lower Phase 2A, Middle Phase 2A and Upper Phase 2A were constructed in 2014, 2015, and 2017/2018 respectively. 2019 construction phase (summer 2019) will include approximately 5,000 linear feet of Salt River construction. 2019 construction phase is covered under this SWPPP.

Sediment excavated from the 2019 construction phase Salt River channel will be hauled and applied to nearby agricultural lands for soil amendment. All channel earthwork activities and temporary stockpiling are covered under the CGP however the application of the excavated sediment on the agricultural fields is not. Per section ii,c,1,b of the State Water Resources Control Board NPDES General Permit for Storm Water discharges (Order No. 2009-0009 DWQ, NPDES No. CAS0000002), activities associated with disturbance to land surfaces solely related to agricultural operations such as diskng, harrowing, terracing and leveling, and soil preparation are not covered under the general permit and therefore not covered under this SWPPP. Standard erosion control BMPs will be implemented during the hauling, windrowing and placement of the excavated sediment on the agricultural uplands to minimize wind and rain induced erosion and protect water quality. The minimum BMPs associated with the application areas have been shown on the plans and will be the contractor’s responsibility to implement additional BMPs as needed and under the direction of the Construction Manager.
Placement of excavated sediment on agricultural uplands (zoning designation: AE – Agriculture Exclusive) is consistent with the definition of General Agriculture (Humboldt County Zoning Regulations: 314-170.1 – General Agriculture). General Agriculture is a principally permitted use within the Agriculture Exclusive zoning designation. The County of Humboldt has recognized that placement of the excavated sediment on nearby pastures to amend agriculture upland soil is consistent with the principally permitted use of agriculturally zoned parcels, and therefore the conditional use permit issued by the County of Humboldt for this project does not cover those parcels that are receiving excavated materials only.

2.2 Regional Geomorphic and Tectonic Setting

As described in previous Salt River Ecosystem Restoration Project SWPPPs, the project area is located in the northern Coast Ranges Geomorphic Province, northeast of Cape Mendocino, within the on-land portion of the accretionary prism of the Cascadia subduction zone (Clark, 1987; Clark and Carver, 1992;). The regional geologic and tectonic framework of the project area is complex and driven by two primary plate boundary features: the Cascadia subduction zone to the west; and the San Andreas Fault system to the south. These fault systems meet at the Mendocino Triple Junction (MTJ) approximately 30 km south of the project area (Kelsey and Carver, 1988; Williams, 2003;), and the resulting complex contractional deformation in the North American plate is manifest as active northwest-striking thrust faults and fault-related folds in the Humboldt Bay region (Kelsey and Carver, 1988; McCrory, 2000;). Deformation of Neogene rocks (Wildcat Group and Falor Formation) as well as Pleistocene marine terrace deposits attests to ongoing tectonic activity over the last million years and provide two regionally identified unconformities that have be used as datums to evaluate long term slip rates on local faults (McCrory, 1996). The Eel River Syncline is the major structural feature dominating the area.

2.3 Local Geologic Setting

Based on geologic mapping of the area (Ogle, 1953; McLaughlin et al, 2000) and as stated in the Phase 1 SWPPP the project area is underlain by Quaternary alluvium (Qal) of the Eel River Valley. It has been further described as Holocene-Pleistocene floodplain and marine terrace deposits (Qfp-Qmts) consisting of sand, silt, and gravel deposited in marine, estuarine and fluvial environments (CDMG, 1984). Alluvial sediments in the project area are derived from both the mainstem Eel River as well as from erosion of sedimentary rocks of the Tertiary Wildcat group (Tw) transported from nearby upslope sources in the Salt River watershed. Subsurface soil investigations conducted by KHE in 2005 and again by LACO Associates in 2012 support local geologic mapping of the area, with primary soils consisting of a gradation of coarse to fine grained, unconsolidated deposits of clays to sands including Universal Soil Classification System types: ML, CL, SP and SM (LACO Associates, 2012).

2.4 Stormwater Run-on from Offsite Areas

Williams Creek is the primary tributary that discharges into the mainstem Salt River upstream of the 2019 construction phase project boundary.

There are other small un-named drainages that contribute overland runoff into the Salt River from adjoining agricultural lands however these small drainages are seasonal and only generate flow after extended periods of rainfall.

Prior to construction activities, a coffer dam will be placed at the downstream boundary of the 2019 construction phase construction area to prevent tidal water from entering the construction area.
### 2.5 Findings of the Construction Site Sediment and Receiving Water Risk Determination

A project Risk Level Determination was completed using the Risk Determination Worksheet provided in the CGP Order # 2009-0009-DWQ. The Risk Level Determination worksheet has been electronically submitted into the SMARTS database. Below is a summary of the Risk Level Determination results.

**Sediment Risk Watershed Erosion Estimate = R x K x LS**, where

- **R** = Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor (R) composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. The EPA NPDES rainfall erosivity calculator (linked below) was used to determine the R factor for the project site. EPA’s online rainfall erosivity factor calculator is currently under construction, so the Construction Rainfall Erosivity Waiver Fact Sheet (PDF) was used to assist in determining the R Factor:
  
  http://www.epa.gov/npdes/pubs/fact3-1.pdf

- **K** = The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because high infiltration rates results in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rainfall rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. The link below was used to determine the K factor for the project site:


- **LS** = The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillside length and/or hillside gradient increase, soil loss increases. As hillside length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillside gradient increases, the velocity and erosivity of runoff...
increases. Use the LS table located in separate tab of this spreadsheet (see link below) to determine LS factors. Estimate the weighted LS for the site prior to construction. The link below was used to determine the LS factor for the project site:


• Sediment Risk Determination for the Phase 2 Salt River Ecosystem Restoration Project:

  Low Sediment Risk: < 15 tons/acre
  Medium Sediment Risk: > 15 and < 75 tons/acre
  High Sediment Risk: > 75 tons/acre

  1) \( R = 22.56 \)
  2) \( K = 0.43 \)
  3) \( LS = 0.62 \)
  \( R \times K \times LS = 6.01 \text{ tons/acre} \)

  LOW SEDIMENT RISK

• Receiving Water Risk Determination for the Phase 2 Salt River Ecosystem Restoration Project:

  The project: 1) Does discharge sediment to a 303(d)-listed water body impaired by sediment, and 2) does not discharge to a waterbody with designated beneficial uses of SPAWN, MIGRATORY & COLD as listed in the following website database:


  therefore:

  HIGH RECEIVING WATER RISK

• Combined Project Risk Determination for the Phase 2 Salt River Ecosystem Restoration Project:

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<th>Sediment Risk</th>
</tr>
</thead>
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<td>Low</td>
<td>2</td>
</tr>
<tr>
<td>High</td>
<td>2</td>
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</tbody>
</table>

**Table 3.2.1.1  CASQA Risk Level Assessment Matrix**

**Combined Project Risk = LEVEL 2**
This SWPPP has been prepared to comply with the Risk Level 2 requirements of the General Permit. Attachment B of the General Permit provides a detailed summary of the requirements needed to comply with a Risk Level 2 site designation.

2.6  Construction Schedule

The General Permit requires that the SWPPP include a construction activity schedule that describes all major activities such as mass grading and paving at the site and the proposed time frame to conduct those activities. The Contractor shall provide the Owner with a construction schedule to be included in this SWPPP (Appendix G). Recommended minimum information includes the anticipated start and end dates of construction and well as phases of significant grading activities and work near drainages or receiving waters. The schedule shall be reviewed and approved by HCRCD prior to incorporation into the SWPPP.

2.7  Potential Construction Site Pollution Sources

The General Permit (General Permit Attachments C, Section B.5) requires that permittees conduct an assessment and create a list of potential pollutant sources and identify areas of the site where additional BMPs are necessary to reduce or prevent pollutants in discharges. These pollutants and potential pathways must be considered when developing BMPs in accordance with General Permit requirements.

The main pollutant of concern at this site is sediment associated with erosion from earthwork activities. Excess soils from these construction activities may also be stockpiled on site prior to being off-hauled and disposed. These sources and associated BMPs are outlined below. Details of the BMPs are provided in Section 3 of this SWPPP.

1.  Grubbing and Grading Operations
    Pollutant of Concern: Sediment
    BMPs:  1) Scheduling of work
            2) Minimize earthmoving and vegetation removal
            3) Stabilize construction entrances with rock
            4) Stabilize other disturbed areas with seed and mulch
            5) Silt fences
            6) Fiber roles
            7) Dewatering operations

2.  Vehicle & Equipment Operation
    Pollutant of Concern: Hydrocarbons from refuelling activities and leaks; tracking of sediment
    BMPs:  1) Temporary gravel construction entrance/exit for sediment tracking control
            2) Good housekeeping measures including vehicle and equipment cleaning, fuelling, and maintenance
            3) Spill prevention and response

3.  Temporary Soil Stockpile Areas
    Pollutant of Concern: Sediment
    BMPs:  1) Seed/mulch
            2) Silt fences or fiber roles
Other potential pollutants of concern include pH and construction debris associated with concrete work, vehicle and equipment operation, and miscellaneous construction materials. The Contractor shall implement the following minimum BMPs to address these potential pollutant sources. Details of the BMPs are provided in Section 3 of this SWPPP.

1. Concrete Work (As Needed)
   Pollutant of Concern: pH, Lime
   BMPs:  
   1) Scheduling
   2) Concrete washout areas
   3) Material storage and concrete waste management
   4) Good housekeeping measures including materials management and waste disposal

2. Vehicle & Equipment Operation
   Pollutant of Concern: Hydrocarbons from refuelling activities and leaks; tracking of sediment
   BMPs:  
   1) Temporary gravel construction entrance/exit for sediment tracking control
   2) Good housekeeping measures including vehicle and equipment cleaning, fuelling, and maintenance
   3) Spill prevention and response

3. Miscellaneous Construction Materials and Debris
   Pollutant of Concern: Various/General
   BMPs:  
   1) Good housekeeping measures including materials management and waste disposal

The Contractor shall provide (at no additional cost) additional BMPs necessary to comply with the General Permit, or as directed by the HCRCD or County.

2.8 Identification of Non-stormwater Discharges

The General Permit requires (Section XIV.A.2 “SWPPP Requirements”) that the discharger (Owner) identify all non-stormwater discharges (where not otherwise required to be under a Regional Water Quality permit) and that discharges be eliminated, controlled, or treated.

Potential non-stormwater discharges for the project include waters from the rinsing or washing of vehicles, equipment, buildings, or pavements; and materials that have been improperly disposed of or dumped, spilled, or leaked materials. Unauthorized non-stormwater discharges can contribute a significant pollutant load to receiving waters. Unauthorized non-stormwater discharges (even when commingled with stormwater) shall be eliminated or covered by a separate NPDES Permit.

In general, good housekeeping practices and erosion control prevention (as described in Section 3 of this SWPPP) are the main BMPs utilized to control non-stormwater discharges. The objectives of good housekeeping practices and erosion control prevention revolve around preventing pollutants from becoming mobile with stormwater. Non-stormwater discharges shall be noted on inspection forms.

Awareness by all site personnel of the importance of eliminating non-stormwater discharges is often the key to eliminating any problems. The Contractor shall make every effort to eliminate or minimize non-stormwater discharges by their own actions and by directing other individuals on the construction site.
3. **Best Management Practices**

This section describes the minimum BMPs to be used on the project. The Contractor shall be responsible for the implementation and maintenance of BMPs, as well as training Contractor personnel. The Contractor shall also work with the Owner to continually evaluate the BMPs used for effectiveness. The Contractor may be required to take additional measures to ensure that no sediment laden water or other pollutants exit the site or enter existing stormwater systems.

### 3.1 Schedule for BMP Implementation

Stormwater pollution control measures shall be implemented on a year-round basis at an appropriate level to comply with the General Permit. BMPs must be implemented in a proactive manner during all seasons while construction is ongoing. The BMP Implementation Schedule is included in Appendix G, and shall be updated by the Contractor during construction.

### 3.2 Good Housekeeping BMPs

The BMPs described in this section shall be utilized throughout the site and are intended to limit contact between stormwater and potential pollutants. Site-specific sediment and erosion control BMPs are addressed in other sections of this SWPPP.

A significant amount of sediment control and stormwater pollution prevention can be achieved through the use of good housekeeping BMPs and good planning in the scheduling and execution of the work. Good housekeeping involves keeping a clean, orderly construction site, and storing potential stormwater pollutants in the appropriate manner. General site BMPs consist of the proper scheduling and execution of the work to prevent stormwater impacts. The following are BMPs that should be executed throughout the performance of the work. At a minimum the contractor shall implement the Good Site Housekeeping BMPs for conformance to the requirements in Attachment D of the General Permit (Appendix A).

#### 3.2.1 Scheduling Work

The site shall be secured with various BMPs employed as appropriate to minimize erosion and prevent sediment discharge from the project site in the event of summer rainstorms, when rainfall is forecast, or at the latest by October 15th. When rainfall is forecast, the construction schedule shall be adjusted by the Contractor to allow the implementation of erosion and sediment controls on all disturbed areas prior to the onset of rains.

The Contractor shall be prepared year-round to deploy erosion and sediment control and sediment treatment control practices. Erosion may be caused during the dry season by unseasonal rains, winds, and vehicle tracking. Keep the site stabilized year-round, and retain and maintain rainy season sediment trapping devices in operational condition.

Routinely verify that the work is progressing in accordance with the schedule. If progress deviates, take corrective actions to ensure that the work is completed prior to the onset of the rainy season, if at all possible. Additional guidelines for scheduling are described in BMP Fact Sheet EC-1 provided Appendix I.
3.2.2 Concrete Waste Management

The Contractor shall work with the Owner to designate an area to be used for washout of transit mix trucks and other vehicles used to transport, mix, or move concrete. The area shall be located at least 50 feet away from storm drain inlets or drainage facilities and away from the concrete truck access area so that construction traffic will not drive through wash waters. The wash out area shall have a bermed and lined area of sufficient volume to completely contain all liquid and waste concrete material. The area will be flagged off with stakes and surveyor tape, or similar methods, and signed as necessary to inform truck drivers and workers of its location.

Do not allow slurry residue from concrete to enter storm drainages. Additional guidelines for concrete waste management are described in BMP Fact Sheets WM-8, NS-3, -12, -13, -15, and 16 provided in Appendix I.

3.2.3 Materials Management

The Contractor shall provide protected (covered) storage areas for any potentially toxic materials (concrete, herbicides, pesticides, fertilizer, grease, oils, fuel, paints, stains, solvents, wood preservatives, etc.). Ensure that these materials are protected from vandalism, and that all lids and covers are securely fastened. Clearly mark all hazardous material containers.

Bags of mortar, concrete, or other supplies shall be placed on pallets and covered with tarps so that if precipitation does occur, these materials will not be exposed to stormwater and become a stormwater pollutant.

Minimize the production or generation of hazardous materials and wastes at the site. Do not allow them to accumulate on the ground. Schedule regular pick up of used materials by licensed waste haulers and ensure proper disposal.

All hazardous material containers shall be placed in secondary containment. Ensure that adequate secondary containment volume is provided for hazardous materials and that they are located in areas on the site away from stormwater drains or watercourses. Segregate potentially hazardous waste from non-hazardous construction debris. Provide berms, if necessary, to prevent stormwater run-off from contacting the storage area. Also, use containment berms in fuelling and maintenance areas and where the potential for spills is high. Additional guidelines for hazardous waste management are described in BMP Fact Sheet WM-6 provided in Appendix I.

3.2.4 Waste Disposal

The Contractor shall provide waste receptacles for common solid wastes at convenient locations on the job site and provide regular collection of wastes, including building materials. Provide cover for receptacles or piles of waste prior to rain events. Do not allow crew to discard miscellaneous trash on the project site. Additional guidelines for solid waste management are described in BMP Fact Sheet WM-5 provided in Appendix I.

3.2.5 Off-Site Tracking

The Contractor shall minimize off-site tracking of sediments. Common sources are wheels and vehicles entering and leaving the site. The Contractor shall construct a temporary gravel construction entrance/exit BMP at the site and shall inspect all immediate access roads daily. The Contractor shall remove any sediment or other construction activity-related materials that are deposited on the roads by vacuuming or sweeping on a daily basis (when necessary) and prior to any rain event. The sediments shall not be washed into storm drains or other watercourses.
Regularly inspect the entrance and exit for damage and repair promptly. Additional guidelines for tracking control are described in BMP Fact Sheets TC-1, TC-3 and SE-7 provided in Appendix I.

3.2.6 Spill Prevention and Response

The Contractor shall make adequate preparations, including training personnel and providing equipment, to contain and/or clean up spills of oil and other hazardous materials. Ensure that adequate materials such as absorbents, berms, dry sweep shovels, brooms, and absorbent pads are on hand to clean up any accidental spill that may occur. Spills of hazardous materials can originate from fuelling, equipment breaking down (such as hydraulic lines), material transfer operations, and other sources. Clean up such spills immediately and properly dispose of all wastes and used spill control materials. Additional guidelines for spill prevention and control are described in BMP Fact Sheet WM-4 provided in Appendix I.

3.2.7 Available Erosion Control Supplies

The Contractor shall ensure that sufficient erosion control supplies shall be available on site at all times to deal with areas susceptible to erosion during rain events. Materials should include plastic tarps, geofabric, woven coconut fronds, coir rolls/straw wattles, jute netting, erosion control matting, silt fencing, straw mulch or other suitable materials.

3.2.8 Non-Stormwater Discharges

Activities such as vehicle washing, bucket rinsing, paintbrush cleaning, etc. shall be carried out at an approved facility (i.e. car wash or interior sink), wherein the water is discharged into a sanitary sewer. Non-stormwater discharges should be eliminated or reduced to the extent feasible. The Contractor shall designate a qualified person with the responsibility for ensuring that no materials other than stormwater are discharged in quantities, which will have an adverse effect on receiving waters or storm drain systems. See the Non-Stormwater Management section of this SWPPP (Section 3.5) for additional information as well as the non-stormwater management BMPs provided in Appendix I.

3.2.9 Sanitary Waste Management

The Contractor shall provide sanitary facilities of sufficient number and size to accommodate construction crews. Locate the sanitary facilities in a convenient location, but away from storm drain inlets and drainage facilities. Anchor the facilities sufficiently to prevent them from being blown over or tipped by vandals. Ensure that the facilities are maintained in good working order and emptied at regular intervals by a licensed sanitary waste hauler. Additional guidelines for sanitary waste management are described in BMP Fact Sheet WM-9 provided in Appendix I.

3.2.10 Vehicle and Equipment Fuelling

On-site vehicle and equipment fuelling should only be used where it’s impractical to send vehicles and equipment off site for fuelling. The Contractor shall designate an area for equipment fuelling and maintenance away from storm drain inlets or drainage channels. The fuelling area shall be located on a paved surface (if practical) and shall be protected with berms to prevent run-on and run-off and contain spills. Secondary containment techniques such as drip pans or drop cloths shall be used when fuelling to catch drips or leaks. All fuel shall be completed a minimum of 100-ft from coastal waters and in accordance to the spill prevention plan. Additional guidelines for vehicle and equipment fuelling are described in BMP Fact Sheet NS-9 provided in Appendix I.
3.2.11 Vehicle and Equipment Cleaning

Off-site commercial washing businesses are equipped to handle and dispose of wash water properly and are to be used for vehicle and equipment cleaning as much as possible. If vehicle and equipment washing and cleaning must occur on site and cannot be performed in a building equipped with sanitary sewer facilities, the outside cleaning area shall be located away from storm drain inlets and drainage facilities. The wash area shall be stabilized with aggregate base, and bermed to prevent run-off and run-on. The drainage area shall be outfitted with a sump to allow for the collection and disposal of wash water. Wash water is not to be disposed of in storm drains or watercourses.

The wash area shall be used as little as possible, while using the minimum amount of wash water and soaps necessary. Power washers tend to use less water and should be considered. Steam cleaning is not to be performed at any time. Cleaning solvents shall never to be used on-site. Additional guidelines for vehicle and equipment cleaning operations are described in BMP Fact Sheet NS-8 provided in Appendix I.

3.2.12 Vehicle and Equipment Maintenance

Perform vehicle maintenance off site whenever practical. The Contractor shall coordinate with the Owner and designate the on-site vehicle and equipment maintenance areas away from storm drain inlets and watercourses. Locate the maintenance areas on paved surfaces if practical and use protect the maintenance area from stormwater run-on and run-off.

Properly dispose of used oils, fuels, and lubricants. Do not dump fuels or lubricants on the ground, place in dumpsters, or pour into storm drains or watercourses. Properly dispose of or recycle batteries and other waste products.

Repair leaks of fluids and oil immediately. Place drip pans under vehicles with leaks while they are awaiting repair. Promptly empty drip pans in proper waste containers.

Regularly inspect vehicles and equipment for leaks or potential leaks. Perform regularly scheduled preventative maintenance, preferably off site. Inspect the maintenance area regularly and clean up any spills or leaks immediately. Maintain an adequate supply of spill cleanup materials in the maintenance area at all times. Additional guidelines for vehicle and equipment maintenance are described in BMP Fact Sheet NS-10 provided in Appendix I.

3.3 Erosion Control BMP’s

Erosion control, also referred to as “soil stabilization” is the most effective way to retain soil and sediment on the construction site. The most efficient way to address erosion control is to preserve existing vegetation where feasible, to limit disturbance, and to stabilize and re-vegetate disturbed areas as soon as possible after grading or construction.

At a minimum, the Contractor shall implement an effective combination of erosion and sediment control on all disturbed areas. Until permanent vegetation is established, soil cover is the most cost-effective and expeditious method to protect soil particles from detachment and transport by rainfall. Temporary soil stabilization can be the single-most important factor in reducing erosion at construction sites.

The following section includes a description of the erosion control practices to be implemented during construction to minimize erosion on disturbed areas of the construction site. The Contractor must consider the full range of erosion control BMPs as well as any additional site-specific and
seasonal conditions when selecting and implementing appropriate BMPs. The following erosion control measures are examples of what should be considered, and are not inclusive of new or innovative approaches currently available or being developed. At a minimum the Contractor shall implement the Erosion Control BMPs for conformance to the requirements in Attachment D of the General Permit (Appendix A).

3.3.1 Scheduling Work

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project especially during rainy season. This project is scheduled to be constructed in the summer season with all work completed prior to the onset of the rainy season, which begins on October 15th. When rainfall is forecast, the construction schedule is to be adjusted to allow the implementation of erosion and sediment controls on all disturbed areas prior to the onset of rains.

3.3.2 Minimize Earthmoving and Vegetation Removal

Vegetation removal and other construction activities shall be restricted to the minimum area necessary to complete the project. This work should be phased when practical to minimize disturbed areas. Additional guidelines for the preservation of existing vegetation are described in BMP Fact Sheet EC-2 provided in Appendix I.

3.3.3 Site Stabilization and Seeding

All areas of soil disturbance shall be seeded and mulched in accordance to the plans and specifications. Mulching should be done at an adequate time to develop a uniform cover (70% or greater) before the seasonal rains begin. If this is not possible at the site due to the construction schedule of the project, the Contractor shall implement temporary soil stabilization measures until the vegetative cover develops. The Contractor shall consider measures such as: covering with mulch, temporary seeding/vegetation, soil stabilizers, binders, fiber rolls, blankets, or permanent seeding.

Seeding and mulching should be done as soon as operations are completed. Proper and timely attention shall be taken to avoid erosion. Erosion control and seed establishment can be enhanced with the use of surface roughening followed by seeding and mulching.

Guidelines for site stabilization and seeding operations are described in BMP Fact Sheets EC-3 through EC-8 provided in Appendix I.

3.3.4 Exposed Area Limitations

The amount of disturbed area is to be minimized to the extent possible in order to minimize potential impacts. Exposed areas should be re-vegetated by seeding and mulching.

The occurrence of windy days may also require water to be sprayed onto exposed surface areas for dust control. These areas could include dirt roads, soil disposal areas, or other graded surfaces. Care should be taken not to create run-off from the application of excessive quantities of water, or to increase vehicle track-out of sediment from this activity. Guidelines for wind erosion controls are described in BMP Fact Sheets WE-1 Appendix I.
3.3.5 Stockpiled Soils

The Contractor shall work with the Owner to designate an area to be used for stockpiled soils. Spoils generated during utility installation and other activities must be securely stockpiled at the site. In the event of rain, care shall be taken to prevent erosion and sediment transport from stockpiled areas. Stockpiles should be securely covered and placed away from drainage channels, preferably in areas with some natural vegetation in place. Silt fences shall be installed around the soil stockpile areas in the event of extended heavy rainfall. Silt fence construction and maintenance is further discussed in the Sediment Control section of this SWPPP. Uncovered soil stockpiles are to be wetted as needed during windy days to prevent wind erosion. Additional guidelines for stockpile management procedures are described in BMP Fact Sheet WM-3 provided in Appendix I.

3.4 Sediment Control BMP’s

The Contractor shall make every effort to utilize good housekeeping and erosion control BMPs to eliminate erosion and reduce the need for sediment control. Sediment control devices are intended to help mitigate sediment laden stormwater run-off. The following sediment control BMPs shall be incorporated to limit both on-site and off-site transport of suspended sediments. At a minimum the Contractor shall implement the Sediment Control BMPs for conformance to the requirements in Attachment D of the General Permit (Appendix A).

3.4.1 Silt Fences

Prior to construction, silt fences shall be installed as necessary and where necessary to reduce sediments from accumulating and traveling off site. At a minimum, this includes the locations shown on the Plans. Silt fences are to be placed along a level contour except at the ends, which should be returned uphill in a “J” hook formation to prevent water and sediment from flowing around the fence. The silt fencing shall be maintained throughout construction. Repair undercut fences and repair or replace split, torn, slumping, or weathered fabric. Remove and properly dispose of sediment when it reaches one-third of the fence height. Silt fences shall not be removed until the area draining to the silt fence has stabilized and approved by the Owner, and accumulated materials have been removed. Fill and compact post holes, anchorage trench and grade fence alignment to blend with adjacent ground. Additional guidelines for silt fence installation and maintenance are described in BMP Fact Sheet SE-1 provided in Appendix I.

3.4.2 Fiber Rolls

Fiber roles shall be installed as necessary and where necessary to reduce sediments from accumulating and traveling off site. At a minimum, this includes the locations shown on the Plans and other areas directed by the Construction Manager to prevent rill erosion. Fiber Rolls are to be placed along a level contour except at the ends, which should be returned uphill in a “J” hook formation to prevent water and sediment from flowing around the fiber roll. The fiber roles shall be maintained throughout construction. Additional guidelines for installation and maintenance are provided in Appendix I.

3.4.3 Dewatering Operations

Appropriate dewatering operations and practices shall be utilized in the event that accumulated water must be removed from a work location so that construction work may be accomplished, such as the collection of rainwater in a utility trench. An appropriate dewatering operation shall be used...
to transfer the water to adjacent vegetative areas or Baker tank where solids can settle out. Direct discharge of stormwater from the channel shall not be allowed.

All dewatering and clear water diversion activities shall be carried-out in accordance to the 401 Water Quality Certification.

Non-stormwater cannot be discharged without prior notice to and approval from the RWQCB and/or local stormwater management agency. This includes stormwater that is co-mingled with groundwater or other non-stormwater sources. Guidelines for dewatering operations are provided in BMP Fact Sheet NS-2 provided in Appendix I.

3.5 Non-Stormwater and Materials Management

The General Permit requires (Section XIV.A.2) that SWPPPs be prepared to address the following objective: “to identify all non-stormwater discharges (where not otherwise required to be under a Regional Water Quality permit) and that discharges be eliminated, controlled, or treated.” Potential non-stormwater discharges at the project site include waters from the rinsing or washing of vehicles, equipment, buildings, or pavements; and materials that have been improperly disposed of or dumped, spilled, or leaked materials. Unauthorized non-stormwater discharges can contribute a significant pollutant load to receiving waters. Unauthorized non-stormwater discharges (even when commingled with stormwater) shall be eliminated or covered by a separate NPDES Permit.

In general, good housekeeping practices and erosion control prevention (as described in Sections 3.2 - 3.4 of this SWPPP) are the main BMPs utilized to control non-stormwater discharges. The objectives of good housekeeping practices and erosion control prevention revolve around preventing pollutants from becoming mobile with stormwater. Prevention is the best solution. All non-stormwater discharges shall be noted on inspection forms.

Awareness by all site personnel of the importance of eliminating non-stormwater discharges is often the key to eliminating any problems. The Contractor shall make every effort to eliminate or minimize non-stormwater discharges by their own actions and by directing other individuals on the construction site to do the same. At a minimum the Contractor shall implement the Non-Stormwater Materials Management BMPs for conformance to the requirements in Attachment D of the General Permit (Appendix A). See the non-stormwater management BMPs provided in Appendix I for additional guidance.

3.6 Post-Construction Stormwater Management Measures

The General Permit requires that all dischargers implement BMPs to reduce pollutants in stormwater discharges that are reasonably foreseeable after all construction phases have been completed at the site. “Post-construction” is defined as the period of time after construction has been completed and the SWRCB has approved the Notice of Termination. The following are the post-construction control measures that are to be used at this construction site after all construction is complete:

- Re-vegetation/landscape
- 10-year Adaptive Management Plan and the Habitat Mitigation and Monitoring Plan

The HCRCD and Salt River Watershed Council are responsible for long-term post-construction maintenance and re-vegetation.
4. **BMP Inspection Maintenance, and Rain Event Action Plans**

4.1 **BMP Inspection and Maintenance**

The General Permit requires (Attachment D; Section G.5, Appendix A) that completed inspection checklists be maintained with the on-site SWPPP. In general the information required to be recorded for BMP/facility inspections includes: the date of the inspection, weather information, site information, observations, descriptions of the inspected BMPs and any deficiencies or corrective actions taken, photographs, the inspectors name, title, and signature.

**Inspections by the Owner** shall be conducted as follows (refer to SWPPP Section 7.2):

- Prior to a forecast storm;
- After a rain event that causes runoff from the construction site;
- Daily (every 24 hours) during rain events;
- Weekly,
- Quarterly for non-stormwater-inspections.

All BMP inspections must be documented on the inspection checklist included in Appendix J. Copies of the completed checklists shall be kept with the SWPPP in Appendix J. A tracking or follow-up procedure shall follow any inspection that identifies deficiencies in the BMPs.

If deficiencies are identified during BMP inspections, repairs or design changes to BMPs must be initiated by the Contractor within **72 hours** of identification and need to be completed as soon as possible. SWPPP amendments, if warranted by the problem encountered and corrective action required, shall be signed by a Qualified SWPPP Developer.

4.2 **Rain Event Action Plans (REAPs)**

Rain Event Action Plans (REAPs) shall be developed by the Owners Qualified SWPPP Practitioner (QSP) for each phase of construction. A REAP template is included in Appendix K of this SWPPP; however, the QSP shall customize the template for each rain event. Completed REAPs must be maintained on site in Appendix K.

The QSP shall develop a **REAP 48 hours** prior to any likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation in the project area. The **REAP must be on site and be implemented 24 hours in advance of the predicted precipitation event**. The QSP shall include a printed copy of precipitation forecast information with the REAP. The General Permit requires the precipitation forecast information be obtained only from the National Weather Service Forecast Office. These forecasts can be obtained at:

[http://www.srh.noaa.gov/](http://www.srh.noaa.gov/)

The REAP shall be designed to protect all exposed portions of project sites and to ensure that the discharger has adequate materials, staff, and time to implement erosion and sediment control measures that are intended to reduce the amount of sediment and other pollutants that could be generated during the rain event.
At minimum the REAP must include the following site and phase-specific information:

1. Site Address;
2. Calculated Risk Level (2);
3. Site Stormwater Manager Information including the name, company, and 24-hour emergency telephone number;
4. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number;
5. Stormwater Sampling Agent information including the name, company, and 24-hour emergency telephone number;
6. Activities associated with each construction phase;
7. Trades active on the construction site during each construction phase;
8. Trade contractor information, and
9. Suggested actions for each project phase.

The QSP shall develop additional REAPs for project sites where construction activities are indefinitely halted or postponed (Inactive Construction). At a minimum, Inactive Construction REAPs must include:

1. Site Address;
2. Calculated Risk Level (2);
3. Site Stormwater Manager Information including the name, company, and 24-hour emergency telephone number;
4. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number;
5. Stormwater Sampling Agent information including the name, company, and 24-hour emergency telephone number;
6. Trades active on site during Inactive Construction;
7. Trade contractor information, and
8. Suggested actions for inactive construction sites.
5. **Training**

The General Permit requires that this SWPPP be developed by a QSD, and implemented by a Qualified SWPPP Practitioner (QSP). This SWPPP was prepared by GHD. The author of this SWPPP, Jeremy Svehla, P.E., is a Qualified SWPPP Developer (QSD). The Owner will identify the QSP in Section 6.1 and provide his/her training documentation in Appendix L. The QSP is responsible for all inspection and sampling activities at the project site. The QSP may delegate tasks to trained employees provided adequate supervision and oversight is provided.

Personnel at the site shall receive training appropriate for individual roles and responsibilities on the project. Appropriate personnel shall receive training on SWPPP implementation, BMP inspection, BMP maintenance and record keeping. The Contractor and Owner shall document all training activities (both formal and informal) using SWPPP Appendix L. Such training records shall be retained with the SWPPP and submitted in the Annual Report (see Section 1.7 for more information on Annual Report).
6. Responsible Parties and Operations

6.1 Responsible Parties

The General Permit requires (Section VIIB4) that a list of authorized representatives is provided in Appendix M, along with project site personnel who will be responsible for SWPPP activities, including the QSD and QSP.

The Project Owner is:

Humboldt County Resource Conservation District
5630 South Broadway
Eureka, CA 95503
Summer Daugherty
(707) 498-9716

The Owner’s Qualified SWPPP Developer (QSD) is:

Jeremy Svehla, P.E.
718 Third Street
Eureka, CA 95501
Office Phone: (707) 443-8326
Emergency Phone: (707) 407-7206

The Owner’s Qualified SWPPP Practitioner (QSP) is:

Jeremy Svehla will serve as the project QSP and will provide HCRCD Staff training to conduct the QSP monitoring/reporting responsibilities.

The Project Contractor is:

Training documentation for the QSP and QSD is provided in Appendix L.

6.2 Contractor List

The General Permit requires (Section VII.B.5) that the SWPPP include a list of names of all contractors, subcontractors, and individuals who will be directed by the QSP.

A list of contractors, subcontractors and individuals that will be directed by the Owner’s QSP shall be provided in Appendix N. The list is required to include telephone numbers and work addresses and the specific areas of responsibility of each subcontractor and emergency contact numbers.

7. Construction Site Monitoring Program

7.1 Purpose

The General Permit (Attachment D, Section I.1.a) requires that a written site specific Construction Site Monitoring Program (CSMP) be developed for each prior to the commencement of construction.
activities. This CSMP was developed to meet the specific requirements and objectives identified in the General Permit for Risk Level 2 projects. The CSMP shall be revised as necessary, by the Owner, to reflect project revisions.

7.2 Applicability of Permit Requirements

The General Permit defines a qualifying rain event as one that produces a half-inch or more of precipitation with a 48 hour or greater period between rain events. A list of required monitoring and reporting requirements, visual inspections, observation, sample collection frequency for this project is included below:

- **Non-stormwater inspection** - Quarterly for each drainage area;
- **Pre-rain inspection** for a qualifying rain event - All drainage areas, BMPs and stormwater containments within two business days before each qualifying rain event;
- **During rain inspection** - Daily (every 24 hours during extended rain events);
- **Post-rain inspection** for a qualifying rain event - All discharge locations within two business days after each qualifying rain event. Visually observe discharge of contained stormwater when discharged, and
- **BMP visual inspections** weekly and every 24 hours during extended storm events.

A list of required sampling and analysis and their required frequency for this project is included below:

- **Non-visible pollutants** (Spill/BMP failure based on pollutant source assessment) - within the first 2 hours of discharge from the site. Collect samples of runoff affected by the spill or released material(s) and runoff that is unaffected by the spilled or released material(s), and
- **Stormwater discharge sampling and analysis for a qualifying rain event** - A minimum of three samples per day of the qualifying event (and one per discharge location).

All sampling results, forms, logs, reports, etc. that will be electronically submitted to the State or Regional Water Board, shall be accompanied by the following certification from the Project Owner:

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7.3 Monitoring Locations

The Owner shall monitor the entire project site. Stormwater runoff sampling locations are based on proximity to planned stormwater discharge locations, non-visible pollutant storage, occurrence or use; accessibility for sampling, personnel safety; and other factors in accordance with the applicable requirements in the General Permit. Proposed sampling locations are shown on the Site Map at the general locations as follows:

- Salt River up- and downstream of project limits
If an operational activity or stormwater monitoring event conducted 48 hours prior to or during a rain event identifies (1) the presence of a material storage, waste storage, or operations area with spills; or (2) the potential for the discharge on non-visible pollutants to surface waters or a storm drain system that was an unplanned location, non-sediment sampling locations will be selected using the same rationale as that used to identify sediment sampling locations.

7.4 Safety

Site monitoring and sampling shall be performed by the QSP or a person trained in proper SWPPP management and water quality sampling protocol, working under the direct supervision of the QSP. Anticipated site hazards during monitoring and sampling activities include the following:

- Traffic and noise
- Construction equipment
- Excavation
- Miscellaneous slip, trip and fall hazards
- Various chemical hazards

The Owner shall only collect samples at discharge locations that can be safely accessed. The Owner is not required to physically collect samples or conduct visual observations or any inspections during dangerous weather conditions (flooding, electrical storms, etc.) or outside of scheduled construction site business hours. An explanation must be provided in the inspection checklist (Appendix J) and in the Annual Report if a project was unable to collect required samples or visual observations because of dangerous weather conditions.

7.5 Visual Monitoring (Inspections)

This project is required to conduct visual monitoring (inspections), which includes inspections of BMPs, inspections before and after qualifying rain events and inspection for non-stormwater discharges. Visual inspections are required for the duration of the project with the goal of confirming that appropriately selected BMPs have been implemented, are being maintained and are effective in preventing potential pollutants from coming in contact with stormwater. All inspections must be documented on the inspection checklist included in Appendix J. Records of all inspections (copies of the completed checklists, etc.) shall be kept with the SWPPP in Appendix J.

7.5.1 BMP Inspections

The General Permit requires that BMPs be inspected weekly and once each 24 hour period during extended storm events. The purpose of these inspections is to identify and record if:

- BMPs are properly installed
- BMPs need maintenance to operate effectively;
- BMPs have failed, and
- BMPs could fail to operate as intended.

All BMP inspections must be documented on an inspection checklist. If deficiencies are identified during BMP inspections, repairs or design changes to BMPs must be initiated by the Contractor within 72 hours of identification and need to be completed as soon as possible. SWPPP
amendments shall be prepared if warranted by the problem encountered and corrective action required. All SWPPP Amendments shall be prepared by a QSD.

7.5.2 Qualifying Rain Event Inspections

The General Permit requires that the construction site be inspected within two days prior to a qualifying rain event and within two days after a qualifying rain event. These inspections are only required during normal business hours of the construction site. The General Permit defines a qualifying rain event as one that produces a half-inch or more of precipitation with a 48 hour or greater period between rain events.

The General Permit requires that dischargers only use weather forecasts from the National Oceanographic and Atmospheric Administration (NOAA). Pre-project inspections should be initiated after consulting NOAA for a qualifying rain event with 50% or greater probability of precipitation (PoP). These forecasts can be obtained at http://www.srh.noaa.gov/.

Records must be kept of all qualifying rain event inspections. Records need to be maintained on site and document:

- Personnel performing the observations;
- Observation dates (time and date);
- Weather conditions (including the rain gauge reading for the qualifying rain event);
- Locations observed; and
- Corrective actions taken in response to observations.

A Visual Inspection Field Log Sheet is included in Appendix J.

7.5.3 Pre-Rain Event Inspections

The purpose of the pre-rain event inspection is to make sure the site and the BMPs are ready for the predicted rain. The pre-rain event inspection needs to cover:

- All stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- All BMPs to identify whether they have been properly implemented per the SWPPP, REAP and the BMP Fact Sheets;
- Stormwater storage and containment areas (if applicable) to detect leaks and ensure maintenance of adequate freeboard, and
- The presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odours, and source(s) of any observed pollutants within stored stormwater (if applicable).

7.5.4 Post-Rain Event Inspections

The purpose of the post-rain event inspection is to observe the discharge locations and the discharge of any stored or contained rainwater, to determine if BMPs functioned as designed and identify if any additional BMPs are required. The post-rain event inspection needs to cover:

- All stormwater discharge locations and drainage areas;
- The discharge of stored or contained stormwater (if applicable) that is derived from and discharged subsequent to a qualifying rain event, and
- All BMPs to determine if they were adequately designed, implemented, and effective.
- After assessing BMPs it should be noted on the inspection form whether the BMPs need maintenance.

### 7.5.5 Non-Stormwater Discharges Inspections

The General Permit requires that the entire construction site be inspected quarterly for the presence of non-stormwater discharges. The purpose of these inspections is to detect unauthorized non-stormwater discharges and observe authorized non-stormwater discharges. Quarterly inspections need to include each drainage area of the project and document:

- Presence or indications of (or indications of prior) unauthorized and authorized non-stormwater discharges and their sources;
- Pollutant characteristics of the non-stormwater discharge (floating and suspended material, sheen, discoloration, odor, etc.);
- Personnel performing the observations;
- Dates and approximate time each drainage area and non-stormwater discharge was observed, and
- Response taken to observations.

The Owner will sample effluent at all discharge points where non-stormwater and/or authorized non-stormwater is discharged off-site. The Owner shall send all non-stormwater sample analyses to a laboratory certified for such analyses by the State Department of Health Services. The Owner shall monitor and report run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs. Records must be kept of all inspections and must be maintained on site.

The quarterly inspection periods are
- January-March
- April-June
- July-September
- October-December

A Visual Inspection Field Log Sheet is included in Appendix J.

### 7.6 Water Quality Sampling and Analysis

The purpose of sampling is to determine whether BMPs implemented on a construction site are effective in controlling potential construction site pollutants, which come in contact with stormwater or non-stormwater, and to demonstrate compliance with the applicable NALs.

This section discusses the procedures and for water quality sampling and analysis. This section is divided into the following:

- Potential pollutant sources;
- Monitoring constituents;
- Sampling schedule;
- Monitoring Preparation;
Sampling locations;
Sample collection and handling;
Sample documentation procedures; and
Analytical methods, laboratories, and field meters.

For Risk Level 2 sites, the General Permit requires effluent monitoring subject to NALs for stormwater discharges. This monitoring is triggered after precipitation of ½ inch or greater with a 48-hour or greater period between rain events. During rain events producing run-off, the QSP or their designated personnel shall collect stormwater grab samples from sampling locations where defined on the site map included in Appendix C.

Periodically it will be necessary to re-evaluate sample locations as site conditions change. The sample location(s) must be representative of current site conditions with respects to disturbed areas and construction phase(s).

7.6.1 Potential Pollutant Sources

Sediment and Turbidity

Conditions or areas at a construction site that may cause sediment, silt, and/or turbidity in site runoff include:

- Exposed soil areas with inadequate erosion control measures;
- Areas of active grading;
- Poorly stabilized slopes;
- Lack of perimeter sediment controls;
- Areas of concentrated flow on unprotected soils;
- Poorly maintained erosion and sediment control measures;
- Tracking sediment onto roads and paved surfaces;
- Unprotected soil stockpiles; and
- Failure of an erosion or sediment control measure.

High pH

Conditions or areas at a construction site that may cause high pH in site discharges include:

- Concrete pours and curing;
- Concrete waste management areas;
- Soil amendments (e.g. fly ash and lime); and
- Mortar and stucco mixing, application, and waste management areas.

Non-Visible Pollutants

The following construction materials, wastes or activities are potential sources of non-visible pollutants to stormwater discharges from the project.

- Vehicle and equipment batteries
- Fertilizer
- Vehicle fluids, including oil, grease, petroleum, and coolants
- Asphalitic emulsions associated with asphalt-concrete paving operations
- Cement materials associated with PCC paving operations, drainage structures, median barriers, and bridge construction
- Base and subbase material
- Joint and curing compounds
- Concrete curing compounds (e.g. methacrylate and epoxy resin products)
- Paints
- Solvents, thinners, acids
- Sandblasting materials
- Mortar Mix
- Raw landscaping materials and wastes (topsoil, plant materials, herbicides, fertilizers, pesticides, mulch)
- BMP materials (sandbags, liquid copolymer)
- Treated lumber (materials and wastes)
- PCC rubble
- Masonry block rubble
- General litter

The following table lists the specific sources and types of potential non-visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.
Table 7.6.1.1 – Potential Non-Visible Pollutants and Water Quality Indicator Constituents

<table>
<thead>
<tr>
<th>Potential Pollutant Source</th>
<th>Pollutant</th>
<th>Water Quality Indicator Constituent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Batteries</td>
<td>Sulfuric Acid, lead, pH</td>
<td>Sulfate</td>
</tr>
<tr>
<td>Binding Agents</td>
<td>Refer to Manufacturer</td>
<td>Refer to Manufacturer</td>
</tr>
<tr>
<td>Portable Toilets</td>
<td>Bacteria and disinfectants</td>
<td>Total/Fecal Coliform</td>
</tr>
<tr>
<td>Concrete &amp; Masonry</td>
<td>Curing Compounds, Acid Wash, Concrete Rinse Water, Sawcut Slurries</td>
<td>pH, Alkalinity, VOC</td>
</tr>
<tr>
<td>Cleaning Products</td>
<td>Detergents, Bleaches, Polishes and Solvents</td>
<td>Detergents, Bleaches and Solvents</td>
</tr>
<tr>
<td>Painting Products</td>
<td>Paint Strippers, Thinners, Lacquers, Varnish, Enamels, Turpentine</td>
<td>COD, VOC, SVOC, Phenols</td>
</tr>
<tr>
<td>Treated Wood</td>
<td>Copper, Arsenic, Selenium</td>
<td>Metals</td>
</tr>
<tr>
<td>Asphalt Paving/Curbs</td>
<td>Hot and Cold Mix Asphalt</td>
<td>Oil, Grease, VOC, SVOC</td>
</tr>
</tbody>
</table>

7.6.2 Monitoring Constituents

At a minimum, Risk Level 2 projects are required to collect water quality samples for pH (during construction phases with a high risk of high pH discharge) and turbidity (all phases). Additional monitoring may be required by the RWQCB.

Risk Level 2 projects are required to collect water quality samples if there is a BMP breach, malfunction, leakage, or spill. Water quality samples should be taken for non-visible pollutants that may have been discharged from the site as identified in the site pollutant source assessment (see Section 2.5 of this guidance document).

Particle size analysis may be needed if a Risk Level 2 project is using a sediment basin or if needed to justify a site specific risk level calculation using RUSLE. The particle size analysis provides the information needed to determine the K-factor.

7.6.3 Sampling Schedule

Stormwater Runoff

Runoff samples that are representative of site discharges will be collected at the rate of a minimum of three samples per day during the qualifying rain event. At least one sample shall be taken from each sampling location.

Monitor, sample, and report site run-on from surrounding areas if there is reason to believe through visual observation that run-on may contribute to an exceedance of NALs.

Non-Visible Pollutant Monitoring

Samples for the applicable non-visible pollutant(s) and a sufficiently large uncontaminated background sample shall be collected during the first two hours of discharge from rain events that
result in a sufficient discharge for sample collection. Samples shall be collected during working hours and shall be collected regardless of the time of year and phase of the construction.

In conformance with the U.S. Environmental Protection Agency definition, a minimum of **72 hours** of dry weather will be used to distinguish between separate rain events.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during the required inspections conducted before or during rain events:

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area;

- Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system;

- An operational activity with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system;

- Soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

- Stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and there is the potential for discharge of non-visible pollutants to surface waters or a storm sewer system.

### 7.6.4 Monitoring Preparation

Samples on the project site shall be collected by Owner under direction of the Owner’s QSP. All sampling personnel and alternates shall review the CSMP. Qualifications of designated personnel describing environmental sampling training and experience are provided in Appendix L.

An adequate stock of supplies and equipment for monitoring pH, turbidity and non-visible pollutants shall be available on the project site prior to a sampling event. Monitoring supplies and equipment shall be stored in a cool-temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel shall be available to collect samples in accordance with the sampling schedule.

Sampling personnel shall be available to collect samples in accordance with the sampling schedule. Supplies maintained at the project site shall include, but will be not limited to, surgical gloves, sample collection equipment, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, field meters, paper towels, personal rain gear, Sampling Activity Log forms and Chain of Custody (COC) forms.

For samples that will be analyzed by a laboratory, the sampler shall only use the sample containers provided by the laboratory to collect and store samples.
7.6.5 Sampling Locations

**Stormwater Runoff**

Risk Level 2 projects are required to collect water quality samples of runoff that is discharged off-site. Samples must be representative of the runoff associated with construction activity from the entire project disturbed area. Sampling locations are based on proximity to construction activities; accessibility for sampling, personnel safety; and other factors in accordance with the applicable requirements in the General Permit. Proposed sampling locations are shown on the Plans.

In addition to the general sampling locations above, all discharge points where stormwater is discharged offsite shall be considered sampling locations. The Owner shall ensure that the stormwater discharge collected and observed represents the effluent in each drainage area based on visual observation of the water and upstream conditions.

If an operational activity or stormwater inspection conducted prior to or during a rain event identifies the presence of conditions that may lead to, or indicate, increased sediment, turbidity or pH in runoff discharges at an unplanned location that has not been identified in this SWPPP, additional sampling locations shall be selected using the same rationale as that used to identify planned locations.

**Non-Stormwater Runoff**

Risk Level 2 projects are also required to collect water quality samples to characterize authorized and unauthorized non-stormwater discharged from the site. The Owner shall sample effluent at all discharge points where non-stormwater and/or authorized non-stormwater is discharged off-site. Refer to Section 7.5.5 for more information.

**Non-Visible Pollutant Monitoring**

In situations where a breach, malfunction, leakage, or spill has occurred, dischargers must collect a sample of runoff that has come into contact with the materials and must also collect a runoff sample that has not come into contact materials (uncontaminated sample) for comparison. Planned sampling locations include the following:

- The Owner shall identify sampling locations on the project site for the collection of samples or runoff from planned material and waste storage areas and from areas where that non-visible pollutant producing operations are planned.

- The Owner shall identify a location or locations for the collection of uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. This location shall be selected such that the sample will not have come in contact with operational or storage areas associated with the materials, wastes, and activities identified in Section 7.6.1 or disturbed soils areas.

If an operational activity or stormwater inspection conducted 24 hours prior to or during a rain event identifies the presence of a material storage, waste storage, or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters or a storm sewer system that was an unplanned location and has not been identified in this SWPPP, sampling locations shall be revised and selected using the same rationale as that used to identify planned locations.
7.6.6 Sample Collection and Handling

Only personnel trained in proper water quality sampling and the usage of field meters will collect, maintain and ship samples and utilize field meters. Downstream samples shall be collected to represent the water body mixed with direct flow from the construction site. Samples shall not be collected directly from ponded, sluggish, or stagnant water.

Any meter selected for field monitoring shall have the ability to be calibrated, be accompanied by detailed operation instructions, and should be ruggedly designed for field use and long term storage. All monitoring instruments and equipment (including the Owner and Contractor’s own field instruments for measuring pH and turbidity) shall be calibrated and maintained in accordance with the manufacturers’ specifications to ensure accurate measurements.

When using field meters, pH and turbidity measurements shall be conducted immediately (i.e. samples should not be stored for later measurement). Some field meters can be placed directly in the flow of water and gather instantaneous data. Meters with probes that can be directly placed into the flow are ideal, however low flow conditions may not allow for this type of measurement. In this case, grab samples can be collected and placed within the field meter’s recording container.

Grab samples shall be collected and preserved in accordance with the methods identified in Section 7.6.8. Only personnel trained in proper water quality sampling shall collect samples.

Samples shall be collected by placing a separate lab-provided sample container directly into a stream of water down gradient and within close proximity to the potential non-visible pollutant discharge location. This separate lab-provided sample container will be used to collect water, which will be transferred to sample bottles for laboratory analysis. The Owner shall ensure that water samples are large enough to characterize the site conditions. The up gradient and uncontaminated background samples shall be collected first prior to collecting the down gradient to minimize cross contamination. The sampling personnel will collect the water up gradient of where they are standing. Once the separate lab-provided sample container is filled, the water sample will be poured directly into sample bottles provided by the laboratory for the analyte(s) being monitored.

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labelled, documented on a Chain of Custody form provided by the analytical laboratory (a sample COC form is included in Appendix H), sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to a California state-certified laboratory.

7.6.7 Sample Documentation Procedures

All samples, whether analyzed in the field or by a laboratory, shall be documented on an Effluent Sampling Field Log. All original data documented on sample bottle identification labels, Effluent Sampling Field Logs, Chain of Custody forms (for laboratory samples only) and Inspection Checklists shall be recorded using waterproof ink. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections will be initialled and dated.

A copy of the Effluent Sampling Field Log is provided in Appendix J. This log shall identify:

- Sampling date;
- Separate times for collected samples and QA/QC samples recorded to the nearest minute (for laboratory samples only);
- Unique sample identification number and location;
- Analysis constituent;
- Names of sampling personnel;
- Weather (including precipitation amount);
- Field Analysis results, and
- Other pertinent data.

All samples to be analyzed by a laboratory will be accompanied by a COC form provided by the laboratory (a sample COC form is included in Appendix H). Only the sample collectors shall sign the COC form over to the lab. COC procedures shall be strictly adhered to for QA/QC purposes;

When applicable, the Owner’s stormwater inspector shall document on the checklist that samples for non-visible pollutants were taken during a rain event.

7.6.8 Analytical Methods, Laboratories and Field Meters

All laboratory analyses must be conducted according to analytical procedures specified in 40 Code of Federal Regulations (CFR) Part 136, unless other analytical procedures have been specified in the General Permit or by the RWQCB. With the exception of field analyses conducted by the discharger for turbidity and pH, all analyses must be sent to and conducted by a state-certified analytical laboratory, such as:

Laboratory Name: North Coast Laboratories Ltd.
Address: 5680 West End Road
Arcata, CA 95521
Telephone Number: (707) 822-4649

Stormwater Runoff

Stormwater runoff samples shall be analyzed for the applicable constituents using the analytical methods in the Table 7.6.8.1 below:
Table 7.6.8.1  Water Quality Constituent Analytical Method/Protocol, Minimum Detection Limits, Sample Size and Container Requirements

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Method</th>
<th>Minimum Detection Limit</th>
<th>Reporting Units</th>
<th>Numeric Action Level (NAL)</th>
<th>Container Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Calibrated Field Meter or pH Test Kit</td>
<td>0.2</td>
<td>pH Units</td>
<td>Lower NAL = 6.5 Upper NAL = 8.5</td>
<td>Plastic</td>
</tr>
<tr>
<td>Turbidity</td>
<td>Calibrated Field Meter or EPA 180.1</td>
<td>1</td>
<td>NTU</td>
<td>250 NTU</td>
<td>Plastic</td>
</tr>
</tbody>
</table>

Samplers can perform pH analysis on site with a calibrated pH meter, or pH test kit. Samplers can perform turbidity analysis using a calibrated turbidity meter (turbidimeter), either on site or at an accredited analytical laboratory. All monitoring instruments and equipment (including field instruments for measuring pH and turbidity) shall be calibrated and maintained in accordance with manufacturers’ specifications to ensure accurate measurements.

**Non-Visible Pollutant Monitoring**

Non-visible pollutants may include a wide range of analytical methods. A list of potential non-visible pollutants based on common construction activities is shown in Table 7.6.8.2. This list is not meant to be inclusive but to provide general guidance for the project.
<table>
<thead>
<tr>
<th>Constituent</th>
<th>Analytical Method</th>
<th>Minimum Sample Volume</th>
<th>Sample Bottle</th>
<th>Sample Preservation</th>
<th>Reporting Limit</th>
<th>Maximum Holding Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOCs-Solvents</td>
<td>EPA 8260B</td>
<td>3 x 40 mL</td>
<td>VOA-glass</td>
<td>Store at 4°C, HCl to pH&lt;2</td>
<td>1 ug/L</td>
<td>14 days</td>
</tr>
<tr>
<td>SVOCs</td>
<td>EPA 8270C</td>
<td>1 x 1 L</td>
<td>Glass-Amber</td>
<td>Store at 4°C</td>
<td>10 ug/L</td>
<td>7 days</td>
</tr>
<tr>
<td>Pesticides/PCBs</td>
<td>EPA 8081A/8082</td>
<td>1 x 1 L</td>
<td>Glass-Amber</td>
<td>Store at 4°C</td>
<td>0.1 ug/L</td>
<td>7 days</td>
</tr>
<tr>
<td>Herbicides</td>
<td>EPA 8151A</td>
<td>1 x 1 L</td>
<td>Glass-Amber</td>
<td>Store at 4°C</td>
<td>Check Lab</td>
<td>7 days</td>
</tr>
<tr>
<td>BOD</td>
<td>EPA 405.1</td>
<td>1 x 500 mL</td>
<td>Polypropylene</td>
<td>Store at 4°C</td>
<td>1 mg/L</td>
<td>48 hours</td>
</tr>
<tr>
<td>COD</td>
<td>EPA 410.4</td>
<td>1 x 250 mL</td>
<td>Glass-Amber</td>
<td>Store at 4°C, H2SO4 to pH&lt;2</td>
<td>5 mg/L</td>
<td>28 days</td>
</tr>
<tr>
<td>DO</td>
<td>SM 4500-OG</td>
<td>1 x 250 mL</td>
<td>Glass-Amber</td>
<td>Store at 4°C</td>
<td>Check Lab</td>
<td>8 hours</td>
</tr>
<tr>
<td>pH</td>
<td>EPA 150.1</td>
<td>1 x 100 mL</td>
<td>Polypropylene</td>
<td>None</td>
<td>Unitless</td>
<td>Immediate</td>
</tr>
<tr>
<td>Alkalinity</td>
<td>SM 2320B</td>
<td>1 x 250 mL</td>
<td>Polypropylene</td>
<td>Store at 4°C</td>
<td>1 mg/L</td>
<td>14 days</td>
</tr>
<tr>
<td>Metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Na, Th, Va, Zn)</td>
<td>EPA 6010B/7470A</td>
<td>1 x 250 mL</td>
<td>Polypropylene</td>
<td>Store at 4°C, HNO3 to pH&lt;2</td>
<td>0.1 mg/L</td>
<td>6 months</td>
</tr>
<tr>
<td>Metals (Chromium VI)</td>
<td>EPA 7199</td>
<td>1 x 500 mL</td>
<td>Polypropylene</td>
<td>Store at 4°C</td>
<td>1.0 ug/L</td>
<td>24 hours</td>
</tr>
</tbody>
</table>
7.7 Watershed Monitoring
This project is not participating in a qualified regional watershed-based monitoring program; therefore, the project shall adhere to the monitoring requirements found in the General Permit.

7.8 Quality Assurance/Quality Control
A QA/QC plan shall be implemented as part of the CSMP to ensure that analytical data can be used with confidence. QA/QC procedures to be initiated include the following:

- Field logs;
- Clean sampling techniques;
- Sample Chains of Custody (COCs); and
- Data verification.

Each of these procedures is discussed in more detail in the following sections.

7.8.1 Field Logs
Field Logs (located in Appendix J) shall be used for all sampling activities. Sampling information to be included in the field log includes the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples that were collected. Field observations shall be noted in the log for any abnormalities at the sampling location (color, odors, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the field log. Completed logs shall be kept with the SWPPP in Appendix J;

7.8.2 Clean Sampling Techniques
Clean sampling approach will minimize the chance of field contamination and questionable data results. Only clean containers will be used for sample collection. The sampler shall wear clean, powder-free nitrile gloves during collection and handling.

7.8.3 Chain-of-Custody
All laboratory samples will be properly labeled and accompanied by a Chain-of-Custody (COC) form. Samples will be delivered promptly to the laboratory. A sample COC form is included in Appendix H.

7.8.4 Data Verification
Duplicate samples shall be collected at a rate of 10 percent or 1 duplicate per sampling event. A duplicate sample shall be collected at each location immediately after the primary sample has been collected. The duplicate sample shall be collected, handled, and analyzed using the same sterile protocols as primary samples. Duplicates will be collected where contamination is likely, not on the background sample. Duplicate samples will not influence any evaluations or conclusions; however, they will be used as a check on laboratory quality assurance.

After analytical results are received from the analytical laboratory, the data should be verified to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data should be verified as soon as the data reports are received.

The COC and laboratory reports need to be checked to make sure all requested analyses were performed and all samples are accounted for in the reports.
Check laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.

Check data for outlier values and follow up with the laboratory. Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified, and corrected quickly by the laboratory. Attention should be paid to data that is an order of magnitude or more different than similar locations, or is inconsistent with previous data from the same location.

For laboratory analyses, EPA establishes QA/QC checks and acceptable criteria. These data are typically reported along with the sample results. Data reviewers should evaluate the reported QA/QC data to check for contamination (look at method, field, and equipment blanks), precision (laboratory matrix spike duplicates), and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data, and usually provides an explanation of the potential impact to the sample results.

Check the data set for outlier values and, accordingly, confirm results and re-analyze samples where appropriate. Sample re-analysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the expected range. Initial data, even if outside the expected range may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met. If this occurs, the project should obtain a written statement from the analytical laboratory regarding the validity of the sample result.

Similarly, field data needs to be checked as soon as possible to identify potential errors. Reported data and observations should be verified to ensure that it is complete and accurate and as soon as the field logs are received.

Field logs should be checked to make sure all required measurements were completed and appropriately documented. Crews may occasionally miss-record a value. Reported values that appear out of the typical range or inconsistent, should be followed up on immediately to identify potential reporting or equipment problems.

Equipment calibration notations should be verified for outlier data, and if appropriate equipment calibrations should be checked after sampling. Observations noted on the field logs can also help to identify potential interferences. Notations should be made of any errors and actions taken to correct the equipment or recording errors.

When using a field meter it is important to record the value and then make note of any possible meter failures or interferences that could have led to an exceedance. Some possible instrument problems may include the need to recalibrate; the need to replace the battery; problems with the sample container (such as scratches on glass or plastic optical sample cells or particles on the outside of the optical sample cells); or fouled probes.

The Owner will monitor and report site run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs.

### 7.9 Reporting Requirements and Records Retention

Risk Level 2 dischargers shall retain records of all stormwater monitoring information and copies of all reports (including Annual Reports) for a period of at least three years. Risk Level 2 dischargers shall retain all records on-site while construction is ongoing.
7.9.1 Data Evaluation

The Owner should review the water quality analytical results and the QA/QC data. Should the runoff/down gradient sample show an increased level of the tested analyte relative to the background sample, or if NAL parameters are exceeded, the BMPs, site conditions, and surrounding influences will be assessed to determine the probable cause for the increase or exceedance.

As determined by the data and project evaluation, appropriate BMPs shall be repaired or modified to mitigate increases in pH, Turbidity and/or nonvisible pollutants in the project runoff. Any revisions to the BMPs shall be recorded as an amendment to the SWPPP.

7.9.2 NAL Exceedances

This project is subject to a pH Numeric Action Level (NAL) of 6.5 (lower) to 8.5 (upper) and turbidity NAL of 250 NTUs.

If NAL parameters are exceeded, the Contractor shall immediately take corrective action, including implementing additional BMPs and revising their Stormwater Pollution Prevention Plans (SWPPPs) accordingly to either prevent pollutants and authorized nonstormwater discharges from contaminating stormwater, or to substantially reduce the pollutants to levels consistently below the NALs.

In the event that the daily average of the effluent samples exceeds an applicable NAL, the Owner shall electronically submit all storm event sampling results to the State and Regional Water Boards no later than 10 days after the conclusion of the storm event. The Owner shall also provide an NAL Exceedance Report to the State and Regional Water Boards when requested by the RWQCB. If requested, the NAL Exceedance Report containing:

- The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit are to be reported as "less than the method detection limit or <MDL");
- The date, place, and time of sampling;
- Any visual observation (inspections);
- Any measurements, including precipitation (include the onsite rain gauge reading and nearby governmental rain gauge readings for verification), and
- A description of the current BMPs associated with the effluent sample that exceeded the NAL and any proposed corrective actions taken.

Reports will be kept with the SWPPP in Appendix E and retained for a minimum of three years after the Annual Report is filed.

7.9.3 Change of Conditions

Whenever SWPPP monitoring, pursuant to the General Permit, indicates a change in site conditions that might affect the appropriateness of sampling locations or introduce additional non-visible pollutants of concern, testing protocols will be revised accordingly. All such revisions will be recorded as amendments to the SWPPP and logged in Appendix D.
7.9.4 **Annual Report**

The Owner is required to prepare and electronically submit an Annual Report no later than September 1st of each year. The Annual Reports must be certified in accordance with the Special Provisions in the General Permit. The Annual Report must include the following stormwater monitoring information:

- A summary and evaluation of all sampling and analysis results, including original laboratory reports;
- The analytical method(s), method reporting unit(s), and MDL(s) of each analytical parameter (analytical results that are less than the MDL must be reported as “less than the MDL” or “<MDL”);
- A summary of all corrective actions taken during the compliance year;
- Identification of any compliance activities or corrective actions that were not implemented;
- A summary of all violations of the General Permit;
- The individual(s) who performed facility inspections, sampling, visual observation (inspections), and/or measurements;
- The date, place, time of facility inspections, sampling, visual observation (inspections) and/or measurements, including precipitation (rain gauge), and
- Training documentation of all personnel responsible for General Permit compliance activities;
- The visual observations and sample collection exception records and reports.

7.9.5 **Records Retention**

The Owner must retain records of all stormwater monitoring, sampling and analyzing information and copies of all reports, including Annual Reports, forms, results, logs, calibration records, etc., for a period of at least three years from date of submittal or longer if required by the RWQCB. Records are to be kept on site while construction is ongoing. These records include:

- The date, place, and time of facility inspections, sampling, visual observations (inspections) and/or measurements, including precipitation;
- The individual(s) who performed the facility inspections, sampling, visual observation (inspections) and/or measurements;
- The date and approximate time of analyses;
- The individual(s) who performed the analyses;
- A summary of all analytical results from the last three years, the method detection limits and reporting limits and the analytical techniques or methods used;
- Rain gauge readings from site inspections;
- QA/QC records and results;
- Non-stormwater discharge inspections and visual observations (inspections) and stormwater discharge visual observation records;
- Visual observation and sample collection exemption records;
- NAL Exceedance Reports, and
• The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations (inspections) or inspections.

Results of field measurements and laboratory analyses must be kept in the SWPPP. Additionally, training logs, COCs, calibration records, and other documentation related to sampling and analysis will also be kept with the SWPPP.
Appendix A - Construction General Permit
Construction General Permit

The General Permit will be included with final document and can be made available upon request.

The General Permit can also be found at:
Appendix B – Calculations and Risk Level 2 Requirements
Figure 1. Erosivity Index Zone Map
### Table 1. Erosivity Index (%EI values extracted from USDA Manual 703)

All values are at the end of the day listed below - Linear interpolation between dates is acceptable.

EI as a percentage of Average Annual R Value Computed for Geographic Areas Shown in Figure 1

| Month/Day | Jan 1 | Jan 16 | Jan 31 | Feb 1 | Feb 16 | Feb 31 | Mar 1 | Mar 16 | Mar 31 | Apr 1 | Apr 16 | Apr 30 | May 1 | May 16 | May 30 | Jun 1 | Jun 16 | Jun 30 | Jul 1 | Jul 16 | Jul 30 | Aug 1 | Aug 16 | Aug 31 | Sep 1 | Sep 16 | Sep 30 | Oct 1 | Oct 16 | Oct 30 | Nov 1 | Nov 16 | Nov 30 | Dec 1 | Dec 16 | Dec 31 |
|-----------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|
| EI Zone   |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |
| 1         | 4.3  | 8.3   | 12.8  | 17.3 | 21.6  | 26.0  | 31.3 | 36.9  | 42.6  | 48.4  | 54.2  | 60.0  | 66.8  | 73.7 | 80.6  | 87.5  | 94.5 | 101  | 107  | 114  | 121  | 128  | 135  | 142  | 149  | 156  | 163  | 170  | 177  | 184  | 191  | 198 |
| 2         | 4.3  | 8.3   | 12.8  | 17.3 | 21.6  | 26.0  | 31.3 | 36.9  | 42.6  | 48.4  | 54.2  | 60.0  | 66.8  | 73.7 | 80.6  | 87.5  | 94.5 | 101  | 107  | 114  | 121  | 128  | 135  | 142  | 149  | 156  | 163  | 170  | 177  | 184  | 191  | 198 |
| 3         | 7.4  | 13.8  | 20.9  | 26.5 | 31.8  | 38.5  | 40.2 | 41.6  | 42.5  | 43.6  | 44.5  | 45.1  | 45.7  | 46.4  | 47.7  | 49.4  | 52.8  | 57.0  | 64.5  | 73.1  | 83.3  | 92.3  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  |
| 4         | 3.9  | 7.9   | 12.6  | 17.4 | 21.6  | 25.0  | 28.7 | 31.9  | 35.1  | 38.2  | 42.0  | 46.7  | 48.2  | 50.1  | 53.1  | 56.6  | 62.2  | 67.9  | 75.2  | 83.5  | 90.5  | 96.0  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  |
| 5         | 2.3  | 3.6   | 4.7   | 6.0  | 7.7   | 10.9  | 13.7 | 17.9  | 21.2  | 24.8  | 28.1  | 31.1  | 33.1  | 35.3  | 38.2  | 43.2  | 57.3  | 67.8  | 77.9  | 86.0  | 91.3  | 96.9  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  |

| R = 18.8% x 120 = 22.56 |
GIS files can be downloaded from:
ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/egp/

Data Source: State Water Resources Control Board
GIS files can be downloaded from:
ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/
RUSLE K Factor Watershed Map Methodology

**Objective:**
To provide guidance for determining the Revised Universal Soil Loss Equation (RUSLE) K Factor with regards to the Construction General Permit. The K factor represents the combination of detachability of the soil, runoff potential of the soil, and the transportability of the sediment eroded from the soil. Using the methodology, a discharger will be able to identify the appropriate, areally-weighted K Factor value for a construction project.

**Background:**
The soil-erodibility factor (K) represents: (1) the susceptibility of soil or surface material to erosion, (2) the transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff, although these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high runoff rates and large runoff volumes. For more information on the Construction General Permit and references for the RUSLE, please visit: [http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml)

**Data and Method:**
Soil data was acquired from the Natural Resources Conservation Service (NRCS) and was used in conjunction with an NRCS Microsoft Access template and the NRCS Soil Data Viewer. The Microsoft Access template was used in conjunction with the data received from the Soil Data Mart to produce the background data needed to create the K Factor values (for whole soil) in ArcMap.

- The Microsoft Access template needed to produce K Factor values can be downloaded from: [http://soildatamart.nrcs.usda.gov/Templates.aspx](http://soildatamart.nrcs.usda.gov/Templates.aspx)
- The GIS extension “Soil Data Viewer” used in creating this data can be downloaded from: [http://soils.usda.gov/sdv/download.html](http://soils.usda.gov/sdv/download.html)

For a complete list of NRCS soil survey data and methods please visit:

**Contact:**
Please contact the Storm Water help desk with any questions or comments:
- Phone: 916-341-5537
- Email: stormwater@waterboards.ca.gov

ATTACHMENT D
RISK LEVEL 2 REQUIREMENTS

A. Effluent Standards

[These requirements are the same as those in the General Permit order.]

1. Narrative – Risk Level 2 dischargers shall comply with the narrative effluent standards listed below:

   a. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 C.F.R. §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

   b. Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

2. Numeric – Risk level 2 dischargers are subject to a pH NAL of 6.5-8.5, and a turbidity NAL of 250 NTU.

B. Good Site Management "Housekeeping"

1. Risk Level 2 dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged. At a minimum, Risk Level 2 dischargers shall implement the following good housekeeping measures:

   a. Conduct an inventory of the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

   b. Cover and berm loose stockpiled construction materials that are not actively being used (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.).
c. Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

d. Minimize exposure of construction materials to precipitation. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

e. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.

2. Risk Level 2 dischargers shall implement good housekeeping measures for waste management, which, at a minimum, shall consist of the following:

a. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system.

b. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water.

c. Clean or replace sanitation facilities and inspecting them regularly for leaks and spills.

d. Cover waste disposal containers at the end of every business day and during a rain event.

e. Prevent discharges from waste disposal containers to the storm water drainage system or receiving water.

f. Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.

2009-0009-DWQ as amended by 2010-0014-DWQ

2009-0009-DWQ as amended by 2010-0014-DWQ September 2, 2009 as modified on November 16, 2010
ii. Appropriate spill response personnel are assigned and trained.

i. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.

3. Risk Level 2 dischargers shall implement good housekeeping for vehicle storage and maintenance, which, at a minimum, shall consist of the following:

a. Prevent oil, grease, or fuel to leak into the ground, storm drains or surface waters.

b. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.

c. Clean leaks immediately and disposing of leaked materials properly.

4. Risk Level 2 dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:

a. Contain stockpiled materials such as mulches and topsoil when they are not actively being used.

b. Contain all fertilizers and other landscape materials when they are not actively being used.

c. Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.

d. Apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.

e. Stack erodible landscape material on pallets and covering or storing such materials when not being used or applied.

5. Risk Level 2 dischargers shall conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list shall be kept with the SWPPP and shall identify
all non-visible pollutants which are known, or should be known, to occur on the construction site. At a minimum, when developing BMPs, Risk Level 2 dischargers shall do the following:

a. Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.

b. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.

c. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

d. Ensure retention of sampling, visual observation, and inspection records.

e. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

6. Risk Level 2 dischargers shall implement good housekeeping measures on the construction site to control the air deposition of site materials and from site operations. Such particulates can include, but are not limited to, sediment, nutrients, trash, metals, bacteria, oil and grease and organics.

7. **Additional Risk Level 2 Requirement:** Risk Level 2 dischargers shall document all housekeeping BMPs in the SWPPP and REAP(s) in accordance with the nature and phase of the construction project. Construction phases at traditional land development projects include Grading and Land Development Phase, Streets and Utilities, or Vertical Construction for traditional land development projects.

C. **Non-Storm Water Management**

1. Risk Level 2 dischargers shall implement measures to control all non-storm water discharges during construction.

2. Risk Level 2 dischargers shall wash vehicles in such a manner as to prevent non-storm water discharges to surface waters or MS4 drainage systems.
3. Risk Level 2 dischargers shall clean streets in such a manner as to prevent unauthorized non-storm water discharges from reaching surface water or MS4 drainage systems.

D. Erosion Control

1. Risk Level 2 dischargers shall implement effective wind erosion control.

2. Risk Level 2 dischargers shall provide effective soil cover for inactive\(^1\) areas and all finished slopes, open space, utility backfill, and completed lots.

3. Risk Level 2 dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation.

E. Sediment Controls

1. Risk Level 2 dischargers shall establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.

2. On sites where sediment basins are to be used, Risk Level 2 dischargers shall, at minimum, design sediment basins according to the method provided in CASQA’s Construction BMP Guidance Handbook.

3. Additional Risk Level 2 Requirement: Risk Level 2 dischargers shall implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active\(^2\) construction.

4. Additional Risk Level 2 Requirement: Risk Level 2 dischargers shall apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths\(^3\) in accordance with Table 1.

\(^1\) Inactive areas of construction are areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days.

\(^2\) Active areas of construction are areas undergoing land surface disturbance. This includes construction activity during the preliminary stage, mass grading stage, streets and utilities stage and the vertical construction stage.

\(^3\) Sheet flow length is the length that shallow, low velocity flow travels across a site.
Table 1 - Critical Slope/Sheet Flow Length Combinations

<table>
<thead>
<tr>
<th>Slope Percentage</th>
<th>Sheet flow length not to exceed</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-25%</td>
<td>20 feet</td>
</tr>
<tr>
<td>25-50%</td>
<td>15 feet</td>
</tr>
<tr>
<td>Over 50%</td>
<td>10 feet</td>
</tr>
</tbody>
</table>

5. **Additional Risk Level 2 Requirement**: Risk Level 2 dischargers shall ensure that construction activity traffic to and from the project is limited to entrances and exits that employ effective controls to prevent offsite tracking of sediment.

6. **Additional Risk Level 2 Requirement**: Risk Level 2 dischargers shall ensure that all storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g. tire washoff locations) are maintained and protected from activities that reduce their effectiveness.

7. **Additional Risk Level 2 Requirement**: Risk Level 2 dischargers shall inspect on a daily basis all immediate access roads daily. At a minimum daily (when necessary) and prior to any rain event, the discharger shall remove any sediment or other construction activity-related materials that are deposited on the roads (by vacuuming or sweeping).

F. **Run-on and Run-off Controls**

Risk Level 2 dischargers shall effectively manage all run-on, all runoff within the site and all runoff that discharges off the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance with the effluent limitations in this General Permit.

G. **Inspection, Maintenance and Repair**

1. Risk Level 2 dischargers shall ensure that all inspection, maintenance repair and sampling activities at the project location shall be performed or supervised by a Qualified SWPPP Practitioner (QSP) representing the discharger. The QSP may delegate any or all of these activities to an employee appropriately trained to do the task(s).

2. Risk Level 2 dischargers shall perform weekly inspections and observations, and at least once each 24-hour period during extended storm events, to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.
3. Upon identifying failures or other shortcomings, as directed by the QSP, Risk Level 2 dischargers shall begin implementing repairs or design changes to BMPs within 72 hours of identification and complete the changes as soon as possible.

4. For each inspection required, Risk Level 2 dischargers shall complete an inspection checklist, using a form provided by the State Water Board or Regional Water Board or in an alternative format.

5. Risk Level 2 dischargers shall ensure that checklists shall remain onsite with the SWPPP and at a minimum, shall include:

   a. Inspection date and date the inspection report was written.

   b. Weather information, including presence or absence of precipitation, estimate of beginning of qualifying storm event, duration of event, time elapsed since last storm, and approximate amount of rainfall in inches.

   c. Site information, including stage of construction, activities completed, and approximate area of the site exposed.

   d. A description of any BMPs evaluated and any deficiencies noted.

   e. If the construction site is safely accessible during inclement weather, list the observations of all BMPs: erosion controls, sediment controls, chemical and waste controls, and non-storm water controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and any projected maintenance activities.

   f. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges.

   g. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.

   h. Photographs taken during the inspection, if any.

   i. Inspector’s name, title, and signature.

H. Rain Event Action Plan

1. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop a Rain Event Action Plan (REAP) 48 hours prior to any
likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation in the project area. The discharger shall ensure a QSP obtain a printed copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project’s location at http://www.srh.noaa.gov/forecast).

2. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop the REAPs for all phases of construction (i.e., Grading and Land Development, Streets and Utilities, Vertical Construction, Final Landscaping and Site Stabilization).

3. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP ensure that the REAP include, at a minimum, the following site information:

   a. Site Address
   b. Calculated Risk Level (2 or 3)
   c. Site Storm Water Manager Information including the name, company, and 24-hour emergency telephone number
   d. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number
   e. Storm Water Sampling Agent information including the name, company, and 24-hour emergency telephone number

4. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP include in the REAP, at a minimum, the following project phase information:

   a. Activities associated with each construction phase
   b. Trades active on the construction site during each construction phase
   c. Trade contractor information
   d. Suggested actions for each project phase

5. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP develop additional REAPs for project sites where construction activities are indefinitely halted or postponed (Inactive Construction). At a minimum, Inactive Construction REAPs must include:

   a. Site Address
   b. Calculated Risk Level (2 or 3)
   c. Site Storm Water Manager Information including the name, company, and 24-hour emergency telephone number
d. Erosion and Sediment Control Provider information including the name, company, and 24-hour emergency telephone number

e. Storm Water Sampling Agent information including the name, company, and 24-hour emergency telephone number

f. Trades active on site during Inactive Construction
g. Trade contractor information

h. Suggested actions for inactive construction sites

6. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP begin implementation and make the REAP available onsite no later than 24 hours prior to the likely precipitation event.

7. **Additional Risk Level 2 Requirement:** The discharger shall ensure a QSP maintain onsite a paper copy of each REAP onsite in compliance with the record retention requirements of the Special Provisions in this General Permit.
I. Risk Level 2 Monitoring and Reporting Requirements

Table 2- Summary of Monitoring Requirements

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Visual Inspections</th>
<th>Sample Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quarterly Non-storm Water Discharge</td>
<td>Pre-storm Event Baseline</td>
</tr>
<tr>
<td>2</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

1. Construction Site Monitoring Program Requirements

   a. Pursuant to Water Code Sections 13383 and 13267, all dischargers subject to this General Permit shall develop and implement a written site-specific Construction Site Monitoring Program (CSMP) in accordance with the requirements of this Section. The CSMP shall include all monitoring procedures and instructions, location maps, forms, and checklists as required in this section. The CSMP shall be developed prior to the commencement of construction activities, and revised as necessary to reflect project revisions. The CSMP shall be a part of the Storm Water Pollution Prevention Plan (SWPPP), included as an appendix or separate SWPPP chapter.

   b. Existing dischargers registered under the State Water Board Order No. 99-08-DWQ shall make and implement necessary revisions to their Monitoring Program to reflect the changes in this General Permit in a timely manner, but no later than July 1, 2010. Existing dischargers shall continue to implement their existing Monitoring Programs in compliance with State Water Board Order No. 99-08-DWQ until the necessary revisions are completed according to the schedule above.

   c. When a change of ownership occurs for all or any portion of the construction site prior to completion or final stabilization, the new discharger shall comply with these requirements as of the date the ownership change occurs.

2. Objectives

   The CSMP shall be developed and implemented to address the following objectives:
a. To demonstrate that the site is in compliance with the Discharge Prohibitions and applicable Numeric Action Levels (NALs)/Numeric Effluent Limitations (NELs) of this General Permit.

b. To determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives.

c. To determine whether immediate corrective actions, additional Best Management Practice (BMP) implementation, or SWPPP revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges.

d. To determine whether BMPs included in the SWPPP/Rain Event Action Plan (REAP) are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.

3. **Risk Level 2 – Visual Monitoring (Inspection) Requirements for Qualifying Rain Events**

a. Risk Level 2 dischargers shall visually observe (inspect) storm water discharges at all discharge locations within two business days (48 hours) after each qualifying rain event.

b. Risk Level 2 dischargers shall visually observe (inspect) the discharge of stored or contained storm water that is derived from and discharged subsequent to a qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Stored or contained storm water that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to the discharge during operating hours.

c. Risk Level 2 dischargers shall conduct visual observations (inspections) during business hours only.

d. Risk Level 2 dischargers shall record the time, date and rain gauge reading of all qualifying rain events.

e. Within 2 business days (48 hours) prior to each qualifying rain event, Risk Level 2 dischargers shall visually observe (inspect):

i. all storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources. If needed, the discharger shall implement appropriate corrective actions.
ii. all BMPs to identify whether they have been properly implemented in accordance with the SWPPP/REAP. If needed, the discharger shall implement appropriate corrective actions.

iii. any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

f. For the visual observations (inspections) described in c.i and c.iii above, Risk Level 2 dischargers shall observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

g. Within two business days (48 hours) after each qualifying rain event, Risk Level 2 dischargers shall conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the SWPPP accordingly.

h. Risk Level 2 dischargers shall maintain on-site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

4. Risk Level 2 – Water Quality Sampling and Analysis

a. Risk Level 2 dischargers shall collect storm water grab samples from sampling locations, as defined in Section I.5. The storm water grab sample(s) obtained shall be representative of the flow and characteristics of the discharge.

b. At minimum, Risk Level 2 dischargers shall collect 3 samples per day of the qualifying event.

c. Risk Level 2 dischargers shall ensure that the grab samples collected of stored or contained storm water are from discharges subsequent to a qualifying rain event (producing precipitation of ½ inch or more at the time of discharge).

Storm Water Effluent Monitoring Requirements

d. Risk Level 2 dischargers shall analyze their effluent samples for:

   i. pH and turbidity.
ii. Any additional parameters for which monitoring is required by the Regional Water Board.

5. **Risk Level 2 – Storm Water Discharge Water Quality Sampling Locations**

**Effluent Sampling Locations**

a. Risk Level 2 dischargers shall perform sampling and analysis of storm water discharges to characterize discharges associated with construction activity from the entire project disturbed area.

b. Risk Level 2 dischargers shall collect effluent samples at all discharge points where storm water is discharged off-site.

c. Risk Level 2 dischargers shall ensure that storm water discharge collected and observed represent the effluent in each drainage area based on visual observation of the water and upstream conditions.

d. Risk Level 2 dischargers shall monitor and report site run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs or NELs.

e. Risk Level 2 dischargers who deploy an ATS on their site, or a portion on their site, shall collect ATS effluent samples and measurements from the discharge pipe or another location representative of the nature of the discharge.

f. Risk Level 2 dischargers shall select analytical test methods from the list provided in Table 3 below.

g. All storm water sample collection preservation and handling shall be conducted in accordance with Section I.7 “Storm Water Sample Collection and Handling Instructions” below.

6. **Risk Level 2 – Visual Observation and Sample Collection Exemptions**

a. Risk Level 2 dischargers shall be prepared to collect samples and conduct visual observation (inspections) until the minimum requirements of Sections I.3 and I.4 above are completed. Risk

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4 For example, if there has been concrete work recently in an area, or drywall scrap is exposed to the rain, a pH sample shall be taken of drainage from the relevant work area. Similarly, if sediment laden water is flowing through some parts of a silt fence, samples shall be taken of the sediment-laden water even if most water flowing through the fence is clear.

2009-0009-DWQ as amended by 2010-0014-DWQ September 2, 2009 as modified on November 16, 2010 13
Level 2 dischargers are not required to physically collect samples or conduct visual observation (inspections) under the following conditions:

i. During dangerous weather conditions such as flooding and electrical storms.

ii. Outside of scheduled site business hours.

b. If no required samples or visual observation (inspections) are collected due to these exceptions, Risk Level 2 dischargers shall include an explanation in their SWPPP and in the Annual Report documenting why the sampling or visual observation (inspections) were not conducted.

7. Risk Level 2 – Storm Water Sample Collection and Handling Instructions

a. Risk Level 2 dischargers shall refer to Table 3 below for test methods, detection limits, and reporting units.

b. Risk Level 2 dischargers shall ensure that testing laboratories will receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory), and shall use only the sample containers provided by the laboratory to collect and store samples.

c. Risk Level 2 dischargers shall designate and train personnel to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring Program’s (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).5

8. Risk Level 2 – Monitoring Methods

a. Risk Level 2 dischargers shall include a description of the following items in the CSMP:

i. Visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures.

ii. Sampling locations, and sample collection and handling procedures. This shall include detailed procedures for sample

collection, storage, preservation, and shipping to the testing lab to assure that consistent quality control and quality assurance is maintained. Dischargers shall attach to the monitoring program an example Chain of Custody form used when handling and shipping samples.

iii. Identification of the analytical methods and related method detection limits (if applicable) for each parameter required in Section I.4 above.

b. Risk Level 2 dischargers shall ensure that all sampling and sample preservation are in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including a discharger’s own field instruments for measuring pH and turbidity) should be calibrated and maintained in accordance with manufacturers’ specifications to ensure accurate measurements. Risk Level 2 dischargers shall ensure that all laboratory analyses are conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this General Permit or by the Regional Water Board. With the exception of field analysis conducted by the discharger for turbidity and pH, all analyses should be sent to and conducted at a laboratory certified for such analyses by the State Department of Health Services. Risk Level 2 dischargers shall conduct their own field analysis of pH and may conduct their own field analysis of turbidity if the discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis.

9. Risk Level 2 - Analytical Methods

a. Risk Level 2 dischargers shall refer to Table 3 below for test methods, detection limits, and reporting units.

b. **pH**: Risk Level 2 dischargers shall perform pH analysis on-site with a calibrated pH meter or a pH test kit. Risk Level 2 dischargers shall record pH monitoring results on paper and retain these records in accordance with Section I.14, below.

c. **Turbidity**: Risk Level 2 dischargers shall perform turbidity analysis using a calibrated turbidity meter (turbidimeter), either on-site or at an accredited lab. Acceptable test methods include Standard Method 2130 or USEPA Method 180.1. The results will be recorded in the site log book in Nephelometric Turbidity Units (NTU).
10. Risk Level 2 - Non-Storm Water Discharge Monitoring Requirements

a. Visual Monitoring Requirements:

i. Risk Level 2 dischargers shall visually observe (inspect) each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.

ii. Risk Level 2 dischargers shall conduct one visual observation (inspection) quarterly in each of the following periods: January-March, April-June, July-September, and October-December. Visual observation (inspections) are only required during daylight hours (sunrise to sunset).

iii. Risk Level 2 dischargers shall ensure that visual observations (inspections) document the presence or evidence of any non-storm water discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source. Risk Level 2 dischargers shall maintain on-site records indicating the personnel performing the visual observation (inspections), the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.

b. Effluent Sampling Locations:

i. Risk Level 2 dischargers shall sample effluent at all discharge points where non-storm water and/or authorized non-storm water is discharged off-site.

ii. Risk Level 2 dischargers shall send all non-storm water sample analyses to a laboratory certified for such analyses by the State Department of Health Services.

iii. Risk Level 2 dischargers shall monitor and report run-on from surrounding areas if there is reason to believe run-on may contribute to an exceedance of NALs.

11. Risk Level 2 – Non-Visible Pollutant Monitoring Requirements
a. Risk Level 2 dischargers shall collect one or more samples during any breach, malfunction, leakage, or spill observed during a visual inspection which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water.

b. Risk Level 2 dischargers shall ensure that water samples are large enough to characterize the site conditions.

c. Risk Level 2 dischargers shall collect samples at all discharge locations that can be safely accessed.

d. Risk Level 2 dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.

e. Risk Level 2 dischargers shall analyze samples for all non-visible pollutant parameters (if applicable) - parameters indicating the presence of pollutants identified in the pollutant source assessment required (Risk Level 2 dischargers shall modify their CSMPs to address these additional parameters in accordance with any updated SWPPP pollutant source assessment).

f. Risk Level 2 dischargers shall collect a sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample.

g. Risk Level 2 dischargers shall compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis.\(^6\)

h. Risk Level 2 dischargers shall keep all field/or analytical data in the SWPPP document.

12. Risk Level 2 – Watershed Monitoring Option

Risk Level 2 dischargers who are part of a qualified regional watershed-based monitoring program may be eligible for relief from the requirements in Sections I.5. The Regional Water Board may approve proposals to substitute an acceptable watershed-based monitoring program by determining if the watershed-based monitoring program

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\(^6\) For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136. Field discharge samples shall be collected and analyzed according to the specifications of the manufacturer of the sampling devices employed.
will provide substantially similar monitoring information in evaluating discharger compliance with the requirements of this General Permit.

13. **Risk Level 2 – Particle Size Analysis for Project Risk Justification**

Risk Level 2 dischargers justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and clay on the site.

14. **Risk Level 2 – Records**

Risk Level 2 dischargers shall retain records of all storm water monitoring information and copies of all reports (including Annual Reports) for a period of at least three years. Risk Level 2 dischargers shall retain all records on-site while construction is ongoing. These records include:

a. The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation.

b. The individual(s) who performed the facility inspections, sampling, visual observation (inspections), and or measurements.

c. The date and approximate time of analyses.

d. The individual(s) who performed the analyses.

e. A summary of all analytical results from the last three years, the method detection limits and reporting units, the analytical techniques or methods used, and the chain of custody forms.

f. Rain gauge readings from site inspections;

g. Quality assurance/quality control records and results.

h. Non-storm water discharge inspections and visual observation (inspections) and storm water discharge visual observation records (see Sections I.3 and I.10 above).

i. Visual observation and sample collection exception records (see Section I.6 above).
j. The records of any corrective actions and follow-up activities that resulted from analytical results, visual observation (inspections), or inspections.

15. Risk Level 2 – NAL Exceedance Report

a. In the event that any effluent sample exceeds an applicable NAL, Risk Level 2 dischargers shall electronically submit all storm event sampling results to the State Water Board no later than 10 days after the conclusion of the storm event. The Regional Boards have the authority to require the submittal of an NAL Exceedance Report.

b. Risk Level 2 dischargers shall certify each NAL Exceedance Report in accordance with the Special Provisions for Construction Activity.

c. Risk Level 2 dischargers shall retain an electronic or paper copy of each NAL Exceedance Report for a minimum of three years after the date the annual report is filed.

d. Risk Level 2 dischargers shall include in the NAL Exceedance Report:

i. The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as “less than the method detection limit”).

ii. The date, place, time of sampling, visual observation (inspections), and/or measurements, including precipitation.

iii. A description of the current BMPs associated with the effluent sample that exceeded the NAL and the proposed corrective actions taken.
### Table 3 – Risk Level 2 Test Methods, Detection Limits, Reporting Units and Applicable NALs/NELs

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Method / Protocol</th>
<th>Discharge Type</th>
<th>Min. Detection Limit</th>
<th>Reporting Units</th>
<th>Numeric Action Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Field test with calibrated portable instrument</td>
<td>Risk Level 2 Discharges</td>
<td>0.2</td>
<td>pH units</td>
<td>lower NAL = 6.5 upper NAL = 8.5</td>
</tr>
<tr>
<td>Turbidity</td>
<td>EPA 0180.1 and/or field test with calibrated portable instrument</td>
<td>Risk Level 2 Discharges other than ATS</td>
<td>1</td>
<td>NTU</td>
<td>250 NTU</td>
</tr>
<tr>
<td></td>
<td>For ATS discharges</td>
<td>Risk Level 2 Discharges</td>
<td>1</td>
<td>NTU</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Appendix C – Submitted Permit Registration (Site Map)
Appendix D – SWPPP Amendment Log
Submitted Changes to PRDs (Due to Change in Ownership or Acreage)

Changes to Permit Registration Documents (PRDs), if any, shall be inserted in the following pages.
Appendix G – Construction Schedule

June – October 2017 (See Construction Plans for Detailed Schedule)
Construction Schedule

Detailed construction schedule to be added by project Contractor.
Appendix H – Sample Chain of Custody Forms
**SAMPLE**

**Chain of Custody**

**PROJECT INFORMATION**

<table>
<thead>
<tr>
<th>Project Number:</th>
<th>Project Name:</th>
<th>Purchase Order Number:</th>
</tr>
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</table>

**LAB ID** | **SAMPLE ID** | **DATE** | **TIME** | **MATRIX** |
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**CONTAINER CODES:**

- 1—½ gal. pl;
- 2—250 ml pl;
- 3—500 ml pl;
- 4—1 L Nalgene;
- 5—250 ml BG;
- 6—500 ml BG;
- 7—1 L BG;
- 8—40 ml VOA;
- 9—60 ml VOA;
- 10—125 ml VOA;
- 11—4 oz glass jar;
- 12—8 oz glass jar;
- 13—brass tube;
- 14—other

**PRESERVATIVE CODES:**

- a—HNO₃;
- b—HCl;
- c—H₂SO₄;
- d—Na₂S₂O₃;
- e—NaOH;
- f—C₃H₆O₂Cl;
- g—other

**SAMPLE CONDITION/SPECIAL INSTRUCTIONS**

- Temperature: °C
- Received On Ice? Y / N
- Samples Intact? Y / N
- Preserved? Y / N
- Preserved @ NCL? Y / N / NA

**SAMPLE DISPOSAL**

- □ NCL Disposal of Non-Contaminated
- □ Return
- □ Pickup

**CHAIN OF CUSTOMETY SEALS Y/N/NA**

**SHIPPED VIA:**

- UPS
- Fed-Ex
- Hand

---

**ATTENTION:**

**RESULTS & INVOICE TO:**

**ADDRESS:**

**PHONE:**

**COPIES OF REPORT TO:**

**SAMPLER (SIGN & PRINT):**

---

**LABORATORY NUMBER:**

**TAT:**

- □ STD (2-3 Wk)
- □ Other

**PRIOR AUTHORIZATION IS REQUIRED FOR RUSH SAMPLES.**

---

**ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT.**
Appendix I – CASQA BMP Handbook Fact Sheets
CASQA BMP Fact Sheets

CASQA BMP Fact Sheets will be included in the final version of this document. CASQA BMP Fact Sheets can be made available upon request.
## Risk Level 2

### Visual Inspection Field Log Sheet

<table>
<thead>
<tr>
<th>Date and Time of Inspection:</th>
<th>Report Date:</th>
</tr>
</thead>
</table>

**Inspection Type:**
- □ Weekly
- □ Before predicted rain
- □ During rain event
- □ Following qualifying rain event
- □ Contained stormwater release
- □ Quarterly non-stormwater

### Site Information

**Construction Site Name:**
Salt River Ecosystem Restoration Project – 2018 Construction Phase

**Construction stage and completed activities:**

Approximate area of exposed site:

### Weather and Observations

**Date Rain Predicted to Occur:**

**Predicted % chance of rain:**

**Estimate storm beginning:**

(date and time)

**Estimate storm duration:**

(hours)

**Estimate time since last storm:**

(days or hours)

**Rain gauge reading:**

(inches)

**Observations:** If yes identify location

- Odors
  - Yes □ No □
- Floating material
  - Yes □ No □
- Suspended Material
  - Yes □ No □
- Sheen
  - Yes □ No □
- Discolorations
  - Yes □ No □
- Turbidity
  - Yes □ No □

### Site Inspections

**Outfalls or BMPs Evaluated**

<table>
<thead>
<tr>
<th>Deficiencies Noted</th>
</tr>
</thead>
<tbody>
<tr>
<td>(add additional sheets or attached detailed BMP Inspection Checklists)</td>
</tr>
</tbody>
</table>

**Photos Taken:**

- Yes □ No □

**Photo Reference IDs:**

**Corrective Actions Identified (note if SWPPP/REAP change is needed)**

### Inspector Information

<table>
<thead>
<tr>
<th>Inspector Name:</th>
<th>Inspector Title:</th>
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<table>
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<tr>
<th>Signature:</th>
<th>Date:</th>
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</table>
## Risk Level 2

**Effluent Sampling Field Log Sheets**

<table>
<thead>
<tr>
<th>Construction Site Name:</th>
<th>Date:</th>
<th>Time Start:</th>
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<table>
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<tr>
<th>Sampler:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sampling Event Type:</th>
<th>□ Stormwater</th>
<th>□ Non-stormwater</th>
<th>□ Non-visible pollutant</th>
</tr>
</thead>
</table>

### Field Meter Calibration

<table>
<thead>
<tr>
<th>pH Meter ID No./Desc.:</th>
<th>Turbidity Meter ID No./Desc.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibration Date/Time:</td>
<td>Calibration Date/Time:</td>
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</tbody>
</table>

### Field pH and Turbidity Measurements

<table>
<thead>
<tr>
<th>Sample ID and Discharge Location Description</th>
<th>pH</th>
<th>Turbidity</th>
<th>Time</th>
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### Grab Samples Collected

<table>
<thead>
<tr>
<th>Sample ID and Discharge Location Description</th>
<th>Sample Type</th>
<th>Time</th>
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</table>

### Additional Sampling Notes:

<table>
<thead>
<tr>
<th>Time End:</th>
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</table>

This document is in draft form. The contents, including any opinions, conclusions or recommendations contained in, or which may be implied from, this draft document must not be relied upon. GHD reserves the right, at any time, without notice, to modify or retract any part or all of the draft document. To the maximum extent permitted by law, GHD disclaims any responsibility or liability arising from or in connection with this draft document.
Appendix K – Site Specific Rain Event Action Plan (Forms and Completed Plans)
Site Specific Rain Event Action Plan

A Rain Event Action Plan (REAP) template is included in this attachment. The Qualified SWPPP Practitioner shall customize the template for each rain event. Completed REAPs shall be maintained on site in this Appendix.
**Rain Event Action Plan (REAP)**

<table>
<thead>
<tr>
<th>Date:</th>
<th>WDID Number:</th>
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</table>

<table>
<thead>
<tr>
<th>Date Rain Predicted to Occur:</th>
<th>Predicted % chance of rain:</th>
</tr>
</thead>
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</table>

**Site Information:**

Site Name, City and Zip Code

Project Risk Level: □ Risk Level 2 □ Risk Level 3

**Site Stormwater Manager Information:**

Name, Company, Emergency Phone Number (24/7)

**Erosion and Sediment Control Contractor – Labor Force contracted for the site:**

Name, Company, Emergency Phone Number (24/7)

**Stormwater Sampling Agent:**

Name, Company, Emergency Phone Number (24/7)

**Current Phase of Construction**

*Check ALL the boxes below that apply to your site.*

- □ Grading and Land Development □ Vertical Construction □ Inactive Site
- □ Streets and Utilities □ Final Landscaping and Site Stabilization □ Other:

**Activities Associated with Current Phase(s)**

*Check ALL the boxes below that apply to your site (some apply to all Phases).*

**Grading and Land Development:**

- □ Demolition □ Vegetation Removal □ Vegetation Salvage-Harvest
- □ Rough Grade □ Finish Grade □ Blasting
- □ Soils Amendment(s): □ Excavation (_____ ft) □ Soils Testing
- □ Rock Crushing □ Erosion and Sediment Control □ Surveying
- □ Equip. Maintenance/Fueling □ Material Delivery and Storage □ Other:

**Streets and Utilities:**

- □ Finish Grade □ Utility Install: water-sewer-gas □ Paving Operations
- □ Equip. Maintenance/Fueling □ Storm Drain Installation □ Material Delivery & Storage
- □ Curb and Gutter/Concrete Pour □ Masonry □ Other:

**Vertical Construction:**

- □ Framing □ Carpentry □ Concrete/Forms/Foundation
- □ Masonry □ Electrical □ Painting
- □ Drywall/Interior Walls □ Plumbing □ Stucco
- □ Equip. Maintenance/Fueling □ HVAC □ Tile
- □ Exterior Siding □ Insulation □ Landscaping & Irrigation
- □ Flooring □ Roofing □ Other:

**Final Landscaping & Site Stabilization:**

- □ Stabilization □ Vegetation Establishment □ E&S Control BMP Removal
- □ Finish Grade □ Storage Yard/ Material Removal □ Landscape Installation
- □ Painting and Touch-Up □ Irrigation System Testing □ Other:
- □ Drainage Inlet Stencils □ Inlet Filtration □ Perm. Water Quality Ponds
- □ Other: □ Other: □ Other:

**Inactive Construction Site:**

- □ E & S Control Device Installation □ Routine Site Inspection □ Trash Removal
- □ E & S Control Device Maintenance □ Street Sweeping □ Other:

Continued on next page.
## Rain Event Action Plan (REAP)

<table>
<thead>
<tr>
<th>Date:</th>
<th>WDID Number:</th>
</tr>
</thead>
</table>

### Trades Active on Site during Current Phase(s)

Check ALL the boxes below that apply to your site.

- □ Storm Drain Improvement
- □ Street Improvements
- □ Material Delivery
- □ Trenching
- □ Concrete Pouring
- □ Foundation
- □ Demolition
- □ Material Delivery
- □ Tile Work- Flooring
- □ Drywall
- □ HVAC installers
- □ Exterior Siding
- □ Insulation
- □ Fireproofing
- □ Steel Systems

- □ Grading Contractor
- □ Water Pipe Installation
- □ Sewer Pipe Installation
- □ Gas Pipe Installation
- □ Electrical Installation
- □ Communication Installation
- □ Erosion and Sediment Control
- □ Equipment
- □ Utilities, e.g., Sewer, Electric
- □ Roofers
- □ Stucco
- □ Masons
- □ Landscapers
- □ Riggers
- □ Utility Line Testers

- □ Surveyor- Soil Technician
- □ Sanitary Station Provider
- □ Electrical
- □ Carpenter
- □ Plumbing
- □ Masonry
- □ Water, Sewer, Electric Utilities
- □ Rock Products
- □ Painters
- □ Carpenters
- □ Pest Control: e.g., termite prevention
- □ Water Feature Installation
- □ Utility Line Testers
- □ Irrigation System Installation
- □ Other:

### Trade Contractor Information Provided

Check ALL the boxes below that apply to your site.

- □ Educational Material Handout
- □ Contractual Language
- □ Other:

- □ Tailgate Meetings
- □ Fines and Penalties
- □ Other:

- □ Training Workshop
- □ Signage
- □ Other:

Continued on next page.
Rain Event Action Plan (REAP)

Date of REAP

WDID Number:

Date Rain Predicted to Occur: Predicted % chance of rain:

Predicted Rain Event Triggered Actions

Below is a list of suggested actions and items to review for this project. Each active Trade should check all material storage areas, stockpiles, waste management areas, vehicle and equipment storage and maintenance, areas of active soil disturbance, and areas of active work to ensure the proper implementation of BMPs. Project-wide BMPs should be checked and cross-referenced to the BMP progress map.

<table>
<thead>
<tr>
<th>Trade or Activity</th>
<th>Suggested action(s) to perform / item(s) to review prior to rain event</th>
</tr>
</thead>
</table>
| Information & Scheduling| - Inform trade supervisors of predicted rain  
                          - Check scheduled activities and reschedule as needed  
                          - Alert erosion/sediment control provider  
                          - Alert sample collection contractor (if applicable)  
                          - Schedule staff for extended rain inspections (including weekends & holidays)  
                          - Check Erosion and Sediment Control (ESC) material stock  
                          - Review BMP progress map  
                          - Other:________________________________________________________________________
|                         |________________________________________________________________________
|                         |________________________________________________________________________
|                         |________________________________________________________________________
| Material storage areas  | - Material under cover or in sheds (ex: treated woods and metals)  
                          - Perimeter control around stockpiles  
                          - Other:________________________________________________________________________
|                         |________________________________________________________________________
|                         |________________________________________________________________________
| Waste management areas  | - Dumpsters closed  
                          - Drain holes plugged  
                          - Recycling bins covered  
                          - Sanitary stations bermed and protected from tipping  
                          - Other:________________________________________________________________________
|                         |________________________________________________________________________
|                         |________________________________________________________________________
| Trade operations        | - Exterior operations shut down for event (e.g., no concrete pours or paving)  
                          - Soil treatments (e.g., fertilizer) ceased within 24 hours of event  
                          - Materials and equipment (ex: tools) properly stored and covered  
                          - Waste and debris disposed in covered dumpsters or removed from site  
                          - Trenches and excavations protected  
                          - Perimeter controls around disturbed areas  
                          - Fueling and repair areas covered and bermed  
                          - Other:________________________________________________________________________
|                         |________________________________________________________________________
|                         |________________________________________________________________________
| Site ESC BMPs           | - Adequate capacity in sediment basins and traps  
                          - Site perimeter controls in place  
                          - Catch basin and drop inlet protection in place and cleaned  
                          - Temporary erosion controls deployed  
                          - Temporary perimeter controls deployed around disturbed areas and stockpiles  
                          - Roads swept; site ingress and egress points stabilized  
                          - Other:________________________________________________________________________
|                         |________________________________________________________________________
|                         |________________________________________________________________________
| Concrete rinse out area | - Adequate capacity for rain  
                          - Wash-out bins covered  
                          - Other:________________________________________________________________________
|                         |________________________________________________________________________
|                         |________________________________________________________________________
| Spill and drips         | - All incident spills and drips, including paint, stucco, fuel, and oil cleaned  
                          - Drip pans emptied  
                          - Other:________________________________________________________________________
|                         |________________________________________________________________________
|                         |________________________________________________________________________

Continued on next page.
Attach a printout of the weather forecast from the NOAA website to the REAP.

I certify under penalty of law that this Rain Event Action Plan (REAP) will be performed in accordance with the General Permit by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Date: __________________________

Qualified SWPPP Practitioner (Use ink please)
Appendix L – Training Reporting Form
Storm Water Pollution Prevention Training Log

Instructor’s Name(s):

Instructor’s Title(s):

Course Location:  Date:  

Course Length (hours): __

Stormwater Training Topic:  (check as appropriate)

- Erosion Control BMPs
- Emergency Procedures

- Sediment Control BMPs
- Good Housekeeping BMPs

- Non-Stormwater BMPs

Specific Training Objective: _____________

Attendee Roster:  (attach additional pages as necessary)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Attendee</th>
<th>Company</th>
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</tbody>
</table>
Appendix M – Responsible Parties
<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Phone Number</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Responsible Party (LRP)</td>
<td>Humboldt County Resource Conservation District</td>
<td>(707) 498-9716</td>
<td>5630 South Broadway Eureka, CA 95503</td>
</tr>
<tr>
<td>Approved Signatory</td>
<td>Summer Daugherty</td>
<td>(707) 498-9716</td>
<td>5630 South Broadway Eureka, CA 95503</td>
</tr>
<tr>
<td>Qualified SWPPP Developer</td>
<td>Jeremy Svehla, P.E.</td>
<td>(707) 407-7206</td>
<td>GHD, Inc. 718 3rd Street, Eureka CA 95501</td>
</tr>
<tr>
<td>Qualified SWPPP Practitioner</td>
<td>Jeremy Svehla, P.E.</td>
<td>(707) 407-7206</td>
<td>GHD, Inc. 718 3rd Street, Eureka CA 95501</td>
</tr>
</tbody>
</table>
Appendix N – Contractors and Subcontractors
**SWPPP Implementation Team:**
The Owner (Humboldt County Resource Conservation District) and the Contractor (Hanford A.R.C.) are jointly responsible for the implementation and management of the SWPPP, with the Owner having ultimate responsibility. The Owner, as required by the General Permit conditions as the discharger, will retain records of all monitoring information, copies of all reports required by the General Permit, and records of all data used to complete the NOI for all construction activities for a period of at least three years from the date generated.

Upon award of the construction contract the Contractor shall provide name/s and phone number/s for foremen in charge of the site in the space provided below. The Contractor will be responsible for implementing, monitoring, inspecting, and maintaining BMPs to accomplish the goals set forth in this SWPPP. The Contractor will also be responsible for providing equipment, materials, and workers to implement this plan as well as being available for rapid response to BMP failures and emergencies.

**List of Contractors:**

*Prime Contractor:*  
Phone:  
Address:  
Main Contact/Foreman:  
Emergency Phone No.  
Secondary Contact:  
Emergency Phone No.

*Sub Contractor:*  
Phone:  
Address:  
Main Contact/Foreman:  
Emergency Phone No.  
Area of Responsibility:  

*Sub Contractor:*  
Phone:  
Address:  
Main Contact/Foreman:  
Emergency Phone No.  
Area of Responsibility:
1. Lessee acknowledges land described in Section 3 is subject to Public Trust and is presently available to members of the public for recreation, waterborne commerce, navigation, fisheries, open space, or other recognized Public Trust uses and that Lessee’s proposed construction activities and use of the Lease Premises shall not interfere or limit the Public Trust rights of the public.

2. Thirty (30) days prior to the start of the project construction activities Lessee shall:
   a. Lessee shall submit final plans for Phase I construction that substantially conform with the Phase I construction 75 percent design plans. Lessee shall submit to Lessor copies of all permits and authorizations from agencies having jurisdiction over the authorized activities on the Lease Premises.
   b. Lessor shall comply with all the mitigation measures as set forth in Exhibit B, Salt River Ecosystem Restoration Project Mitigation Measures, attached and by this reference made a part hereof.

3. All times during construction, Lessee agrees to install precautionary signage or warning buoys upstream and downstream of the Lease Premises in order to provide adequate warning notices to recreational users on the Salt River and Smith Creek of the potential safety hazards associated with project construction.

4. Personal property, tools, or equipment taken onto or placed upon the Lease Premises shall remain the property of the Lessee or its contractors. Such personal property shall be promptly removed by the Lessee, at its sole risk and expense upon the completion of the project. Lessor does not accept any responsibility for any damage, including damages to any personal property, including any equipment, tools, or machinery on the Lease Premises.

5. In the event that any refueling, repairs, staging, or maintenance of equipment during the construction phase of the project on the Lease Premises, these activities shall not result in a discharge or threatened discharge to any waters of the State including dry portions of the streambank and streambed. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment will be accomplished in accordance with Best Management Practices and the Storm Water Pollution Prevention Plan (SWPPP) as identified in the Mitigation Monitoring and Reporting Program prepared and adopted by the Humboldt County Resource Conservation District on February 24, 2011.

6. Any equipment to be used on the Lease Premises is limited to that which is directly required to perform the authorized use and does not include any equipment that may cause damage to the Lease Premises.

7. Excavated, dredged, and construction materials shall not be stockpiled or deposited near or on wash banks or other water course perimeters where they can be washed away by high water or storm runoff, or can erode, in any way, upon the watercourse.

8. The amount of sediment to be excavated/dredged shall be balanced according to the need for cut and fill on site only and shall not be sold. Any excess debris and waste shall be disposed of at an authorized disposal site capable of receiving such materials.

9. This lease does not authorize Lessee to use dredged or excavated materials for purposes of commercial resale, environmental mitigation credits, or other private benefit. No royalty shall be paid for material placed at approved disposal sites and which is used for public benefit.

10. Lessee shall safely conduct all dredging or excavated disposal operations in accordance with accepted dredging and disposal methods and practices and with due regard for the protection of life and property, preservation of the environment, and conservation of natural resources.

11. At all times during the term of the Lease Lessee shall maintain authorization from the adjacent owners for access to the Lease Premises.

12. Any changes in the final plans for Phase I of the Salt River Ecosystem Restoration Project shall be submitted to the Lessor for Lessor’s staff review and approval.

13. Lessor’s APPROVAL: Whenever this Lease calls for the approval of Lessor, that approval may be given by Lessor’s Executive Officer or his/her delegate. If the Executive Officer of his/her delegate denies approval, Lessee may appeal that denial to the State Lands Commission at the Commission’s next available public meeting.

14. Lessee shall provide a certificate of liability insurance coverage in the amount of not less than $2,000,000 with the following assurances (a) through (e) to be expressly stated on or attached to the certificate of insurance:
   a. That the State of California, its officers, agents, employees, and servants are included as additional insured, but only so far as the operations under this lease are concerned.
   b. That the insurer will not cancel the insured’s coverage without 30 days prior written notice to the State.
   c. That the policy specifically identifies the Lease by number, W 28450.
   d. That the State will not be responsible for any premiums or other assessments on the policy.
   e. That the insurance coverage provided by the insured is primary and noncontributing.
5. The Applicant shall provide Regional Water Board staff access to the project site to document compliance with this certification.

6. The Applicant shall construct the project in accordance with the project described in the application and the findings above, and shall comply with all applicable water quality standards as detailed in the Basin Plan.

7. Prior to implementing any change to the project that may have a significant or material effect on the findings, conclusions, or conditions of this Order, the Applicant shall obtain the written approval of the Regional Water Board Executive Officer. If the Regional Water Board is not notified of a significant alteration to the project, it will be considered a violation of this Order, and the Applicant may be subject to Regional Water Board enforcement action(s).

8. The mitigation measures that are detailed in the Environmental Impact Report (SCH No. 2007062303) are hereby incorporated by reference and are conditions of approval of this certification. Notwithstanding any more specific conditions in this certification, the Applicant shall implement and comply with all mitigation measures identified in the Environmental Impact Report that are within the Regional Water Board’s jurisdiction.

9. The Applicant shall implement the HMMP. Annual mitigation monitoring reports shall be submitted to the Regional Water Board by December 31 of each monitoring year. The first mitigation monitoring report shall be submitted to this office within one year of beginning ground disturbing activities on the project. Monitoring reports shall be developed in accordance to the HMMP, per the proposed monitoring schedule and include maps of the monitoring areas, representative photos, methods used to collect and analyze the data, results of the data analysis, a discussion of the results, and conclusions regarding the condition of the monitoring sites. Monitoring reports shall also include a discussion of any additional actions required to achieve the final success criteria. A final mitigation monitoring report, including a post-mitigation wetland delineation, shall be submitted which clearly demonstrates adequate and successful wetland creation.

10. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities or any other project activities that could result in erosion or sediment discharges to surface waters. All BMPs shall be installed properly and in accordance with the manufacturer’s specifications.

11. The Applicant shall prioritize the use of wildlife-friendly biodegradable (not photo-degradable) erosion control products wherever feasible. The Applicant shall not use or allow the use of erosion control products that contain synthetic materials within waters of the United States or waters of the State at any time. The Applicant shall not use or allow the use of erosion control products that contain synthetic netting for permanent erosion control (i.e. erosion control materials to be left in place for two years or after the completion date of the project). If the Applicant finds that erosion control netting or products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products. The Applicant shall request approval from the Regional Water Board if an exception from this requirement is needed for a specific location.

12. This Order provides an allowable zone of turbidity dilution within which turbidity levels may be increased by more than 20 percent above naturally occurring background levels. To ensure that turbidity levels do not exceed this threshold, the Applicant shall monitor turbidity levels upstream within 50 feet of project activities (i.e. natural background turbidity) and 500 feet (or less) downstream of the in-channel construction activities that are increasing background turbidity levels. Turbidity monitoring is not required within channel excavation areas that are isolated flowing waters for the purpose of dewatering and channel excavation, and any turbid waters are contained within a previously isolated area of the channel. At a minimum, field turbidity measurements shall be collected whenever a visible increase in turbidity is observable in waters that are not isolated by berms or similar BMPs.

13. Turbidity levels shall be measured in Nephelometric Turbidity Units (NTU) using a calibrated turbidity meter. Measurements shall be taken where turbidity levels appear to be the highest in the channel based on visual observation. Monitoring frequency shall be a minimum of every two hours during in-channel work periods and when activities commence that are likely to increase turbidity levels above any previously monitored levels. If grab sample results indicate that turbidity levels exceed 20 NTU at 500 feet downstream from the construction activities causing the turbidity increase, remedial actions shall be implemented to reduce and maintain turbidity levels at or below 20 NTU immediately downstream of the 500 linear foot zone of dilution. Potential remedial actions shall include halting or slowing construction activities and implementation of additional BMPs until turbidity levels are at or below 20 NTU. If naturally occurring background levels are greater than 20 NTUs, turbidity levels downstream of the 500 linear foot zone of dilution shall not be increased by more than 20 percent above the naturally occurring background level.

14. The Regional Water Board shall be notified promptly and in no case more than 24 hours after any monitoring results indicate an unauthorized increase in turbidity. A monitoring report containing turbidity measurements shall be submitted in a tabular format to the Regional Water Board within 30 days of measuring any increase(s) in turbidity levels that exceed the turbidity thresholds specified above. A monitoring report containing all turbidity measurements shall be submitted in a tabular format to the Regional Water Board within 30 days of the completion of each construction phase. All monitoring reports shall be written in a manner that clearly demonstrates compliance with all water quality monitoring requirements.

15. Rainy Day Reports: The Applicant shall take photos of all areas disturbed by project activities, including all materials disposal areas, after rainfall events that generate visible runoff from these areas in order to demonstrate that erosion control and revegetation measures are present and have been installed appropriately and successfully. A brief report containing these photos shall be submitted within 30 days of the first rainfall event that generates runoff from the disturbed areas. Once the site has demonstrated appropriate and effective erosion and sediment control, the Applicant may request a reprieve from this condition from the Regional Water Board.

16. If construction dewatering of groundwater is found to be necessary, the Applicant shall use a method of water disposal other than disposal to surface waters (such as land disposal) or the Applicant shall apply for coverage under Order No. R1-2009-0045, Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region or individual National Pollutant Discharge Elimination System Permit and shall receive notification of coverage to discharge to surface waters prior to initiating any groundwater dewatering discharges to surface waters.

17. No debris, soil, silt, sand, bark, trash, sawdust, rubbish, cement or concrete washings, oils or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this Order, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State. When operations are completed, any excess material or debris shall be removed from the work area.
37. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment shall not result in a discharge or threatened discharge to any waters of the State including dry portions of the streambank and streambed. At no time shall the Applicant or its contractors allow use of any vehicle or equipment which leaks any substance that may impact water quality.

38. The Applicant shall provide a copy of this Order and State Water Resources Control Board (SWRCB) Order No. 2003-0017-DWQ to any contractor(s), subcontractor(s), and utility company(ies) conducting work on the project, and shall require that copies remain in their possession at the work site. The Applicant shall be responsible for ensuring that all work conducted by its contractor(s), subcontractor(s), and utility companies is performed in accordance with the information provided by the Applicant to the Regional Water Board.

39. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises, the associated project activities shall cease immediately until adequate BMPs are implemented and stopping work. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.

40. Spill kits are required at each fueling location and at each location where power equipment will be working within waters of the State. In the event of an unauthorized release of fuel (spill or leak) to waters of the State, the Applicant shall immediately stop work and conduct the following measures:
   a) notify the appropriate agencies including the Regional Water Board, CDFG, and the Office of Emergency Services (OES) at 1(800) 852-7550;
   b) utilize the appropriate spill kits for containment and clean up of the release;
   c) collect samples within the immediate area of release, 50 feet downstream and downstream of the full extent of the release if the release reaches surface waters; and,
   d) analyze required surface water samples for all appropriate constituents including but not limited to total petroleum hydrocarbons as diesel (TPH-D), total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethylbenzene, total xylenes (BTEX).

41. Any potentially hazardous waste(s) (solids, liquids, or slurries) derived or encountered during this project shall undergo the appropriate characterization to demonstrate compliance with all applicable waste disposal laws and regulations.

42. The Regional Water Board may add to or modify the conditions of this Order, as appropriate, to implement any new or revised water quality standards and implementation plans adopted and approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

43. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process 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 Order. In response to a suspected violation of any condition of this certification, the State Water Board may require the holder of any federal permit or license subject to this Order 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 be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this Order, the Regional Water Board may add to or modify the conditions of this Order as appropriate to ensure compliance.

44. To discharge dredged or fill material under this Order, the successor-in-interest must send to the Regional Water Board Executive Officer a written request for transfer of the Order. The request must contain the request entity’s full legal name, the state of incorporation if a corporation, and the address and telephone number of the person(s) responsible for contact with the Regional Water Board. The request must also describe any changes to the project proposed by the successor-in-interest or confirm that the successor-in-interest intends to implement the project as described in this Order.

45. Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited to and all proposed mitigation being completed in strict compliance with the Applicant’s project description, and b) compliance with all applicable requirements of the Water Quality Control Plan for the North Coast Region (Basin Plan).

46. The authorization of this certification for activities associated with implementation of Phase 1 and Phase 2 expires on October 15, 2016. The authorization of this certification for maintenance activities associated with the AMP expires on October 15, 2022. Conditions and monitoring requirements outlined in this Order and the HMMP are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

47. The conditions of the Department of Public Works memo dated November 23, 2010 included in Attachment 4, shall be completed or secured to the satisfaction of that Department. Prior to performing any work related to the project, contact the Land Use Division of the Department of Public Works.

48. The applicant shall apply for and obtain a Coastal Development Permit from the California Coastal Commission prior to project implementation.

49. The Applicant shall provide a copy of this Order to the Humboldt County Building Inspector and the Office of Emergency Services (OES) at 1(800) 852-7550 before commencing work on individual properties.

50. The applicant shall contact the Del Oro Water Company to assure protection of the water line crossing the East Side Drainage ditch on the upstream side of the bridge located on or near Assessor Parcel Number 100-062-33.

51. The applicant shall comply with North Coast Unified Air Quality Management District Rule 104 Section 4.0 regarding the control of fugitive dust.

52. The applicant is required to file a request for permit processing on a time and material basis as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors. Any and all outstanding Planning fees to cover the processing of the application to decision by the Hearing Officer shall be paid to the Humboldt County Planning Division, 3015 "H" Street, Eureka. The Department shall provide a bill to the applicant upon file close out after the Planning Commission decision.

53. No restoration activities shall occur on Riverside Ranch that would conflict with the Williamson Act.
1. (for life of project "ongoing") Approval of this permit is based on information in the Final Environmental Impact Report (SCH# SD2007-05-06) incorporated fully herein by reference, including the project description, long-term maintenance and monitoring program (i.e., adaptive management plan), restoration and revegetation plans, and mitigation and monitoring and reporting program, and shall be operated in accordance with these descriptions. Changes to the project, except for Minor Deviations to the approved plot plan as provided under Section 312-11.1 of the Zoning Regulations, shall require prior approval by the Planning Director and may require the modification of this Use Permit.

2. (for life of project "ongoing") All mitigation measures identified in the Final Environmental Impact Report shall be implemented consistent with the Mitigation Monitoring and Reporting Program.

Mitigation 3.1.1.2.1: Prepare and implement SWPPP
Prior to construction of the Salt River Ecosystem Restoration Project, the Humboldt County Resource Conservation District shall obtain authorization from the North Coast RWQCB. As part of this application process, the applicant shall develop a SWPPP and identify Best Management Practices (BMPs) for controlling soil erosion and the discharge of construction related contaminants. BMPs shall be monitored as specified in the SWPPP for successful implementation. This mitigation measure shall apply to all portions of the Salt River Ecosystem Restoration Project and related projects that involve construction activities. The SWPPP shall be prepared prior to any construction on any portion of the project, and implemented during construction. Individual SWPPPs may be prepared for various construction components or phases (e.g., demolition of existing site structures, grading of one parcel, dredging channels, etc.).

Mitigation 3.1.1.2.2: Implement dewatering restrictions
Ponded storm or groundwater in construction areas shall not be dewatered by project contractors directly into adjacent surface waters or to areas where they may flow to surface waters unless authorized by a permit from the North Coast RWQCB. In the absence of a discharge permit, ponded water (or other water removed for construction purposes), shall be pumped into tanks or other receptacles, characterized by water quality analysis, and remediated (e.g., filtered) and/or disposed of appropriately based on results of analysis. If determined to be of suitable quality, some of this water may be used on-site for dust control purposes.

Mitigation 3.1.1.2.3: Implement contractor training for protection of water quality
All contractors that would be performing demolition, construction, grading, or other work that could cause increased water pollution conditions at the site (e.g., disposal of soils) shall receive training regarding the environmental sensitivity of the site and need to minimize impacts. Contractors also shall be trained in implementation of stormwater BMPs for protection of water quality.

Mitigation 3.1.1.2.4: Minimize potential pollution caused by inundation
Sites shall not be inundated (connected to tidal water or upstream freshwater sources) until surface soil conditions have been stabilized, all construction debris removed, and all surface soils have been removed from the site. (Pre Inundation to Any Site)

Mitigation 3.1.1.2.5: In-stream erosion and water quality control measures during channel dredging
In instances where excavation and/or dredging occurs in an effort to widen/deepen the existing Salt River Channel, in-stream erosion and turbidity control measures shall be implemented. These measures include installation and maintenance of in-stream turbidity curtains and silt-fence along channel banks as specified in project designs, specifications and erosion control plans. (Prior to any excavation)

Mitigation 3.1.1.3: Implement water quality monitoring and maintenance plan
The long-term monitoring plan shall routinely screen project water quality and source areas leading to degraded water quality. Maintenance and adaptive management strategies shall be designed and implemented under the plan to modify the morphology of poor water quality source areas.
| Mitigation 3.1.1.7: Implement erosion monitoring and maintenance plan |
| To ensure no long-term adverse impacts, the project includes a long-term monitoring and maintenance plan that would monitor for excessive erosion and sediment accumulation and prescribe remedies in the form of channel adjustments and sediment excavation on an "as-needed" basis. Monitoring shall be conducted pursuant to the longtime monitoring and maintenance plan. Specific criteria will be developed and stipulated in the plan that will trigger the need for adaptive management and/or maintenance activities. If erosion is so great that it causes water quality impairments, improvements such as channel armoring shall be implemented to manage and reduce erosion. |
| FEIR Both |

| Mitigation 3.1.1.9.1: Armor berms and wetland fringe |
| Restoration design shall account for wind-wave erosion control measures in project design that shall include bioengineering and/or hard-bank stabilization measures. Bioengineering methods may include the planting of specific vegetation species that thrive in anticipated environments (accounting for inundation depth-duration-frequency) such as tules or willows and/or installation of large-wood structures such as bank reventions. Hard-bank stabilization measures pertain to the placement of rock and or rip-rap (or other suitable materials) to effectively protect shoreline banks from erosion. (Prior to approval of final design) |
| FEIR Both |

| Mitigation 3.1.1.9.2: Implement erosion monitoring and maintenance plan |
| The Monitoring and Mitigation Plan shall include measures to identify and evaluate erosion problems that evolve in response to wind-waves. Similar to the other erosion monitoring and mitigation components, the Plan shall include wind-wave erosion criteria and thresholds that, if exceeded, will trigger maintenance and/or adaptive management measures to repair and eliminate erosional problems. |
| FEIR Both |

| Mitigation Measure 3.3.1-2: Preconstruction surveys and possible installation of nest boxes |
| Before riparian areas are cleared, a count of mature trees with available cavities shall be taken to roughly estimate the number of cavities being lost. If the survey and an analysis by a qualified individual demonstrates that the project would result in inadequate habitat remaining for cavity nesters, nest boxes shall be erected to match, as closely as possible, the lost value. Should the findings of the surveys result in the conclusion that nest boxes are not necessary, this mitigation measure would not be required. (Prior to any clearing of riparian areas) |
| FEIR Both |

| Mitigation Measure 3.3.1-3: Minimizing construction-related disturbance to sensitive habitats |
| - The locations of any sensitive habitats to be avoided shall be clearly identified in the contract documents (plans and specifications). |
| - Before clearing and grubbing commences; construction and staging areas shall be flagged to clearly define the limits of the work area. These areas shall be clearly identified on the contract documents (plans and specifications). |
| - Contractors awarded contract packages shall sign a document stating that they have read, agree to, and understand the required resource avoidance measures, and shall have construction crews participate in a training session on sensitive area resources. |
| - A qualified biologist shall be on-site to observe construction activities as appropriate when construction in or adjacent to sensitive habitat such as wetlands or special status species locations occurs. |
| - Site disturbance shall be minimized to the greatest extent possible by using existing disturbed areas for access roads and staging areas, and concentrating the area of disturbance associated with restoration actions to the minimum necessary to complete the project. Where feasible, temporary measures for access or construction, such as the use of temporary tracks or pads, shall be used to minimize impacts. |
| - Restoration activities to restore ecological function and integrity to disturbed habitats, such as revegetation, shall take place as rapidly as possible following habitat disturbance. |
| FEIR Both |

| Mitigation Measure 3.3.1-5.1: Pre-construction removal of dense-flowered cordgrass |
| In order to reduce the likelihood of dense-flowered cordgrass colonizing restored tidal marsh at Riverside Ranch, existing populations in and adjacent to the project area shall be controlled prior to construction using manual, mechanical, and/or approved chemical methods. |
| FEIR Phase I |

| Mitigation Measure 3.3.1-5.2: Monitoring and removal of noxious weeds in restored habitats in the project area |
| Levels of noxious weeds in restored riparian and tidal marsh habitats shall be monitored after project implementation. Noxious weed removal shall be conducted as part of project maintenance over the lifetime of the project. Noxious weed removal techniques shall be described in the management plans for the Salt River and Riverside Ranch, which shall be prepared in consultation with DFG, FWS, and NMFS. |
| FEIR Both |

| Mitigation 3.3.1-6: Minimize, avoid, and compensate for impacts to sensitive plants |
| Mitigation for special status plant species is addressed collectively for all species, with modifications noted for individual species. Significant impacts to special-status plant species present or likely to be present onsite shall be minimized, avoided, and contingently compensated by complying with the following: |
| - Pre-construction surveys: Potential habitat for special-status plant species shall be surveyed in appropriate seasons for optimal species-specific detection prior to project excavation/dredging, fill, drainage, or flooding activities associated with project construction. Survey methods shall comply with CNPS/CDFG rare plant survey protocols, and shall be performed by qualified field botanists. Surveys shall be modified to include detection of juvenile (pre-flowering) colonies of perennial species when necessary. Any populations of special status plant species that are detected shall be mapped. Populations shall be flagged if avoidance is feasible and population is located adjacent to construction areas. Special Status plant surveys were conducted between May and August 2010 in the project area for channel restoration and Riverside Ranch restoration. These surveys documented populations of Lyngbye’s sedge and Humboldt Bay owl’s clover described above. Special status plant surveys would be conducted in the project area for upslope sediment reduction components of the project where work would be conducted in suitable habitat. For example, maple-leaved checkerblom (Sidalcea malachroides) may occur in broadleafed upland forest or North Coast coniferous forest, often in disturbed areas, and Howell’s montia (Montia howelli) has been documented on roadsides in North Coast coniferous forest in the Wildcat Mountains and may occur in upslope sediment reduction areas. Surveys for these and other special status plant surveys with potential to occur in the upslope sediment reduction areas listed in Table 3.3-3 shall be conducted prior to upslope sediment reduction project implementation. |
| FEIR Both |
Mitigation 3.3.1.6: Minimize, avoid, and compensate for impacts to sensitive plants (cont)

- The locations of any special status plant populations to be avoided shall be clearly identified in the contract documents (plans and specifications).

- If special status plant populations are detected where construction would have unavoidable impacts, a compensatory mitigation plan shall be prepared and implemented in coordination with USFWS or DFG. Such plans may include salvage, propagation, on-site reintroduction in restored habitats, and monitoring. Plans have been developed for Lyngbye’s sedge, Humboldt Bay owl’s clover, and eelgrass. These plans are available from the HRCRD, and will be further revised in consultation with regulatory agencies. The plans include the following measures:

- Impacts to these species shall be avoided or minimized to the extent feasible. If feasible, impacts to these species will be minimized by restricting channel excavation in the portions of the lower Salt River where they are found to a single bank of the channel (e.g. only the east bank). It should be noted that populations of owl’s clover can fluctuate dramatically between years (Pickart 2001), making the number of individuals impacted difficult to predict.

- Humboldt Bay owl’s clover: A qualified botanist shall collect and conserve seed from local populations of Humboldt Bay owl’s clover. These seeds shall be used to replant a population of this species to mitigate for the population lost to construction impacts. The project area shall be monitored for five years and compared with a reference population to determine whether replanting and natural recruitment have resulted in population numbers equal to or greater than those present before project implementation. If the population does not appear to have reestablished during the fifth year period, seed shall be collected from elsewhere and additional attempts shall be made to reestablish the population.

Mitigation 3.3.1.6: Minimize, avoid, and compensate for impacts to sensitive plants (cont)

- Lyngbye’s sedge: Seed shall be collected from Lyngbye’s sedge in the project area to be used for replanting in the event that natural recruitment does not result in a post-project population size equal to or greater than the pre-project population size. Monitoring and adaptive management will be conducted for a ten year period to determine whether the area and approximate number of Lyngbye’s sedge in the project area is similar to the area of sedge before the project. Additional planting efforts (from seed or from rootstock of mature plants) shall be undertaken if the population size is declining below pre-project size during the monitoring period.

- Eelgrass: The extent and density of eelgrass cover within areas of project impact shall be mapped prior to construction. Natural recruitment shall be monitored for 3 years to determine whether eelgrass is naturally recruiting in newly created channels adequately to replace the area of eelgrass lost due to project impacts. If eelgrass does not establish in an area equal to or greater than that lost due to project impacts in the first 3 years, eelgrass shall be actively planted using the most current scientific methods. If USFWS or DFG require propagation or transplantation, scientifically sound genetic management guidelines and protocols for rare plants shall be applied to propagation and transplant plans, possibly including the following:

- maintain some reserve clonal stock of perennial special-status plant populations during the monitoring period to offset the risk of failure in establishing populations in the wild,
- set aside surplus reserve seed of annual special-status plants from impacted populations
- conduct long-term monitoring to determine the fate of managed special-status plant populations. No special-status plant species shall be introduced to the site beyond their known historic geographic range unless such introduction is recommended in a final recovery plan or conservation plan prepared and adopted by the USFWS or the CDFG, in formal consultation with the USFWS.CBO

Mitigation 3.3.1.7: Minimize and avoid impact to nesting special status or migratory birds

- Construction activities would occur during the breeding and nesting season (March 1-June 15) only following pre-construction site-specific surveys by a qualified biologist. Nesting surveys shall be conducted no more than one week prior to the initiation of site preparation. If surveys identify active nests belonging to common migratory bird species, a 300-foot exclusion zone shall be established around each nest to minimize disturbance-related impacts on nesting birds. If surveys identify active nests belonging to special status birds, an interim no-activity zone of 300 feet shall be established around the nest. If surveys identify active nests belonging to raptors, an interim no-activity zone of 500 feet shall be established around the nest. The radius of the no-activity zone may be modified after consultation with DFG, and the duration of the exclusion shall be determined in consultation with DFG. In order to avoid take of willow flycatchers and western yellow-billed cuckoos during Project activities, in areas where the vegetation is dense and unsuitable to adequately survey, riparian vegetation removal will occur between August 15 and November 30 March 1 to avoid the nesting season for these species. For areas with less dense riparian vegetation that can be adequately surveyed, which will be determined in consultation with CDFG, riparian vegetation removal may occur between 1 July 1 August after surveys for nesting willow flycatchers and presence/absence surveys for other nesting birds are conducted by a qualified biologist prior to the start of vegetation removal. Surveys for willow flycatchers would occur in June and presence/absence surveys for other birds and would occur no more than one week prior to the initiation of site preparation. If active nests belonging to willow flycatchers or western yellow-billed cuckoos are detected during surveys, a 300-foot exclusion zone will be established around each nest in which no construction activities will occur until nesting is completed. The duration of the no-activity exclusion area(s) will be determined in consultation with CDFG.

- See Nesting Bird Avoidance Memo dated January 18, 2014 for updated requirements specific to Phase 2.

Mitigation Measure 3.3.1.12: Limit construction access routes and equipment staging areas and minimize excavation in existing aquatic habitat when eggs and tadpoles are expected to be present and conduct preconstruction surveys for RLF in all suitable habitat that would be disturbed by construction.

Construction access routes and equipment staging areas shall be limited within the study area to the extent feasible. Excavation in existing aquatic habitat shall only occur when egg masses and tadpoles are not expected (August 15 - October 31) for further protection of frogs. If disturbance in aquatic habitats is necessary prior to August 15, the area shall be cleared of any tadpoles relocated to suitable habitat.
Mitigation 3.4.1.1-2: Limit initial construction to an extended dry weather season (April – November)
Initial project construction activities involving earth moving on any of the sites in an area where material may enter or be transferred to a slough shall be limited to the April 1-November 30 dry season. This would reduce the amount of sediment and contaminants washed into the Salt River and Eel Estuary from the Salt River Ecosystem Restoration Project and related project site by rains. Maintenance activities involving earth moving on any of the sites in an area where material may enter or be transferred to a slough shall be limited to the April 15-November 1 dry season. This would reduce the amount of sediment and contaminants washed into the Salt River and Eel Estuary from Salt River Ecosystem Restoration Project maintenance activities.

Mitigation 3.4.1.1-3: Adhere to site-specific construction plans
Conduct construction work in accordance with site-specific construction plans that minimize the potential for increased delivery of sediment to surface waters.

Mitigation 3.4.1.1-5: Minimize removal of and damage to native vegetation
During excavation of the main channel, a significant amount of native vegetation must be removed. Where possible, the contractor will use heavy equipment to excavate plants and shrubs with root-wads, and replant these at areas designated by the re-vegetation plan. Native vegetation that is removed or damaged at access ways and within the construction areas shall be replaced under the re-vegetation plan at a 3:1 ratio.

Mitigation 3.4.1.1-6: Install temporary construction fencing to identify work areas
The project contractors shall install temporary construction fencing to identify areas that require clearing, grading, revegetation, or recontouring, and minimize the extent of areas of the site to be graded, recontoured, or otherwise disturbed.

Mitigation 3.4.1.1-7: Fish relocation
Before any potential de-watering activities begin in any of the project areas, the RCD shall ensure that native aquatic vertebrates and larger invertebrates are relocated out of the construction area into a flowing channel segment by a qualified fisheries biologist. In deeper or larger areas, water levels shall first be lowered to manageable levels using methods to ensure no impacts to fisheries and other special status aquatic species. A qualified fisheries biologist or aquatic ecologist shall then perform appropriate seining or other trapping procedures to a point at which the biologist is assured that almost all individuals within the construction area have been caught. These individuals shall be kept in buckets with aerators to ensure survival. They shall then be relocated to an appropriate flowing channel segment or other appropriate habitat identified by the RCD in consultation with the NMFS and the DFG. Construction activities shall be prohibited from unnecessarily disturbing aquatic habitat. Federally threatened or endangered aquatic species that occur within the project area either as resident or non-residents are Coho salmon, steelhead, Chinook salmon, green sturgeon, and tidewater goby. Introduced species, particularly Sacramento pikeminnow shall be documented and euthanized, as discussed under Mitigation 3.4.1-4, below. (prior to dewatering)

Mitigation 3.4.1.1-10: Tidewater Goby Measures
Specific measures designed to avoid or mitigate for impacts to tidewater goby include the following stepwise approach, described in detail in the Draft Biological Assessment for Tidewater Goby under preparation for submittal to the United States Fish and Wildlife Service for consultation. These measures are:

1. Prior to commencement of construction, tidewater goby surveys shall be conducted in May at all previously identified tidewater goby survey sites. Tissue samples will be collected for genetic analysis;

2. Construction plans shall ensure avoidance of disturbance to existing tidewater goby habitat at "Site #6" (see Biological Assessment) a possible relocation site for tidewater gobies found prior to dewatering of the Salt River channel;

3. Immediately prior to construction season, a tidewater goby survey shall be conducted in May at all sites and Connick to collect tissue samples for genetic analysis;

4. For any necessary relocation of tidewater goby, or other aquatic species, seining shall be conducted prior to dewatering of the Salt River channel;

5. Captured goby, or other listed species, shall be appropriately relocated as follows:
   a. Relocation of tidewater goby to Connick Ranch, providing genetic analysis so directs;
   b. Relocation of tidewater goby to "Site #6" (as identified in the Draft Biological Assessment) providing genetic analysis so directs and landowner permission is provided;
   c. Retention of existing Riverside Ranch habitat at two suitable sites (see Biological Assessment) and relocate tidewater goby to those sites

6. Most importantly, many acres of habitat suitable for tidewater goby shall be restored at Riverside Ranch as part of the project description;

Mitigation 3.4.1.2: Biological monitoring program and adaptive management
The RCD shall conduct reviews of the Riverside Ranch property on three occasions to determine the functionality of the newly constructed breach points and tidal habitat. These reviews shall take place at the time of breaching, three months following breaching, and one year following breaching. If at any time entrainment of fish is occurring, the RCD shall retain a hydrologist to review the performance of the project, and to recommend corrective measures. (At time of breaching 3 months following breaching, and 1 year following breaching)
Mitigation Measure 3.5.1.1-1: Utilize Best Management Practices to minimize fugitive dust generation and assure compliance with North Coast Air Quality Management District rules for particulates. In order to minimize the generation of fugitive dust, the following best management practices shall be implemented during project construction.

- All active construction areas shall be watered at a rate sufficient to keep soil moist and prevent formation of wind-borne dust.
- All unpaved access roads, parking areas, and construction staging areas shall be paved, watered daily, or treated with non-toxic soil stabilizers during construction.
- All paved access roads, parking areas, and construction staging areas shall be cleaned daily with water sweepers during construction.
- Hydroseeding or non-toxic soil stabilizers shall be applied to inactive construction areas (previously graded areas inactive for ten days or more).
- Exposed stockpiles of dirt, sand, and similar material shall be enclosed, covered, watered daily, or treated with non-toxic soil binders.

Mitigation Measure 3.5.1.1-1: Utilize Best Management Practices to minimize fugitive dust (cont)

- Traffic speeds on unpaved roads shall be limited to 10 miles per hour on untreated or dry surfaces. Travel at faster rates is permissible if roadway surfaces contain sufficient moisture so as to prevent the generation of visible airborne particulates.
- Sandbags, hay bales, or other erosion control measures shall be installed to prevent silt run-off to public roadways.
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- Outdoor dust-producing activities shall be suspended when high winds (>15 mph) create visible dust plumes in spite of control measures.
- Reasonable precautions shall be taken to prevent the entry of unauthorized vehicles onto the site during non-work hours.
- Construction activities associated with the Project shall comply with AQMD Rule 420 (Particulate Matter) and Rule 430 (Fugitive Dust Emissions), or succeeding AQMD rules that carry out the AQMD's management program for particulate matter. Many of the Best Management Practices listed above are also cited in Rule 430.

Mitigation Measure 3.5.1.2: Minimize construction machinery emissions

- Contractors shall be required to:
  1) Comply with the Title 13 CCR Chapter 10, Section 2485 Airborne Toxic Control Measure to Limit Diesel-Fuel Motor Vehicle idling, and
  2) Maintain and tune equipment in accordance with manufacturer’s recommendations so as to minimize the release of air pollutants.

- The North Coast Unified Air Quality Management District has submitted a letter of support pertaining to this measure.

Mitigation 3.6.1-1: Noise from earthmoving and hauling of soils

- a) Hours of construction for outdoor activities exceeding 50 dBA shall be limited to Monday through Friday 7:00 a.m. to 7:00 p.m. and weekends and holidays from 9:00 a.m. to 6:00 p.m. Saturday from 7:00 a.m. to 6:00 p.m. and Sundays and Holidays from 9:00 a.m. to 6:00 p.m. Movement and hauling of material, and associated activities such as re-fueling or maintenance, shall be limited to normal working hours for the area, as specified above. HCRCD provided "note to file" to amend working hours.

- b) All equipment shall operate with factory-equipped mufflers, and staging areas shall be located as far from residential uses as is practical. These conditions shall be incorporated into project contract specifications.

- c) To the degree feasible, haul trucks shall use haul routes along the existing channel excavation path, or along roadways distant from sensitive receptors. The contractor shall determine the feasibility of developing haul roads along the channel excavation path. Design considerations shall include a minimum of three separate work sites (to minimize travel on County roads). Haul road construction shall be designed to minimize impacts; haul road designs shall include, but not be limited to the placement of geotextile fabric under the haul road for facilitated re-erection and removal of bedding materials following project completion.

- d) A haul-truck route plan shall be developed. Hauling shall minimize passing any substantial collection of noise-sensitive land uses (i.e. occupied houses, schools, hospitals), and shall be limited to less than 200 loads per day on any given road.

- e) Larger capacity belly and end-dump trucks as well as double-trailers shall be utilized whenever feasible.
Mitigation Measure 3.11.1-1: Cease work and conduct assessment Inadvertent Discovery of Human Remains

If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, Section 7050.5). The Humboldt County coroner will be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.88. Work may resume if NAHC is unable to identify a descendant or the descendant failed to make a recommendation. The following text details procedures for treatment of an inadvertent discovery of Human Remains:

- Immediately following discovery of known or potential human remains all ground-disturbing activities at the point of discovery shall be halted.
- No material remains shall be removed from the discovery site, a reasonable exclusion zone shall be cordoned off.
- The Project Manager shall be notified and the Project Manager shall contact the county coroner.
- It is highly recommended the services of a professional archaeologist be retained to immediately examine the find and assist the process.
- All ground-disturbing construction activities in the discovery site exclusion area shall be suspended.
- The discovery site shall be secured to protect the remains from desecration or disturbance, with 24-hour surveillance, if prudent.
- Discovery of Native American remains is a very sensitive issue, and all project personnel shall hold any information about such a discovery in confidence and divulge it only on a need-to-know basis.

Mitigation Measure 3.11.1-1: Cease work and conduct assessment Inadvertent Discovery of Human Remains (cont)

- The Coroner has two working days to examine the remains after being notified. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Council (NAHC) in Sacramento (telephone (916) 653-4082). The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD) of the deceased Native American.
- Within 24 hours of their notification by the NAHC, the MLD shall be granted permission by the landowner’s authorized representative to inspect the discovery site, if they so choose.
- Within 24 hours of their notification by the NAHC, the MLD shall recommend to the landowner and Project Manager means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The Recommendation may include the scientific removal and nondestructive or destructive analysis of human remains and items associated with Native American burials.
- Whenever the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner or his/her authorized representative rejects the recommendation of the MLD and mediation between the parties by the NAHC fails to provide measures acceptable to the landowner, the landowner or his/her authorized representatives shall re-inter the human remains and associated grave offerings with appropriate dignity on the property in a location not subject to further subsurface disturbance.
- Following final treatment measures, the Project Manager or professional archaeologist shall ensure that a report is prepared that describes the circumstances, nature and location of the discovery, its treatment, including results of analysis (if permitted), and final disposition, including a confidential map showing the reburial location. Appended to the report shall be a formal record about the discovery site prepared to current California standards on DPR 523 form(s). Report copies will be distributed to the NCIC, NAHC and MLD.

Mitigation Measure 3.12.1-1: Traffic Control Plan

As part of the final construction documents, the contractor shall be required to submit a Traffic Control Plan corresponding to a Work Sequencing Schedule for review and approval by the construction manager prior to commencement of work. The Traffic Control Plan shall provide a narrative supported with figures depicting the haul routes anticipated to be utilized throughout the construction period and shall be developed in accordance with the California Manual on Uniform Traffic Control Devices (MUTCD) and applicable County of Humboldt encroachment permit conditions. The Traffic Control Plan shall detail the desired haul routes, public notification, required signage/flagging, potential lane/road closers, detour routes, provisions for providing temporary pedestrian access (if applicable) and provisions for maintaining access to all parcels. The use of Port Kenyon Road would be important for the transport of material and therefore the crossing replacement shall be scheduled for a time period when haul trucks would be using that portion of the road less frequently. The Traffic Control Plan shall be periodically updated throughout the course of the project. (Included in final construction documents)
Mitigation 3.14.1.2.1: Adapt and apply regional best management practices for managed marshes

BMPs are habitat-based strategies that can be implemented when needed for mosquito control in managed wetlands. These strategies represent a range of practices that wetland managers can incorporate into existing habitat management plans or in the design of new wetland restoration or enhancement projects. Ideally, BMPs can be used to decrease the production of mosquitoes and reduce the need for chemical treatment without significantly disrupting the ecological character, habitat function, or wildlife use in managed wetlands. Not all BMPs would be appropriate for a given wetland location or set of circumstances.

Timing of Managed Marsh Flooding and Drawdown (Nontidal Managed Open Water Options)

Timing of flooding and drawdown shall be coordinated with County Department of Public Health, adapted to current-year temperature, rainfall patterns, and mosquito vector risks, to minimize mosquito production and vector risks.

Rapid Flooding and Drawdown of Managed Marsh

Marshes shall be flooded and drawn down (emerged bed) as quickly as operational controls allow.

Water Control

Once wetlands have been flooded, water surface elevations shall minimally fluctuate prior to drawdown, except during winter periods of low mosquito production. Minimal fluctuation is based on the need to circulate water (maximize turnover). In managed wetland areas, marsh submergence depths shall be managed to maximize areas with minimal initial flooding depths of two feet.

Wetland Design Features to Reduce Mosquito Production

Managed wetland edges shall be constructed to enable efficient access by vector control field crews for monitoring and treatment. Edge slopes of managed nontidal marsh areas shall be steeper than 4:1 (horizontal to vertical). Open water areas with sufficient fetch and wind-wave turbulence to minimize mosquito production shall be interspersed within managed marsh, at least 20 percent of total area. Floating aquatic vegetation shall be actively suppressed in open water areas within managed marsh. (Design and Construction Phases, and Post-Construction)

1. All in-stream construction and maintenance activities, including channel excavation, will be conducted between 15 June and 15 October, with extension to 31 October, if rainless:

a) Prior to in-stream construction activities in 2012, temporary coffer dams (described above) will be placed upstream of the active work zone to control stream flow from the Salt River tributaries (including Coffee, Williams, Francis, Reas, and Smith creeks). A combination of pumped and/or gravity diversion pipes will be used to route flow around the active work areas. Fish screens (maximum 1/16-inch (in) opening mesh screen) will be installed immediately upstream from the coffer dams to prevent aquatic organisms, including tidewater gobies, from being exposed to pumps.

b) 1-2 days prior to installation of the coffer dams, and again after installation of coffer dams but prior to dewatering the channel, fish will be captured and removed by seining or dip netting (using the Service approved methods) in known tidewater goby habitats (Sites 2, 3, 5, and 6; see Figure 3) by biologists qualified to handle tidewater gobies under a scientific recovery permit pursuant to section 10(a)(1)(A) of the Act. Gobies from Sites 2 or 3 may be relocated (see measure "d" below).

c) Appropriate dewatering techniques will be employed to minimize the potential for fish entrainment. A maximum 1/16-in opening mesh screen will be used around pump inlets to prevent the potential entrainment of fish species during dewatering.

d) Qualified biologists will also be on location during dewatering to capture and relocate any stranded gobies (and other fish). Dewatering will concentrate gobies (and other fish) into smaller areas allowing for their capture and relocation. The qualified biologist will identify, record, and report to the Service all gobies captured and relocated, or the occurrence of any mortality. Where tidewater gobies may occur, capture methods will be limited to beach seines, dip nets, or minnow traps as per Appendix F, Recovery Plan for the Tidewater Goby (Service 2005). Tidewater gobies that are captured will be placed in a-gallon bucket, in water from the location captured, and relocated within 30 minutes of being captured. Specific sites for relocation were determined based on results of genetic analysis, landowner permission, and suitability of habitat, and were decided in coordination with the Service. Connick Ranch, where gobies have been detected (Figure 4) was determined to be a suitable relocation site for tidewater gobies from Riverside Ranch.

2. At Sites 2, 3, 5, and 6 on Riverside Ranch, where tidewater gobies were detected during surveys conducted by the Service on 4 May 2010 (Service 2010; Figure 3), conservation measures, that are intended to protect existing tidewater goby habitat, will be implemented through the following modifications and/or construction:

a) Sites 2 and 3: The culverts, tide gates, scour holes, downstream tidal channels and adjacent levees at these sites will not be permanently modified or disturbed during construction activities. However, these sites will be temporarily impacted during dewatering and excavation of the Salt River channel, which will temporarily eliminate tidal exchange via the small connector channels between the scour holes and mainstem Salt River.

b) Sites 5 and 6: Both sites are scour holes formed on the out-board side of culverts equipped with tide gates. These culverts drain winter flood waters out of the adjacent pastures to the mainstem Salt River. At both sites, the levees and culverts will either be retained, plugged and contained, or removed and the levee repaired with compatible fill material. The tidal channels and associated structures connecting these sites to the mainstem Salt River will not be disturbed or altered. A new 48-inch diameter culvert with tidegate will be installed through the new setback berms between the outboard drainage ditch and existing outboard tidal channel(s) connected to Salt River. It is unknown if the culverts at Sites 5 and 6 will continue to function similar to existing conditions after installation of the new culvert (i.e., seasonally draining lands to the north of winter storm waters and maintaining the existing scour holes); however, if tidewater goby habitat at Sites 5 and 6 is reduced or lost, it will be more than compensated for throughout the project site.

3. A qualified biologist will provide environmental awareness training to all construction personnel before construction begins. The training will include descriptions of sensitive species, and discussion of all required protection measures.

4. In accordance with Federal and State endangered species acts, all observations of sensitive species will be reported to the appropriate agency (the Service).

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5. A Stormwater Pollution Prevention Plan (SWPPP) has not yet been developed but will be prepared and implemented by the contractor to ensure that water quality in the Salt River and tributaries is not degraded during construction activities and until the disturbed areas are stabilized and erosion potential is minimized. The SWPPP will detail erosion and sediment Best Management Practices (BMPs) that will be implemented to prevent entry of storm water runoff into the excavation site, entrainment of excavated contaminated materials leaving the site, and entry of polluted storm water runoff into coastal waters during transportation and storage of excavated materials. BMPs that will be implemented as part of the SWPPP will include:

a) Cofferdams or other temporary fish barriers/water control structures will be placed in the channel during low tide, and will only be removed during low tide (if possible), after work is completed.

b) Because cofferdams will be installed and the channel will be dewatered prior to excavation, equipment will not be operated directly within tidal waters or stream channels of flowing streams, after fish passage efforts have been completed.

c) Silt fences and/or silt curtains will be deployed in the vicinity of the cofferdams and at excavation of sloughs at culvert installation and removal areas to prevent any sediment from flowing into the creek or wetted channels. If the silt fences are not adequately containing sediment, construction activity will cease until remedial measures are implemented that prevents sediment from entering the waters below.

d) Sediment sources will be controlled using fiber rolls, sediment basins, and/or check dams that will be installed prior to or during grading activities and removed once the site has stabilized.

e) Erosion control may include seeding (using natural material), mulching, erosion control blankets, plastic coverings, and geotextiles that will be implemented after completion of construction activities.

5 (cont).

f) Excess water will be pumped into the surrounding fields to prevent sediment laden water from entering the stream channel. When internal sloughs are connected to the mainstem Salt River, excavation will occur during a rising tide so that water flows into the marsh and sediment has a chance to settle out, allowing impacts of turbid water generated from excavations necessary for connection of the sloughs to the mainstem to be minimized by settlement and dilution.

(g) Appropriate energy dissipation devices will be utilized to reduce or prevent erosion at discharge end of dewatering activity.

(h) Turbidity and pH monitoring will be conducted in the Salt River throughout the site stabilization period to ensure that water quality is not being degraded as per the AMP. Turbid water will be contained and prevented from being transported in amounts that are deleterious to fish, or in amounts that could violate state pollution laws. Silt fences or water diversion structures will be used to contain sediment. If sediment is not being contained adequately, as determined by visual observation, the activity will cease. The Regional Water Quality Control Board (RWQCB) 401 water quality certification and the SWPPP will contain turbidity and pH thresholds for the construction period, which will require downstream monitoring.

(i) Exposed surfaces above high marsh, down to 7-8 ft elevation (NAVD88), will be mulched and seeded with appropriate native seed after the work has been completed.

(j) Construction materials, debris, and waste will not be placed or stored where it can enter into or be washed by rainfall into waters of the U.S./State.

(k) Upland areas will be used for equipment refueling. If equipment must be washed, washing will occur where wash water cannot flow into wetlands or waters of the U.S./State.

5 (cont).

l) Operators of heavy equipment, vehicles, and construction work will be instructed to avoid sensitive habitat areas. To ensure construction occurs in the designated areas and does not impact environmentally sensitive areas, the boundaries of the work area will be fenced or marked with flagging.

(m) Equipment when not in use will be stored outside of the slough channel and above high tide elevations.

(n) All construction equipment will be maintained to prevent leaks of fuels, lubricants or other fluids into the Salt River. Service and refueling procedures will not be conducted where there is potential for fuel spills to seep or wash into the slough.

(o) Extreme caution will be used when handling and/or storing chemicals and hazardous wastes (e.g., fuel and hydraulic fluid) near waterways, and any and all applicable laws and regulations will be followed. Appropriate containment and spill cleanup materials will be on site to prevent and manage spills.

(p) All trash and waste items generated by construction or crew activities will be properly contained and removed from the project area.

(q) After work is completed, project staff will ensure that the area is recontoured as per approved specifications. If necessary, restoration work (including revegetation and soil stabilization) will be performed in conformance with the Revegetation and SWPP plans.
6. An AMP has been prepared and will be implemented. It includes long-term monitoring of erosion, sediment control, water quality, habitat development, vegetation maintenance, and BMPs for management actions. Monitoring and management actions that affect tidewater gobies include:

a) Tidewater goby surveys will be conducted every year for 5 years on Riverside Ranch, using the protocol described in the Recovery Plan for the tidewater goby (Service 2005; Appendix J), and in habitats specifically created to support gobies. If gobies continue to be detected each year for 5 years, then monitoring will be discontinued at the end of that monitoring period. As described in the Service protocol, surveys will be conducted in two sampling periods between July 1 and October 31, as this period is the time of highest abundance for the species in general, and therefore, the period of highest chance of detection. The two sampling periods will be separated by at least 30 days to accommodate changes in water level, seasonal movements, or other factors that result in movement of gobies within the survey area. All surveys will be recorded and reported, including surveys that do not detect tidewater gobies, following the Service (2005) Recovery Plan survey protocol (Appendix J).

b) Following the Table 4 in the AMP, dissolved oxygen, temperature, and salinity will be monitored for a minimum of 5 years in the Salt River channel and Riverside Ranch to ensure that water quality is adequate to support tidewater gobies. If water quality is degraded and not adequate to support tidewater gobies, management actions (AMP Table 3) will be taken to improve water quality.

c) Tidal exchange will be monitored following Table 1 in the AMP for a minimum of 5 years in the Salt River channel/Riverside Ranch to determine if the project has established the desired tidal exchange, functional tidal prism, and salinity structure. Management actions will be taken if the desired tidal exchange is not achieved as described in the AMP.

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3. Construction Responsibilities & Standards
The authorized work shall comply with the following construction responsibilities and standards:

A) Prior to the commencement of any development authorized under this CDP, the permittee shall ensure that all on-site workers and contractors understand and agree to observe the standards for work outlined in this permit and in the detailed project description included as part of the application submittal and as revised by these conditions.

B) Prior to commencement of ground-disturbing activities associated with both Phase 1 and Phase 2 construction, appropriate erosion, sediment, and runoff control measures shall be deployed in accordance with the final Storm Water Pollution Prevention Plan approved pursuant to Special Condition No. 4, and all measures shall be properly maintained throughout the duration of construction activities.

C) Prior to the commencement of construction, the limits of the work areas and staging areas shall be delineated in cooperation with a qualified biologist, limiting the potential area affected by construction and ensuring that all agricultural lands, wetlands, and other environmentally sensitive habitats adjacent to construction areas are avoided during construction. All vehicles and equipment shall be restricted to pre-established work areas and haul routes and to established or designated staging areas.

D) During construction, all trash shall be properly contained, removed from the work site, and disposed of on a regular basis to avoid contamination of habitat during construction activities. Any debris inadvertently discharged into coastal waters shall be recovered immediately and disposed of consistent with the requirements of this coastal development permit.

E) All construction debris, including demolished fencing materials, gating, water lines, agricultural structures, and other related debris, shall be removed from the project site and disposed of in an upland location outside of the coastal zone or at an approved disposal facility pursuant to the final debris disposal plans approved pursuant to Special Condition No. 6.

F) Channels shall be dewatered prior to excavation under the supervision of a qualified aquatic biologist in accordance with the fish and aquatic resources protection measures required by Special Condition No. 7.

G) Prior to commencement of channel excavation, coffer dams or other temporary fish barriers shall be placed in the river channel during periods of low tide only. Dams and barriers shall be removed following completion of construction during periods of low tide.

H) The following seasonal restrictions shall apply to the authorized construction work:

1. Out-of-channel grading, excavation, and other earth-moving activities shall only be conducted during the dry season period of June 1 through October 15 except as provided below. If rainfall is forecast during the time construction activities are being performed, BMPs shall be implemented in conformance with the final SWPPP approved pursuant to Special Condition No. 4. Any grading excavation, and other earth-moving activities that cannot feasibly be conducted within the June 1 through October 15 time period may be conducted between April 15 and May 31 and/or between October 16 and November 30 subject to the following conditions:

a) All work shall cease upon the onset of precipitation at the project site and shall not recommence until the predicted chance of rain is less than 40 percent for the Ferndale area;

b) The work site(s) shall be winterized between work cessation periods by installing stormwater runoff and erosion control barriers around the perimeter of each construction site to prevent the entrainment of sediment into coastal waters;

c) Adequate stocks of stormwater runoff and erosion control barrier materials shall be kept onsite and made available for immediate use.

I) Excess excavated sediments not approved for reuse on site in accordance with the approved final construction plans shall be disposed of either off-site in a confirmed upland area outside of the coastal zone in conformance with the approved final disposal plans required by Special Condition No. 6 or placed in an upland area of an agricultural property in the coastal zone in conformance with an approved final sediment reuse plan approved pursuant to Special Condition No. 13.

J) Excess ground water shall not be pumped or discharged into wetland areas on surrounding fields outside of the project area footprint to prevent sediment-laden water from entering coastal waters or wetlands.
3. (K) In-stream erosion and turbidity control measures shall be implemented during channel dredging activities;  

CDP NOI Both

3. (L) Equipment staging and materials stockpiling areas shall be limited to the locations and sizes specified in the approved final plans. Construction vehicles shall be restricted to designated haul routes. Construction equipment and materials shall be stored only in designated staging and stockpiling areas as depicted on the final plans approved pursuant to Special Condition No. 5;  

CDP NOI Both

3. (M) Any fueling and maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or within designated staging areas. Mechanized heavy equipment and other vehicles used during the construction process shall not be refueled or washed within 100 feet of coastal waters;  

CDP NOI Both

3. (N) Fuels, lubricants, and solvents shall not be allowed to enter the coastal waters or wetlands. Hazardous materials management equipment including oil containment booms and absorbent pads shall be available immediately on hand at the project site, and a registered first-response, professional hazardous materials clean-up/remediation service shall be locally available on call. Any accidental spill shall be rapidly contained and cleaned up;  

CDP NOI Both

3. (O) Upon completion of construction activities and prior to the onset of the rainy season, all bare soil areas shall be seeded in compliance with Special Condition No. 12 and mulched with weed-free rice straw. 

CDP NOI Both

4. Final Storm Water Pollution Prevention Plan  
A PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, the applicant shall submit, for the review and approval of the Executive Director, a final Storm Water Pollution Prevention Plan (SWPPP) for Phase 1 construction activities. PRIOR TO COMMENCEMENT OF PHASE TWO (2) DEVELOPMENT, the applicant shall submit, for the review and approval of the Executive Director, a final SWPPP for Phase 2 construction activities. The final SWPPPs shall include provisions for all of the following:  

1. Runoff from the project site shall not increase sedimentation in coastal waters or wetlands post-construction. During construction runoff from the project site shall not increase sedimentation in coastal waters beyond what’s allowable under the final Water Quality Certification approved for the project by the North Coast Regional Water Quality Control Board;  

2. Runoff from the project site shall not result in other pollutants entering coastal waters or wetlands during construction or post-construction;  

CDP NOI Both

3. Best Management Practices (BMPs) shall be used to prevent the entry of polluted stormwater runoff into coastal waters and wetlands during construction and post-construction, including use of relevant BMPs as detailed in the current California Storm Water Quality Best Management Handbooks (http://www.cabmphandbooks.com);  

4. An on-site spill prevention and control response program, consisting of best management practices (BMPs) for the storage of clean-up materials, training, designation of responsible individuals, and reporting protocols to the appropriate public and emergency services agencies in the event of a spill, shall be implemented at the project to capture and clean-up any accidental releases of oil, grease, fuels, lubricants, or other hazardous materials from entering coastal waters or wetlands;  

5. A schedule for installation and maintenance of appropriate construction source-control BMPs to prevent entry of stormwater runoff into the construction site and the entrainment of excavated materials into runoff leaving the construction site; and  

6. The SWPPPs shall be consistent with the provisions of all other terms and conditions of Coastal Development Permit No. 1-10-032. 

4. Final Storm Water Pollution Prevention Plan (cont)  
B) PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, the applicant shall submit, for the review and approval of the Executive Director, final plans for Phase One (1) construction that substantially conform with the Phase 1 construction 75 percent plans prepared by Kamman Hydrology & Engineering, Inc. dated May 2011 and which are consistent with all Special Conditions of Coastal Development Permit No. 1-10-032;  

CDP NOI Both

5. Final Construction Plans  
A) PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, the applicant shall submit, for the review and approval of the Executive Director, final plans for Phase One (1) construction that substantially conform with the Phase 1 construction 50 percent plans prepared by Winzler & Kelly and Michael Love & Associates dated May 2011 and which are consistent with all Special Conditions of Coastal Development Permit No. 1-10-032; and  

5. Final Construction Plans (cont)  
B) PRIOR TO COMMENCEMENT OF PHASE TWO (2) DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, the applicant shall submit, for the review and approval of the Executive Director, both of the following:  

1. Final plans for Phase Two (2) construction that substantially conform with the Phase 2 construction 50 percent plans prepared by Winzler & Kelly and Michael Love & Associates dated May 2011 and which are consistent with all Special Conditions of Coastal Development Permit No. 1-10-032; and  

2. Final project plans for the construction of the Francis Creek culvert replacement at Port Kenyon Road that substantially conform with the preliminary plans prepared by Humboldt County dated January 7, 2011.  

CDP NOI Both

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

CDP NOI Both

22. Protection of Archaeological Resources  
A) PRIOR TO COMMENCEMENT OF PHASE 2 DEVELOPMENT, the additional pre-project survey recommended by the archaeological report in the location between Port Kenyon and the Salt River be conducted and a qualified cultural resource specialist analyze the significance of any resources discovered. If an area of historic or prehistoric cultural resources or human remains are discovered during the course of the project or pre-construction testing, all construction within twenty (20) meters of the discovery shall cease and shall not recommence except as provided in subsection (B) hereof; and a qualified cultural resources specialist shall analyze the significance of the find.  

CDP NOI Both
21. Protection of Archaeological Resources (cont)
(B) A permittee seeking to recommence construction following discovery of the cultural deposits shall submit an archaeological plan for the review and approval of the Executive Director.

1. If the Executive Director approves the Archaeological Plan and determines that the Archaeological Plan’s recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after this determination is made by the Executive Director.

2. If the Executive Director approves the Archaeological Plan but determines that the changes therein are not de minimis, construction may not recommence until after an amendment to this permit is approved by the Commission.

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

(A) No State or public trust lands are involved in the development; or

(B) No State or public trust lands are involved in the development and all permits required by the State Lands Commission have been obtained; or

(C) State or public trust lands may be involved in the development, but pending a final determination an agreement has been made with the State Lands Commission for the approved project as conditioned by the Commission to proceed without prejudice to that determination.

24. Department of Fish & Game Consistency Determination
PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide, for the review and written approval of the Executive Director, a copy of a Consistency Determination (CD) and/or Incidental Take Permit issued by the Department of Fish and Game pursuant to the California Endangered Species Act, or evidence that no CD or ITF is required. The applicant shall inform the Executive Director of any changes to the project required by the Department. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

25. Department of Fish & Game SAA Approval
PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide, for the review and written approval of the Executive Director, a copy of a Streambed Alteration Agreement (SAA) issued by the Department of Fish and Game, or evidence that no SAA is required. The applicant shall inform the Executive Director of any changes to the project required by the Department. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

26. Regional Water Quality Control Board Approval
PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide, for the review and written approval of the Executive Director, a copy of a Streambed Alteration Agreement (SAA) issued by the Department of Fish and Game, or evidence that no SAA is required. The applicant shall inform the Executive Director of any changes to the project required by the Board. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

27. U.S. Army Corps of Engineers Approval
PRIOR TO COMMENCEMENT OF PHASE ONE (1) CONSTRUCTION, the permittee shall provide to the Executive Director a copy of a permit or permit amendment issued by the Army Corps of Engineers, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the Army Corps of Engineers. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

28. Submittal of Final Federal Biological Opinions
PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit evidence, for the review and written approval of the Executive Director, that the National Marine Fisheries Service (NOAA-Fisheries) and the U.S. Fish and Wildlife Service have issued final Biological Opinions, and, if necessary, Incidental Take Permits, in support of the permit authorized by this permit and that are consistent with all terms and conditions of this permit. The applicant shall inform the Executive Director of any changes to the project required by the federal agencies. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

29. Caltrans Encroachment Permit
PRIOR TO COMMENCEMENT OF PHASE TWO (2) CONSTRUCTION, the applicant shall provide to the Executive Director a copy of an encroachment permit issued by Caltrans for project activities located around Highway 211, or evidence that no permit is required. The applicant shall inform the Executive Director of any changes to the project required by Caltrans. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

30. Humboldt County Encroachment Permit
PRIOR TO COMMENCEMENT OF PHASE ONE (1) CONSTRUCTION, the applicant shall submit for the review and approval of the Executive Director a copy of an encroachment permit issued by Humboldt County, or evidence that no permit is required. The applicant shall inform the Executive Director of any changes to the project required by the County. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.

1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to Construction Management Staff working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.

1.3 Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.
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| 130 | 1.4 Project Site Entry. Permittee agrees that DFG personnel may enter the project site with 48 hours notice to verify compliance with the Agreement.  
1.5 DFG Notification of Work Initiation and Completion. The Permittee shall contact DFG within the 7-day period preceding the beginning of work permitted by this Agreement. Information to be disclosed shall include Agreement number, and the anticipated start date. The Permittee shall contact DFG within thirty days of completion of the work permitted by this Agreement. Information to be disclosed shall include Agreement number.  
2.1 Except where otherwise stipulated in this Agreement, all work shall be in accordance with the work plan submitted with Notification No. 1600-2011-0107-R1, as of May 5, 2011, and the final DFG approved Adaptive Management Plan.  
2.2 PROJECT CONDITIONS for TIME RESTRICTIONS on CONSTRUCTION and ADAPTIVE MANAGEMENT ACTIVITIES  
2.2.1 Work in the Stream Channel and Sediment Management Areas  
Work in the stream channel above tidal influence on the Salt River and adjacent sediment management areas, shall be confined to the period June 15 to October 15, and July 1 to October 15 for the Riverside Ranch project area, unless written authorization from DFG is received to extend the work period. Seasonal reclamation activities shall be completed prior to October 15 unless an extension of the work period is obtained in writing from DFG. Sediment management sites shall be left in a reclaimed condition at the end of each work day for extended work period operations occurring after October 15. A reclaimed condition shall be achieved by activities that include but are not limited to, removal of sediment stockpiles, the filling of depressions that may trap fish and the reshaping of bars to meet the prescribed post-extraction slopes.  
2.2.2 Riparian Vegetation Restoration Activities  
Riparian restoration activities shall take place between November 1 and May 1 in any given year.  
2.2.3 Riparian Vegetation Management Activities  
Work in riparian areas, including the trimming and/or removal of existing dense and unfeasible to survey stands of vegetation, shall be confined to the period August 15 to March 1. In areas with less dense riparian vegetation that can be adequately surveyed by a qualified biologist for nesting willow flycatcher and other nesting birds, which will be determined in consultation with DFG personnel, riparian vegetation removal may occur between March 1 to August 15.  
2.3 PROJECT CONDITIONS for VARIANCES from CORE OPERATING TIME PERIODS  
2.3.1 Extension of the Work Period  
If weather conditions permit, and the Permittee wishes to extend work after October 15, a written request shall be made to DFG at least 5 working days before the proposed work period variance. Written approval (letter, e-mail, or fax) for the proposed time extension must be received from DFG before work begins.  
2.3.2 Annual Reclamation Period  
Between October 1 and October 15, sediment management area reclamation shall occur. Reclamation activities include, but are not limited to, removing sediment stockpiles from below top of bank areas, filling in low areas and depressions that may trap fish, and reshaping bars to meet the prescribed post extraction slopes. The Permittee may request, in writing, an extension from DFG to continue to remove sediment after October 1 as long as the removal area is left in a reclaimed condition at the end of each work day.  
2.4 FLOODPLAIN RESTORATION ACTIVITIES  
Floodplain Restoration Plans  
Construction work (except for vegetation removal) shall not commence for any given phase (Phase 1 and 2) until 100% engineered design plans for that respective phase have been completed and sent to DFG for review and approval. Design plans shall include the construction of a low flow channel within the proposed wetted channel boundaries. DFG will review, comment, and approve of 100% design plans within 30 days of receipt.  
2.5 RIPARIAN RESTORATION/ENHANCEMENT  
2.5.1 Riparian Restoration  
At least 82 acres of riparian restoration and/or enhancement shall be implemented within the Salt River Ecosystem Restoration Enhancement Project. Plant species to be planted shall be representative of riparian areas within the lower Eel River Watershed. Redwood trees shall not be planted in the project area. DFG shall review and approve of proposed plant species to be utilized prior to the implementation of riparian restoration activities. Planted trees shall be monitored post-project for a minimum of five years to ensure rooting and long term success per the Habitat Mitigation and Monitoring Plan. Dead and/or dying trees shall be replaced.  
2.5.2 Active Bench and Erosion Control Seeding  
Active bench seed mix shall not contain slender wheatgrass (Elymus trachycaulus). Leymus vancouverensis shall be substituted for wheatgrass. The species of sedge to be utilized in the seed mix shall be approved by DFG prior to use. The erosion control seed mix shall be approved by DFG prior to use. This seed mix shall include the scientific and common names of all plants to be used for vegetation restoration.  
2.5.3 Cattle exclusion fencing  
All cattle exclusion/riparian buffer fencing shall be located at the top of the restored Salt River bankfull active channel or greater.  
2.5.4 Water Custom Design  
DFG will review a water custom design at each phase of the project. DFG will provide written comments within 30 days of receipt.  
2.5.5 Riparian Vegetation Monitoring  
Riparian vegetation shall be sampled at each phase of the project. DFG will review the vegetation data at each phase of the project. DFG will provide written comments within 30 days of receipt.
2.6 FISH REMOVAL ACTIVITIES
Prior to dewatering a construction site or conducting any other instream work on Phase 1 and 2 of the project, fish and amphibian species shall be captured and relocated by DFG personnel (or designated agents). Prior to conducting maintenance activities that will require fish capture and relocation, an incidental Take Permit (ITP) shall be obtained by the Permittee. No ITP or Consistency Determination shall be necessary if DFG conducts fish removal prior to maintenance operations. The following measures shall be taken to minimize harm and mortality to listed salmonids resulting from fish relocation and dewatering activities:

a) Fish relocation and dewatering activities shall only occur between June 15 and October 15 of each year.

b) Fish relocation shall be performed by a qualified fisheries biologist, with all necessary State and Federal permits. Rescued fish shall be moved to the nearest appropriate site outside of the work area. A record shall be maintained of all fish rescued and moved. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the project site, and the number and species of fish captured and relocated. The record shall be provided to DFG within two weeks of the completion of the work season or project, whichever comes first.

c) Electrofishing shall be conducted by properly trained personnel following NOAA Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act, June 2000.

d) Block nets or other impassable barriers shall be installed at the upstream and downstream ends of the project areas to prevent fish from re-entering the work site.

e) Prior to capturing fish, the most appropriate release location(s) shall be determined. The following shall be determined:

(i) Temperature: Water temperature shall be similar as the capture location.

(ii) Habitat: There shall be ample habitat for the captured fish.

(iii) Exclusions from work site: There shall be a low likelihood for the fish to reenter the work site or become impinged on exclusion net or screen.

2.6 FISH REMOVAL ACTIVITIES (cont)

f) The most efficient method for capturing fish shall be determined by the biologist. Complex stream habitat generally requires the use of electrofishing equipment, whereas in outlet pools, fish may be concentrated by pumping down the pool and then seining or dipnetting fish.

g) Handling of salmonids shall be minimized. However, when handling is necessary, always wet hands or nets prior to touching fish.

h) Temporarily hold fish in cool, shaded, aerated water in a container with a lid. Provide aeration with a battery-powered external bubbler. Protect fish from jostling and noise and do not remove fish from this container until time of release.

i) Air and water temperatures shall be measured periodically. A thermometer shall be placed in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature. If water temperature reaches or exceeds 18 °C, fish shall be released and rescue operations ceased.

j) Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year (YOY) fish from larger age-classes to avoid predation. Larger amphibians, such as Pacific giant salamanders, shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.

k) Species and year-class of fish shall be visually estimated at time of release. The number of fish captured shall be counted and recorded. Anesthetization or measuring fish shall be avoided.

2.6 FISH REMOVAL ACTIVITIES (cont)

l) If feasible, initial fish relocation efforts shall be performed several days prior to the start of construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional electrofishing passes immediately prior to construction. In many instances, additional fish will be captured that eluded the previous day's efforts.

m) If mortality during relocation exceeds fifty percent, capturing efforts shall be stopped and the appropriate agencies shall be contacted immediately.

n) All Sacramento pikeminnow and American bullfrogs captured during fish relocation activities shall be removed and euthanized.

o) The responsible party shall minimize the amount of wetted stream channel that is dewatered at each individual project site to the fullest extent possible.

p) Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the California Salmonid Stream Habitat Restoration Manual.
2.7 WATER DIVERSIONS
   Where flowing water is present during operations:
   a) Cofferdams shall be installed to divert stream flow and isolate and dewater the work site, and to catch any sediment-laden water and minimize sediment transport downstream. Cofferdams shall be constructed of non-polluting materials including sand bags, water bags, concrete, ecology blocks, rock, native soil with appropriate erosion/sediment control measures and/or plastic tarps.
   b) Dewatering shall be coordinated with a qualified fisheries biologist to perform fish and amphibian relocation activities.
   c) Flowing water shall be completely bypassed and/or prevented from entering the work area through pumping or gravity flow, and clearly returned to the stream below the work area. Stream flow below the work area shall be maintained similar to the unimpeded flow at all times. Flow diversions shall be done in a manner that prevent pollution and/or siltation and provides flows to downstream reaches.
   d) The suction end of the diversion intake pipe shall be fitted with fish screens meeting DFG and NOAA criteria to prevent entrainment or impingement of small fish. Screens shall be regularly checked and cleaned of debris to permit free flow of water.
   e) The Permittee shall remove any turbid water and sediment present in the work area prior to restoring water flow through the project site, and in accordance with the 401 Water Quality Certification.

2.8 SUBMITTAL of a DFG APPROVED ANNUAL ADAPTIVE MANAGEMENT PLAN

   Before starting adaptive management activities any year covered by this Agreement, the Permittee shall provide DFG an Annual Adaptive Management Plan that specifies all activities and areas that may be part of the yearly management plan. This plan shall be approved by DFG in writing prior to the onset of management activities. The plan shall include a description of the procedure used for determining the upcoming season’s sediment removal volume estimates. The Permittee or his appropriately licensed agent shall confirm that such an estimate is accurate to the best of their ability.

   2.8.1 Content of the Annual Adaptive Management Plan

   Planning for the upcoming management season begins in spring. In the late spring, when the stream level drops to a point where sediment deposits become exposed, the Permittee and DFG shall conduct a site review of the management area to evaluate potential actions. During the site review, potential management sites shall be identified on a recent aerial photograph.

   Following the site review, the Permittee shall survey the proposed management areas and develop the annual management plan from the topographic data, site review field notes and graphic information. The management plan designs, consisting of surveyed cross-sections of the proposed sediment management areas(s), surveyed monitoring cross-sections, management narrative, management plan photographs and sediment volume calculations are submitted to DFG for review and approval as early in the season as possible. The Permittee shall incorporate DFG recommendations and conditions into the final annual management plan. Management activities may commence upon written approval (letter, e-mail, or fax) from DFG. The Annual Adaptive Management Plan shall include the following:

2.8 SUBMITTAL of a DFG APPROVED ANNUAL ADAPTIVE MANAGEMENT PLAN (cont)

1. The name, address, and telephone number of the Permittee.
2. The location of proposed management activities, their sections, township, range, latitude, longitude, and boundaries marked on a U. S. Geological Survey 7 1/2’ - minute quadrangle map.
3. The type of sediment management activity (sediment management area skimming, in channel excavation, etc.) that will be used. A copy of any biological or hydrological reviews needed for approval of management activities. Any other documentation as needed to describe the proposed operations of the submitted proposal.
4. Anticipated beginning and ending dates of the proposed work period.
5. Ownership of the property, including government agencies, if applicable, by the assessor’s parcel number.
6. A production data report that includes a quantifiable procedure approved by DFG for determining the upcoming season’s sediment removal volume estimates.
7. An estimate of sediment deposition volume or bed degradation in cubic yards from the previous years’ sediment extraction determined by comparison of post-extraction cross sections from the last extraction with current pre-extraction cross sections.
### 2.8 SUBMITTAL of a DFG APPROVED ANNUAL ADAPTIVE MANAGEMENT PLAN (cont)

8. Any gross channel change from the preceding year.

9. Aerial Photograph: Scaled aero photographs containing the information detailed below (more than one photograph may be used of the same area if needed to include all the information):
   a. Delineation of all sediment removal and vegetation management work areas with the exact location and limits of proposed actions.
   b. Monitoring and sediment removal area survey cross sections.
   c. Existing and proposed access and/or haul road locations.
   d. The location of equipment storage and stockpile areas.
   e. The location of riparian vegetation proposed for removal or transplant.
   f. Temporary stockpile areas.
   g. Mitigation areas; defined as areas that were replanted/restored to replace riparian vegetation removal areas.
   h. A legend including the date of the photograph, stream flow and stage, name of operation and stream, scale, north arrow and preparer’s name.

#### 2.8.2 Willow Flycatcher Surveys

A qualified wildlife biologist shall evaluate and document in a report prepared for DFG’s review and concurrence the extent of suitable willow flycatcher habitat in and within 300 feet of the project area where construction activities are proposed to occur before August 15. Where such activities are proposed, a survey of suitable habitat shall be conducted by a qualified wildlife biologist to determine if the project area or adjacent habitat is occupied by willow flycatcher. The survey shall follow guidelines found in A willow flycatcher survey protocol for California (Bombay, et al. 2003), which can be obtained at the attached link: [http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html](http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html).

DFG shall receive a report summarizing survey effort results at least one week before construction activities are to take place. If willow flycatchers are observed, the qualified wildlife biologist shall design appropriate buffer widths and operational restrictions and forward the operational report to DFG for review and approval. Construction activities shall not commence until DFG has approved the operational report. DFG shall strive to make the determination within 96 hours of receiving the survey report.

### 2.9 Delineation of the Work Area

The proposed areas described in the Annual Adaptive Management Plan shall be identified and detailed on the project maps and air photographs as specified in Section 2.7.1. These areas shall be determined in consultation with DFG.

Note: See Section 2.20 for details on cross section survey protocols, and the numbers and locations of cross sections.

### 2.10 Annual Post-Adaptive Management Survey Cross Sections

Post adaptive management (fall) cross sections need only be resurveyed through the portion of the transect altered by sediment removal or temporary stockpiles. Annual post adaptive management cross sections shall overlay the annual adaptive management control sections.

Note: Details on the types and number of survey cross sections required are outlined in Section 2.20.

### 2.11 PROJECT CONDITIONS for DELINATION OF SEDIMENT REMOVAL AREAS

#### 2.11.1 Low flow Delineation of the Sediment Removal Area in the Field

The minimum skiim floor elevation in sediment management areas shall be the original design grade.

### 2.11.2 Limitations on the Longitudinal and Cross-Sectional Slopes of Post-Extraction Sediment Management Areas

Post-extraction cross bar surfaces shall be left in a free draining condition, maintaining either a downstream slope, cross slope, or compound slope complimentary to the wetted or secondary channel.

### 2.12 PROJECT CONDITIONS for POST-ADAPTIVE MANAGEMENT REPORT REQUIREMENTS

#### 2.12.1 Annual Post-Management Procedures

When the Permittee has completed annual management activities, DFG shall be notified and a final site review shall be scheduled. The purpose of the final review is to assess the site for additional end-of-season reclamation and, if necessary, recommend grading to ensure site drainage compliance with the approved annual management plan.
### 2.12 PROJECT CONDITIONS for POST-ADAPTIVE MANAGEMENT REPORT REQUIREMENTS

#### 2.12.2 Annual Post-Management Reporting Requirements

Post-management surveys of the site shall be conducted following sediment removal to generate comparative sets of monitoring and sediment removal cross-sections depicting pre- and post-extraction topography and degree of management plan compliance. The comparative cross-sections are utilized for the identification and minimization of short-term effects caused by sediment removal processes. The cross-sections are also utilized to calculate extracted sediment.

1. During the months of August through October, after management and reclamation are completed, commercially available satellite imagery of the work area shall be provided to DFG. This image shall capture the stream channel at its lowest flow and provides an aerial view of management activities. The late-season imagery shall be equal to or greater than the coverage provided by spring imagery.

2. Post-management cross-section data and biological monitoring information shall be submitted to DFG by January 15 of each year. The Post-Management Report shall include:
   a. Post-management documentation, depicting original ground, proposed management activities (including sediment removal, vegetation management, and other activities) and actual conditions. Include proposed and extracted volumes of sediment.
   b. Post-management narrative describing level of Permittee annual management plan conformance, sediment removal design criteria, extraction processes and volumes, stream trends and conditions based upon comparison with the preceding management reports and data.
   c. Hard copy of fall satellite imagery of the site at a scale of approximately 1:12,000.

#### 2.13 PROJECT CONDITIONS to PROTECT WATER QUALITY

##### 2.13.1 Emergency Spill Response Plan

An emergency response plan shall be prepared and submitted to DFG for review and approval prior to the start of construction or sediment removal activities. The plan shall identify the materials to be used and the actions that will be taken in the event of spill of petroleum products, fine sediment or any other material harmful to aquatic or plant life. The emergency response materials shall be kept at the site to allow the rapid containment and clean-up of any spilled material.

##### 2.13.2 Emergency Spill Response

Emergency clean up of all spills shall be done immediately. During or soon after the initial clean up is possible, the Permittee will notify DFG that a spill has occurred, and will consult with DFG regarding final clean-up procedures.

##### 2.13.3 Location of Sediment Processing Activities

Staging and Storage of Materials in the Stream Channel

All staging/storage areas for mobile equipment, fuels, lubricants and solvents shall be located above and outside of the stream’s low flow channel. Stationary equipment such as motors, pumps, generators, compressors, and welders, located within a dry portion of the stream channel or adjacent to the stream channel shall be positioned over drip pans.

#### 2.13.4 Sediment Stockpiles

Sediment may be temporarily stockpiled in the Salt River corridor during extraction. Stockpiles shall be managed to minimize water and wind erosion. After October 1, temporary sediment stockpiles must be removed by the end of each workday. All sediment stockpiles in the Salt River corridor must be permanently removed by October 15, except for permanent sediment reuse (disposal) areas in agricultural uplands.

Permanent Sediment Disposal Sites

Excavated sediment shall be windrowed and/or spread on permanent disposal sites in accordance to the Sediment Reuse Plans developed for each parcel. Sediment disposal shall be located at least 150 feet from the top of bank (break in slope) along the Salt River, Eel River, and their tributaries. For the purposes of this Agreement, the top of bank is described as the topographic slope feature which confines most ordinary high flow events. Disposal boundaries shall be delineated by staking to prevent encroachment into buffer areas. Sediment shall not be placed on or within existing riparian vegetation.

##### 2.13.4.1 Construction Debris

The Permittee shall not store or dispose of any litter or construction debris within the active stream channel. All debris and associated materials shall be removed from the work site upon completion of this project. After the final inspection, materials (stakes, flagging) used to delineate the low-flow channel and the horizontal extent of the extraction boundary shall be removed from the active channel.

##### 2.13.4.2 Use of Fill Materials

Clean Gravel and Woody Debris

No fill material, other than clean river gravel except as covered in this Agreement and DFG approved additions of large wood debris, shall be allowed to enter the live stream.
### 2.13 PROJECT CONDITIONS to PROTECT WATER QUALITY

#### 2.13.5 Project Conditions for Vehicle and Equipment Use

**Maintenance Activities**
- Any vehicles or equipment driven and/or operated adjacent to the stream shall be checked and maintained daily to prevent leaks of materials that could be introduced into the stream, banks or floodplain.

**Location of Maintenance Activities**
- All mobile equipment maintenance, lubrication and refueling shall be done outside of the stream channel.

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#### 2.13.6 Performance Standards for Protection of Water Quality

**Protection of the Beneficial Uses of Water**
- Sediment extraction activities shall be conducted to protect on-site and downstream beneficial uses of surface water in accordance with the Porter-Cologne Water Quality Control Act, Water Code Section 13000, et seq., and the Federal Clean Water Act, 33U. S. C. section 1251 et seq.

**Protection of Groundwater**
- The quality of water, recharge potential, and storage capacity of groundwater aquifers that are the source of water for domestic, agricultural, or other uses dependent on the water, shall not be diminished.

**Protection of Streams from Siltation**
- To minimize siltation of streams, erosion and sedimentation shall be controlled during all phases of the sediment removal activities, including reclamation and closure.

**Protection of Natural Drainages**
- No natural drainages shall be covered, restricted, rerouted or otherwise impacted by sediment removal activities without prior approval of DFG.

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### 2.14 PROJECT CONDITIONS for the PROTECTION of RIPARIAN VEGETATION

#### 2.14.1 Limitations on the Removal of Riparian Vegetation

**Removal of Vegetation and Overburden**
- Trees within established riparian areas shall not be removed or disturbed, unless necessary for monitoring and maintenance purposes in accordance with the DFG approved Adaptive Management Plan.

**Limitations on the Removal of Riparian Vegetation on Stream Banks**
- No planted riparian vegetation shall be removed from the bank of the stream, unless necessary for monitoring and maintenance purposes in accordance with the Adaptive Management Plan, and authorized by DFG.

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#### 2.14.2 Protected Trees

**Protection of Trees of a Specified Size**
- Trees that exceed six inches diameter at breast height (DBH) within sediment management areas or along the wetted channel shall not be removed or damaged unless necessary for monitoring and maintenance purposes in accordance to the Adaptive Management Plan, and with prior approval of DFG.

**Limitations on Sediment Removal Activities near Protected Trees, Groups of Trees or Other Native Riparian Vegetation**
- A buffer zone from which no sediment may be extracted shall be established around protected trees and groups of trees. The buffer zone shall be delineated with flagging or staking prior to sediment removal, and have a minimum horizontal width of 5 feet measured outward from vegetation (trees) exceeding 6-inches DBH. A minimum of a 3:1 slope shall be maintained around the outward edge of this buffer zone.

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#### 2.14.3 Setbacks from Stream Bank Riparian Vegetation

**Minimum Horizontal Setback from Vegetation**
- A horizontal setback of a minimum of 5 feet measured outward from the drip line of any riparian vegetation present shall be maintained between sediment removal activities (excluding stream channel sediment removal) and the outermost bank of the stream and its associated riparian habitat.

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#### 2.14.4 Exotic Vegetation and Noxious Weeds

**Management of Exotic Vegetation and Noxious Weeds**
- Invasive vegetation and noxious weeds shall be managed to prevent spreading to new areas.

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2.14 PROJECT CONDITIONS for the PROTECTION of RIPARIAN VEGETATION

2.14.5 Maintenance of Large Woody Debris (LWD)

Maintenance of Instream Roughness Elements
Removal or disturbance of instream roughness elements (LWD, boulders, etc.) outside sediment removal areas shall be avoided.

Large Downed Trees and LWD
Trees or LWD within the stream channel or on the lower banks of the stream shall only be removed with the prior approval of DFG.

Replacement of LWD
LWD or trees that have been approved for removal by DFG shall be temporarily stockpiled. After completion of operations, the LWD shall be re-distributed at the direction of DFG.

Addition of LWD or Other Channel Roughness Elements
With prior approval of DFG, the addition of up to fifteen LWD or other roughness elements may be installed in the stream channel per year to improve habitat. Design and installation methods shall follow guidelines found in the California Salmonid Stream Habitat Restoration Manual.

2.14.6 Revegetation Plan for Post-Construction Vegetation Removal as Part of the Adaptive Management Plan

Submission of a DFG-Approved Revegetation Plan
If removal of trees over six inches DBH is part of the annual adaptive management plan, or riparian restoration efforts are not achieving desired success criteria, a revegetation plan shall be prepared by a qualified botanist/plant ecologist with expertise in northern California ecosystems and native plant revegetation techniques. Currently available research addressing revegetation methods and the selection of species having good survival characteristics for the topography and climate of the mined area shall be used. This plan shall be submitted to DFG for review and approval prior to commencement of vegetation removal activities.

Contents of the Revegetation Plan
The plan shall include the following elements:
1. Identification and quantities and types of the native and non-native plant communities that will be impacted by management activities.
2. Utilization of a native plant pallet of species currently or historically present in the work area and approved by DFG. Seeds, cuttings and divisions of locally-collected native plants are recommended.
3. Planting design specifications and schedule, maintenance plan, erosion control and irrigation plans as necessary. Planting shall be conducted during the most favorable period of the year for plant establishment. Approval in writing of the revegetation plan by DFG shall provide permission for the applicant to conduct the replanting activities specified within the revegetation plan.

2.14.6 Revegetation Plan for Post-Construction Vegetation Removal as Part of the Adaptive Management Plan (cont)

4. Designated photo points shall be established for monitoring planting success following guidelines from the current literature on the topic of photo point monitoring. For example: Photo Point Monitoring, Frederick C. Hall, PWG-GTR-526, USFS, March 2002.
5. Restoration of native plants at a ratio of 3:1 or with a planting density typical of historic conditions or at a level that will facilitate natural recruitment and recovery of the native riparian species.
6. If an invasive plant species is present and a native plant community does not exist or exists in combination with exotic plant species, the plan shall address the removal of the invasive species.
7. A description of how planting success will be determined. The criteria for success shall be 80 percent survival with 75 percent coverage after five years.
8. A post-extraction monitoring plan of plant survival and coverage requirements.

2.14 PROJECT CONDITIONS for the PROTECTION of RIPARIAN VEGETATION

2.14.7 Performance Standard for Revegetation

Vegetative Cover
A vegetative cover suitable for the proposed end use and capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer shall be established on disturbed land unless an artificially-maintained landscape is consistent with the approved reclamation plan.

Vegetative Cover or Density and Species Richness
A vegetative cover or density, and species richness shall be, where appropriate, sufficient to stabilize the surface against the effects of long-term erosion and shall be similar to naturally-occurring habitats in the surrounding area. The vegetative density, cover and species richness of naturally-occurring habitats shall be documented in baseline studies carried out and approved for adequacy by DFG prior to adaptive management activities. However, for areas that will not be reclaimed to prior conditions, the use of data from reference areas in lieu of baseline site data is permissible.

Use of Native Plant Species
Native plants proposed for use in site revegetation shall be approved in advance by DFG.
2.14.7 Performance Standard for Revegetation (cont)

Soil Stabilization and Irrigation

Soil stabilization practices shall be used where necessary to control erosion and for successful plant establishment. Irrigation may be used when necessary to establish vegetation.

Plant Protection Measures

Protection measures, such as fencing of revegetated areas or placement of cages over individual plants, shall be used in areas where grazing, trampling, herbivory, or other causes threaten the success of the proposed revegetation. Temporary electric fence shall be installed seasonally, and encompass sediment management areas where cattle grazing is taking place. Fencing shall be maintained until revegetation efforts are successfully completed and the lead agency authorizes its removal.

2.15 PROJECT CONDITIONS for PROTECTION of WETTED AREAS

Limitations on Vehicle and Equipment Use

DFG Approval of Vehicle and Equipment Use in the Live Stream Channel

No vehicles or equipment shall be operated in the live stream channel without prior approval of DFG.

2.16 PROJECT CONDITIONS for STREAM CROSSINGS

2.16.1 Haul Road Maintenance

At the commencement of the sediment removal season, the site Permittee grades the existing haul roads providing access to the approved sediment extraction areas. Within some sites, temporary haul routes may cross unmined bar surfaces for access to approved sediment removal sites. These temporary access routes may require periodic grading to maintain safe and efficient travel.

The grading of haul roads within the boundary of bank-full elevation consists of minor filling of cut banks scoured by winter high flow, removal of annual vegetation and/or immature riparian tree species within the haul road footprint, or the excavation of deposited sediment from haul road surfaces to ensure safe, efficient travel.

Operations will utilize existing established haul routes to the maximum extent possible, except for new permanent haul roads identified for installation on the 100% design plans, and portions of haul roads crossing regularly inundated bar surfaces. After completion of Phase 1 and 2, new haul roads proposed for installation through areas containing significant riparian vegetation will require mitigation to compensate for temporary or permanent loss of habitat. Vegetated areas shall be evaluated by a qualified botanist and compensatory mitigation shall be included with the accompanying annual adaptive management proposal. New haul roads and compensatory mitigation shall be approved by DFG prior to the applicant conducting the clearing and grading activity.

2.16.2 Haul Road Access

All haul roads shall be gated or blocked by k-rail or other effective means by the end of sediment removal activities every year.

2.17 PROJECT CONDITIONS for EXCAVATION of ACOVES

Alcoves

1. Alcoves shall not trap fish, must be open to the low flow channel at the downstream end for fish passage, and alcove slopes of the alcove shall not exceed 3:1.
2. Alcoves shall be designed to follow any existing vegetation patterns such that the shape of alcoves are irregular and bounded by existing vegetation.
3. Woody debris shall be placed in the alcoves to provide cover for fish and resting places for birds and amphibians. The woody debris shall be placed at least partially above the water surface elevation of the alcove.

2.18 PROJECT CONDITIONS for ANNUAL POST-ADAPTIVE MANAGEMENT SITE RECLAMATION and MONITORING

2.18.1 Riparian Vegetation

Work According to the Revegetation Plan

All revegetation work shall be done according to the revegetation plan prepared by the Permittee or their consultant that has been reviewed and approved by DFG. The Permittee shall notify DFG of any modifications made to this revegetation plan. Modifications to the revegetation plan must be reviewed and approved by DFG prior to their implementation.

Criteria for Revegetation Success

To ensure a successful revegetation effort, all plants shall be monitored and maintained as necessary for five years. All revegetation areas shall have a minimum of 60% cover of trees and shrubs at the end of five years and shall attain 80% cover after ten years. If the survival and/or cover requirements specified are not met, the Permittee is responsible for replacement planting, or other practice necessary to achieve these requirements. Replacement plants shall be monitored for survival and growth requirements for two years after planting and shall attain a survival rate of 80% after two years.

Variance from the Revegetation Success Criteria

If the project applicant can demonstrate that a lower success rate is due to high flows sufficient to have removed similar acreage of naturally established riparian vegetation on the stream within two miles of the project site, the lower success rate shall be accepted as compliant with this condition. A lower success rate attributed to inundation with sediment or lack of water shall not be accepted.
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| **2.18.1 Riparian Vegetation (cont)** | Annual Status Report on the Performance of the Revegetation Plan An annual status report on the revegetation effort shall be provided to DFG by January 15 of each year for period of ten years or until 80 percent cover for two consecutive years is achieved. This report shall include:  
1. Percent cover, and dbh for trees per the final HMM;  
2. Number of species of plants replaced;  
3. Overview of the revegetation effort, and the method used to assess these parameters; and  
4. Photos from the designated photo stations. |
| **2.18.2 Eelgrass** | Eelgrass monitoring shall be completed between May to August, during the northern California growing season. If pre-construction eelgrass densities are not achieved after three years, a mitigation plan shall be submitted to DFG for review and approval. A Letter of Permission shall be obtained from DFG prior to any eelgrass transplantation efforts. |
| **2.18.3 Sediment Management Areas and Channel Slopes** |  
**Reclamation Time Period**  
Sediment management areas shall be reclaimed, (site groomed or finish graded) beginning October 1 and finished by October 15, to those dimensions as described in the Annual Adaptive Management Plan, and in accordance with the conditions of this Agreement. When the Permittee has completed management activities and site reclamation, DFG shall be notified and a final site review will be scheduled. The purpose of the final review is to assess the site for additional end-of-season reclamation and recommend minor grading to ensure site drainage compliant with the approved annual management plan.  
**Sediment Stockpiles**  
During excavation, sediment is sometimes moved from a location within a management area and piled temporarily until transport to the disposal site can be coordinated. Temporary on-bar stockpiling is permitted to occur in areas designated in the approved pre-management proposal. All temporary stockpiles shall be removed by the end of the seasonal reclamation period. Temporary stockpiles shall be removed at the end of each work day for operations occurring after October 1.  
**2.18.3 Sediment Management Areas and Channel Slopes (cont)**  
Cut Bank Slopes  
Cut bank slopes that will be adjacent to the flowing water of the active stream, shall be contoured to be compatible with the local stream dynamics of the site.  
**Finished Bar Surfaces**  
Operations shall not result in a feature that will allow for the ponding of water or isolation of aquatic species in a location separate from the main channel during high flows. The gravel bar in the sediment removal area shall be left smooth with no pot holes or depressions. Natural features of streamlined topography outside of the extraction work area shall not be backfilled. |
| **2.19 PRE- and POST-ADAPTIVE MANAGEMENT SURVEY CROSS SECTIONS** | Full-channel monitoring cross-sections spaced through the project reach shall be surveyed annually. The full-channel monitoring cross sections provide an annual picture of bed elevation and geomorphic changes within the project reach and permit the assessment of long-term trends and changes associated with flood events and sediment removal processes. Temporary cross sections that pass through sediment removal areas shall be surveyed prior to and after extraction activities in order to show extent of excavation and provide a volume estimate of material removed.  
The monitoring cross-sections comprise the basis for the physical monitoring element of sediment removal operations. They shall be developed from annual surveys of the full channel area. The monitoring lines shall have permanently-monumented end points out of the channel area, referenced to common horizontal and vertical survey control grids. The lines can be relocated and resurveyed if a significant flow event erodes the banks and removes the monuments. Monitoring cross-section plots shall contain notation of water surface elevations, vegetation limits, survey control points, thalweg, silt line and annual high water line, if visible at the time of survey.  
Sediment removal cross sections are generally shorter, more closely spaced, temporary cross-sections used to provide an enhanced topographic relationship of the proposed extraction area, the wetted channel and features surrounding the extraction site. They shall be used for extraction planning and later during excavation for placement of grade control and Permittee reference to the approved annual adaptive management plan. Extraction areas less than 500 feet in length shall have a minimum of three cross-sections for extraction plan development and grade control. Extraction areas greater than 500 feet in length shall require a minimum of five cross-sections. |
| **13.3 Reasonable and Prudent Measures** | NMFS believes the following reasonable and prudent measures are necessary and appropriate to minimize take of SONCC coho salmon, CC Chinook salmon, and NC steelhead:  
1. Measures shall be taken to minimize harm and mortality to juvenile coho salmon and steelhead resulting from fish relocation, dewatering, or instream-construction activities. |
| **13.3 Reasonable and Prudent Measures** | NMFS believes the following reasonable and prudent measures are necessary and appropriate to minimize take of SONCC coho salmon, CC Chinook salmon, and NC steelhead:  
2. Measures shall be taken to ensure that the Corps and/or HRCD monitor and report take of listed salmonids. |
### 11.4 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the Corps and the Applicant (HRCS) must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are nondiscretionary.

| 175 | The following terms and conditions implement Reasonable and Prudent Measure 1, which states that measures shall be taken to minimize harm and mortality to coho salmon and steelhead resulting from fish relocation, dewatering, or instream construction activities: |
| NMFS | Both |
| | a. Fish relocation data must be provided as described in Term and Condition 2 below. If injury or mortality exceeds 3% of the coho salmon or steelhead captured then activities must immediately cease so that the cause of excessive injury or mortality can be assessed and ameliorated. NMFS shall be contacted at the address below within 24 hours. Fish killed shall be placed immediately in alcohol or placed on ice and delivered to the NMFS office identified under Term and Condition 2 below. |

| 176 | CONSERVATION RECOMMENDATIONS |
| NMFS | Both |
| | 1. NMFS should have the opportunity to provide input on any channel maintenance activities to minimize any adverse effects to critical habitat or listed coho salmon, Chinook salmon, or steelhead from maintenance activities. Therefore, NMFS should be contacted for input at least one month prior to the scheduled maintenance activities. |

| 177 | Demonstration of Adequate Property Rights |
| CDP NOI | Both |
| | 1. Demonstration of Adequate Property Rights |

| 178 | Final Revised Habitat Monitoring & Reporting Program |
| CDP NOI | Both |
| | 2. Final Revised Habitat Monitoring & Reporting Program (A) PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, copies of all landowner access agreements for all properties involved in all aspects of both Phase 1 and Phase 2 project activities and for properties proposed to receive Phase 2 excavated sediments for agronomic reuse. All landowner access agreements shall clearly demonstrate that the property owner grants permission to the applicant to undertake development on the property as conditioned by the Commission. |

| 178 | Final Revised Habitat Monitoring & Reporting Program(cont) |
| CDP NOI | Both |
| | 4. Verification that all wetlands, agricultural lands, and other sensitive habitats temporarily impacted by construction activities (estimated ~535 acres) have been returned to pre-project conditions as proposed shall be submitted for the review and approval of the Executive Director within 180 days of completion of each phase of construction. |
| | 5. A map of the Riverside Ranch tidal restoration areas with 1-foot elevation contours shall be submitted for the review and approval of the Executive Director within six months following completion of all restoration grading, filling, and dredging within the tidal restoration areas. |
| | 6. Continuous monitoring of water level and salinity at one location in the Eel River Estuary near the mouth of the Salt River and at two locations within the Riverside Ranch tidal restoration areas shall be performed from July 1 through October 31 during the first summer following completion of restoration grading and dredging. Within the restoration area, one instrument site shall be located in the most northern portion of the restoration area within the internal slough channel most distant from the Salt River, and one site shall similarly be located in the most southern portion of the restoration area. |
| | 7. Spot salinity measurements shall be collected in the Salt River channel within one hour of each higher high tide from July 1 through October 31 during the first summer following completion of restoration dredging in order to create a depth profile of salinity at several locations and thereby to determine the upstream limit and approximate shape of the tidal salt water wedge. |
2. Final Revised Habitat Monitoring & Reporting Program (cont)

8. Quantitative monitoring of the Riverside Ranch tidal restoration area shall be conducted, including mapping and estimating the total cover of broad community types, which may be based on the analysis of aerial or satellite imagery. Field sampling shall include spatially stratified, random samples with visual estimates of cover by species within elevational strata in both the north and south restoration areas. Elevational strata shall each be spatially stratified to ensure roughly uniform sampling of the entire restoration area. Sampling shall take place during the period June 1 through August 31 during the 3rd, 5th, and 10th years (at a minimum) following the completion of restoration activities.

9. Quantitative monitoring of the riparian restoration areas shall be conducted, including boundary mapping and cover and diversity estimates based on spatially stratified, random samples within each habitat reach (e.g., "spruce dominated riparian forest with brackish marsh") and within each habitat type (i.e., active channel edge riparian vegetation, active berm shrub and herbaceous vegetation, and riparian forest). Total cover within each habitat type may be estimated from aerial or satellite imagery. Field sampling shall include visual estimates of the proportional representation and average diameter-at-breast-height (DBH) of each tree species and visual estimates of cover of each shrub and herbaceous species within the active bench. Sampling and boundary mapping shall take place during the period of June 1 through August 31 during the 3rd, 5th, and 10th years (at a minimum) following the completion of restoration activities. In addition, the boundaries and estimated cover of riparian areas shall be estimated from aerial photographs or from on-the-ground GPS surveys in the 15th and 20th years following completion of restoration activities. The riparian boundaries from each survey shall be overlain on all previous boundary determinations in order to determine the spatial stability of the riparian restoration.

10. Monitoring criteria for each habitat type shall be provided, including criteria for species diversity and composition.

2. Final Revised Habitat Monitoring & Reporting Program (cont)

11. An eelgrass mitigation and monitoring plan shall be prepared and implemented pursuant to Special Condition No. 11 to ensure that eelgrass is sufficiently restored in the area to compensate for anticipated direct impacts to approximately 1.2 acres of eelgrass.

12. Tidewater goby surveys shall be conducted in suitable habitats of the project restoration areas at a minimum in the 3rd, 5th, and 10th years following the completion of restoration activities.

13. Salmonid surveys shall be conducted in the project restoration areas at a minimum in the 3rd, 5th, and 10th years following completion of restoration activities.

14. Avian surveys shall be conducted in the project restoration areas at a minimum in the 3rd, 5th, and 10th years following completion of restoration activities.

15. A wetland delineation shall be completed in the 5th year following completion of restoration activities. The delineation within the Riverside Ranch tidal restoration area may be based on the results of the mapping, measurement, and sampling required in condition subsections 1, 2 & 5 above, with spot checks of the estimated wetland boundary.

16. Periodic documentation of channel profiles of the Salt River and of tidal creeks in the Riverside Ranch tidal restoration area shall be conducted to determine channel stability and to measure changes that may need to be addressed by adaptive management.

17. Only native and/or non-persistent, non-invasive and/or pasture mix plants shall be used in all proposed plantings and seed mixes to be used in the project consistent with the requirements of Special Condition No. 12.

2. Final Revised Habitat Monitoring & Reporting Program (cont)

18. A reporting schedule shall be submitted to the Executive Director, which includes, but is not necessarily limited to, all of the following:

(a) a report documenting that all temporary impact areas have been restored to pre-project conditions within 180 days of each phase of construction consistent with subsection (4) above;

(b) a map of the Riverside Ranch tidal restoration areas consistent with subsection (5) above within six months following completion of Phase 1 construction;

(c) a report documenting the results of hydrological monitoring required by subsections (6) and (7) above by November 30 of the first year following completion of each phase of construction documenting that the physical restoration was built-to-plan;

(d) reports documenting that the biological/habitat restoration based on seeding and container planting was built-to-plan within four months of completion of restoration activities for each Phase 1 and Phase 2 construction;

(e) the results of biological monitoring (including fish, bird, eelgrass, and other rare plant survey results) in the 3rd, 5th, and 10th years following completion of Phase 2 restoration activities, including an assessment of success relative to the established criteria, within one year of completion of each year of field sampling;

(f) the results of the wetland delineation required by subsection (15) above documenting a minimum of 757 acres of wetlands within the project area footprint;

(g) the results of the riparian habitat restoration required by subsection (9) above documenting a minimum of 128 acres of riparian habitat within the project area footprint;

(h) the revised or supplemental restoration and monitoring program described in subsection (8) below.
2. Final Revised Habitat Monitoring & Reporting Program (cont)

18(b) If the 10th-year biological monitoring report indicates that the project has been unsuccessful, in part, or in whole, based on the approved goals and objectives set forth in the approved coastal development permit application, the permittee shall submit an application for an amendment to CDP No. 1-10-032 proposing a revised or supplemental restoration and monitoring program to compensate for those portions of the original program which did not meet the approved goals and objectives within six months of submittal of the 10th-year biological monitoring report.

18(c) The permittee shall monitor the project site in accordance with the approved final habitat restoration and monitoring program. Any proposed changes to the approved final monitoring program shall be reported to the Executive Director. No changes to the approved final monitoring program shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

6. Final Debris Disposal Plans

(a) PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, final plans for the disposal of all construction debris, excess sediments, vegetative spoils, and any other debris and waste expected to be generated by the authorized Phase One (1) work. In addition, PRIOR TO COMMENCEMENT OF PHASE TWO (2) DEVELOPMENT, the applicant shall submit, for the review and approval of the Executive Director, final plans for the disposal of all construction debris, excess sediments, vegetative spoils, and any other debris and waste expected to be generated by the authorized Phase 2 work.

1. The plans shall demonstrate that:

a. All temporary stockpiles of construction debris, excess sediments not approved for reuse on surrounding agricultural uplands pursuant to Special Condition No. 13, vegetative spoils, and any other debris and waste associated with the authorized work shall be minimized and limited to areas within the proposed project footprint as depicted on the final approved construction plans required by Special Condition No. 5 and where they can feasibly be contained with appropriate BMPs to prevent any discharge of contaminants to coastal waters and wetlands;

b. All construction debris, excess sediments not approved for reuse on surrounding agricultural uplands pursuant to Special Condition No. 13, vegetative spoils, and any other debris and waste generated by the authorized work shall be disposed of at an authorized disposal site(s) capable of receiving such materials;

6. Final Debris Disposal Plans (cont)

(c) Side casting or placement of any construction debris, excess sediments not approved for reuse on surrounding agricultural uplands pursuant to Special Condition No. 13, vegetative spoils, and any other debris and waste generated by the authorized work within the Salt River, any slough, creek, or drainage, or any other wetland area, including grazed seasonal wetlands, is prohibited; and

d. Disposal of excavated sediments on surrounding agricultural uplands in the coastal zone for agronomic reuse purposes shall occur only on properties for which final sediment reuse plans have been approved pursuant to Special Condition No. 13.

2. The plans shall include, at a minimum, the following:

a. A site plan showing all proposed locations for the temporary stockpiling of construction debris, excess sediments, vegetative spoils, and any other debris and waste associated with the authorized work during construction operations;

b. A description of the manner by which the stockpiled materials will be removed from the construction site and identification of all debris disposal sites that will be used; and

c. A schedule for the removal of all construction debris, excess sediments, vegetative spoils, and any other debris and waste associated with the authorized work.

(b) The permittee shall undertake development in accordance with the approved final debris disposal plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.
7. Protection of Sensitive Fish and Aquatic Resources

The permittee shall undertake all development authorized by CDP No. 1-10-032 in accordance with the fish and aquatic resources protection measures and protocols detailed in the application and included within the February 2011 Final Environmental Impact Report (Mitigation Monitoring and Reporting Program) and the two Biological Assessments (May 25, 2011 and June 2011) prepared for the project to ensure minimization of impacts to sensitive fish species and sensitive fish critical habitat within and around the project area. Fish and aquatic resources protection measures shall include, but shall not necessarily be limited to, the following:

(A) Coff er dams shall be erected prior to dewatering;

(B) Channels shall be dewatered prior to excavation under the supervision of a qualified aquatic biologist;

(C) Fish screens shall be installed upstream of coffer dams to prevent aquatic organisms from transfer into bypass piping;

(D) A qualified biologist shall appropriately use seining, dip nets, electrofishing, or other trapping procedures to transfer aquatic organisms out of the work area;

(E) Any captured Sacramento pikeminnow shall be euthanized rather than relocated;

(F) Coff er dam construction, channel dewatering, and relocation of aquatic organisms shall be performed in consultation with staff from NOAA Fisheries, DFG, and Fish & Wildlife Service;

(G) The various avoidance and minimization measures for tidewater goby shall be implemented as proposed in the May 25, 2011 Biological Assessment; and

(H) The various water quality protection measures required by Special Condition Nos. 3, 4, and 6 shall be implemented.

8. Sacramento Pikeminnow Mitigation Measures

The permittee shall undertake monitoring and control of Sacramento pikeminnow in the project area as proposed in the June 2011 Biological Assessment prepared for the project including, but not necessarily limited to, conducting annual monitoring for and documentation of pikeminnow for at least five years following completion of Phase 2 development to assess presence/absence, population estimates, habitat preferences, dietary preferences, movement patterns, and other factors. Annual reports shall be submitted to the Executive Director by December 31 of each year. In the event that adult pikeminnow greater than 10 inches in size become dominant in the project area, a control program shall be implemented as proposed in the Biological Assessment. The pikeminnow control program shall require an amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

9. Riparian Vegetation Removal Restrictions

Authorized riparian vegetation removal is prohibited during the portion of the bird breeding/nesting seasons between March 1 and July 1. During the remaining portion of the bird breeding and nesting season between July 1 and August 15, riparian vegetation removal may only occur if (a) a qualified biologist has surveyed the area according to the approved Sensitive Bird Nesting Habitat Protection Plan required by Special Condition No. 10, and (b) the survey results indicate that no willow flycatchers are present in the area and no nesting habitat for any bird species is present in the area. Authorized vegetation removal may occur without these restrictions between August 15 and March 1.

10. Protection of Bird Breeding & Nesting Habitat

(A) PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, for the review and written approval of the Executive Director, a Sensitive Bird Nesting Habitat Protection Plan, prepared by a qualified biologist, for conducting seasonally appropriate pre-construction surveys for sensitive bird nesting habitat in the project area and protecting such habitat from construction impacts. The plan shall include, at a minimum, the following:

1. Provisions for surveying the project area each year by a qualified biologist according to current Department of Fish and Game protocols no more than one week prior to commencement of construction activities proposed to occur that year during the bird breeding and nesting season (March 1 through August 15) for the presence of active nesting habitat;

2. Provisions for avoiding construction activities other than vehicular use of roads during the nesting season(s) within 100 feet of an occupied nest of any native migratory bird species; within 300 feet of an occupied nest of any special-status bird species; and within 500 feet of an occupied nest of any raptor species. No-disturbance buffers around active nests shall be maintained until completion of nesting.

3. Provisions for submittal of the surveys required above for the review and approval of the Executive Director prior to the commencement of authorized work each year during the bird breeding and nesting season that includes a map that locates any sensitive nesting habitat identified by the surveys and a narrative that describes sensitive habitat avoidance measures proposed.

10. Protection of Bird Breeding & Nesting Habitat (cont)

(B) The permittee shall undertake development in accordance with the approved final sensitive bird nesting habitat protection plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.
11. Final Revised Rare Plant Mitigation and Monitoring Plan

(A) PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, the applicant shall submit, for the review and approval of the Executive Director, a final revised rare plant mitigation and monitoring plan prepared by a qualified botanist or ecologist that substantially conforms with the plan prepared by H.T. Harvey & Associates titled “Salt River Ecosystem Restoration Project Rare Plant Mitigation and Monitoring Plan” dated January 27, 2011, except that the plan shall be revised to include various additional provisions for eelgrass mitigation and monitoring, as follows:

1. A pre-construction eelgrass survey shall be completed during the months of May through August. The pre-construction survey shall be completed prior to the beginning of construction and shall be valid until the next period of active growth.

2. A post-construction eelgrass survey shall be completed in the same month as the pre-construction survey during the next growing season immediately following the completion of construction.

3. If post-construction eelgrass surveys indicate any decrease in eelgrass density or cover, then the site shall be monitored consistent with the approved final mitigation and monitoring plan until the performance criteria in subsection (6) have been met. If post-construction survey results demonstrate to the satisfaction of the Executive Director that eelgrass densities have not decreased at all and there has been no loss of extent of vegetated cover, then no further monitoring or mitigation is required.

11. Final Revised Rare Plant Mitigation and Monitoring Plan (cont)

4. Adverse impacts to eelgrass shall be measured as the difference between the pre-construction and post-construction estimates of eelgrass cover and density. The extent of vegetated cover is defined as that area where eelgrass is present and where gaps in coverage are less than one meter between individual turion clusters. Density is defined as the average number of turions per unit area.

5. Density and extent of vegetative cover shall be estimated at control areas during pre-construction surveys, post-construction surveys, and during annual monitoring. Changes in density and extent of vegetated cover of the control areas shall be used to account for natural variability. Selection of an appropriate control site shall be performed in consultation with the Department of Fish and Game and NOAA-Fisheries staff.

6. Within three years of completion of the project (both phases), the entire pre-construction eelgrass area plus the restored areas suitable for eelgrass recruitment shall have an extent of vegetative cover equal to at least 1.2 times the impacted area and have an average density equal to the pre-construction average density.

7. Monitoring methods shall include mapping and random sampling of the eelgrass areas using a sampling size adequate to obtain representative qualitative data for the entire project site to determine percent cover and shoot density as defined in subsection (4) above.

8. A detailed monitoring schedule shall be provided that indicates when each of the required monitoring events will be completed. Monitoring reports shall be provided to the Executive Director, DFG, and NOAA-Fisheries within 30 days of completion of each required monitoring period;

11. Final Revised Rare Plant Mitigation and Monitoring Plan (cont)

9. If the impacted eelgrass areas have not met the recovery standard in subsection (6) in three years, the areas shall be remediated within one year of a determination by the permittee or the Executive Director that monitoring results indicate that recovery has not taken place;

10. A detailed remediation plan shall be included that provides for mitigation site identification, planting methods, monitoring methods, and schedule. Specific success and monitoring criteria are as follows:
   a. A minimum of 70 percent aerial coverage and 30 percent density in the mitigation area after the first year;
   b. A minimum of 85 percent aerial coverage and 70 percent density in the mitigation area after the second year;
   c. A minimum of 100 percent aerial coverage and 85 percent density in the mitigation area after the third year.

11. Final Revised Rare Plant Mitigation and Monitoring Plan (cont)

(B) If the performance criteria in subsection (A) 10 above have not been met at the end of the three-year remediation period, the permittee shall submit an application for an amendment to Coastal Development Permit No. 1-10-032 proposing additional mitigation to ensure all performance criteria are satisfied consistent with all terms and conditions of this permit.

(C) The permittee shall undertake development in accordance with the approved final rare plant mitigation and monitoring plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.
12. Revegetation Standards & Limitations

(A) Only native plant species shall be planted in the proposed restoration areas. All proposed plantings shall be obtained from local genetic stocks within Humboldt County. If documentation is provided to the Executive Director that demonstrates that native vegetation from local genetic stock is not available, native vegetation obtained from genetic stock outside of the local area may be used. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or as may be identified from time to time by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a “noxious weed” by the governments of the State of California or the United States shall be utilized within the project area.

(B) For the proposed soil stabilization and erosion control applications, regionally appropriate native plants shall be used if feasible. If infeasible (e.g., on privately owned pasturclands disturbed by temporary construction impacts proposed to be restored to agricultural production), the use of nonnative species or varieties may be used [e.g., sterile, short-lived, non-persistent cereal grasses such as barley (Hordeum vulgare), buckwheat (Fagopyrum esculentum), rye (Secale cereale), and wheat (Triticum aestivum)] only if the proposed species or varieties are known not to persist or spread in the ecosystem. Alternatively, the pasture mix proposed in the May 4, 2011 Habitat Mitigation and Monitoring Plan may be used in areas proposed to be restored to pasture grazing use.

(C) All proposed planting shall be completed by the end of the first full optimal planting season that occurs after completion of construction;

13. Final Sediment Reuse Plans

(A) PRIOR TO COMMENCEMENT OF PHASE TWO (2) CONSTRUCTION AND PRIOR TO THE PLACEMENT OF EXCAVATED SEDIMENTS ON ANY AGRICULTURAL PROPERTY, the applicant shall submit, for the review and approval of the Executive Director, a final sediment reuse plan for the agricultural property proposed to receive excavated sediments. Each sediment reuse plan shall provide that no excavated sediments shall be placed either within any wetlands located on or immediately adjacent to the subject property or within wetland buffer areas as proposed in the example sediment reuse plan included as Appendix E of the document titled “Wetland Buffer Assessment for Sediment Reuse Areas on Agricultural Lands” prepared by Winzler & Kelly dated August 2011. The final sediment reuse plans shall substantially conform to the example sediment reuse plan, except that each plan shall be made site-specific for each property and shall include the following additional provisions:

1. A narrative description of
   (a) property owner name, site location, and APN(s);
   (b) the upland acreage available on the subject property for receiving excavated sediments for sediment reuse;
   (c) the amount of excavated sediments proposed to be placed on the subject property for sediment reuse;
   (d) generally when, how, and where the excavated sediments will be applied on the subject property, whether the material will be temporarily windrowed and if so for how long, and any other relevant details;
   (e) the work window for sediment application on agricultural uplands, with the restriction that sediments shall be applied only during the generally dryer period of April through November;
   (f) specific best management practices to be used to ensure that no wind- or rain-induced erosion results from the stockpiling and application of material on the subject site;
   (g) the applicable setback distances from the sediment windrowing and application areas that shall be established on the subject property;
   (h) limitations and restrictions imposed on established buffer areas during the reestablishment of vegetation following sediment application on the sediment reuse area (e.g., vegetation maintenance, allowable depth of overland flow through the area, etc.); and
   (i) the upland and/or wetland delineation reference applicable to the specific property.

13. Final Sediment Reuse Plans (cont)

2. A clear, appropriately scaled graphic depiction of (a) all areas of the subject property proposed to receive excavated material for sediment reuse; (b) all wetlands on and immediately adjacent to the subject property; (c) all applicable setback buffers (from delineated wetlands, fence lines with wetlands on adjacent properties, etc.) for the subject property as proposed in the August 2011 example sediment reuse plan; (d) proposed windrow/stockpiling areas; (e) locations of specified BMPs; and (f) any upland or wetland delineation data points recorded on the subject property.

3. Addition of a sediment reuse note that explains that the placement of the excavated sediments on the property for temporary stockpiling and subsequent sediment reuse is regulated as a form of development under Coastal Development Permit No. 1-10-032 subject to the applicable terms and conditions of the CDP.

(B) The permittee shall ensure that excavated sediment disposal/reuse is undertaken in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.
14. Final Revised Adaptive Management Plan

(A) PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, a final revised adaptive management plan that substantially conforms to the Adaptive Management Plan (AMP) prepared by H.T. Harvey & Associates dated January 28, 2011 and the AMP Supplement Update Table A-1 dated September 7, 2011, except that the plan shall be revised to include provisions for all of the following:

1. All measures, protocols, standards, limitations, and BMPs listed in Special Condition Nos. 2 through 13 of CDP No. 1-10-032 shall be applied as they relate to each specific “potential management action” listed in AMP Supplement Update Table A-1.

2. Channel excavation to remove sediment to improve channel function (row #4 of Supplement Update Table A-1) shall be limited annually to an area not to exceed 50,000 cubic yards of sediment and 2,000 linear feet of sediment removal.

3. Pre- and post-storm maintenance activities in the channel (row #6 of Supplement Update Table A-1) shall be restricted annually to the period of June 1 through November 30 only;

4. The removal of any native vegetation in riparian forest restoration areas and existing riparian areas (row #10 of Supplement Update Table A-1) shall be prohibited without an amendment to this coastal development permit.

15. Length of Development Authorization for Ongoing Maintenance and Adaptive Management Activities Authorized by CDP 1-10-032

Development authorized by this permit is valid for five (5) years from the date of Commission approval (until October 5, 2016). One request for an additional five-year period of development authorization may be accepted, reviewed and approved by the Executive Director for a maximum total of ten (10) years of development authorization, provided the request would not alter the project description and/or require modifications of conditions due to new information or technology or other changed circumstances. The request for an additional five-year period of development authorization shall be made at least 120 days prior to October 5, 2016. If the request for an additional five-year authorization period would alter the project description and/or require modifications of conditions due to new information or technology or other changed circumstances, an amendment to CDP No. 1-10-032 shall be necessary to authorize development beyond October 5, 2016.

(A) PRIOR TO COMMENCEMENT OF ANNUAL MAINTENANCE AND/OR ADAPTIVE MANAGEMENT OPERATIONS IN ANY YEAR IN WHICH MAINTENANCE AND/OR ADAPTIVE MANAGEMENT OPERATIONS ARE CONDUCTED PURSUANT TO THIS COASTAL DEVELOPMENT PERMIT AUTHORIZATION, the permittee shall submit, for the review and approval of the Executive Director, an annual Maintenance/Adaptive Management Operations Plan for that year’s proposed maintenance/adaptive management work that (a) is consistent with the final revised Adaptive Management Plan approved by the Executive Director pursuant to Special Condition No. 14, (b) is consistent with all terms and conditions of Coastal Development Permit No. 1-10-032, and (c) contains, at a minimum, the following information:

1. A site plan depicting the location(s) of proposed annual maintenance and/or adaptive management activities, including applicable Assessor’s Parcel Numbers and property owner names for all proposed work sites and associated construction areas;

2. A description of the type(s) of annual maintenance/adaptive management activities proposed;

3. Cross sections, maps, and associated calculations as necessary that accurately depict the proposed annual maintenance/adaptive management work area(s);

4. Copies of any necessary biological and botanical surveys needed for approval of annual maintenance/adaptive management activities;

5. A plan for erosion, runoff, and sedimentation control to avoid significant adverse impacts on coastal resources. The plan shall demonstrate that (a) run-off from the work sites shall not increase sedimentation or result in pollutants entering coastal waters; and (b) Best Management Practices (BMPs) shall be used to prevent entry of polluted stormwater runoff into coastal waters during the construction, including the use of relevant BMPs as detailed in the current California Storm Water Quality Best Management Handbooks (http://www.cabmphandbooks.com). The plan shall contain both (a) a narrative report and a site plan describing the locations of all temporary erosion, runoff, and sedimentation control measures to be used during annual maintenance/adaptive management activities; and (b) a schedule for installation and removal of the temporary control measures.

6. If applicable, a debris disposal plan consistent with Special Condition No. 6;

7. If applicable, a creek dewatering and diversion plan consistent with the protection measures outlined in Special Condition No. 7.

8. If applicable, a revegetation plan consistent with restrictions enumerated in Special Condition No. 12;

9. If applicable, a sediment reuse plan consistent with Special Condition No. 13; and

10. A schedule for proposed annual maintenance/adaptive management activities.

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

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17. **Final Revised Agricultural Enhancement Monitoring Plan**

(A) PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, the permittee shall submit, for the review and approval of the Executive Director, a final Agricultural Enhancement Monitoring Plan designed to monitor changes in agricultural productivity within and around the project area resulting from implementation of the proposed project. The plan shall substantially conform to the Agricultural Enhancement Monitoring Plan submitted with the coastal development permit application, except that it shall contain the following additional provisions:

1. Provisions for ensuring that agricultural productivity shall be increased by at least 4,270 Animal Unit Months (AUMs) per year (or an equivalent agricultural productivity value) on the 750 acres of prime agricultural lands within and around the project area footprint within five years of completion of Phase 2 construction;

2. Details on the proposed methods for measuring changes in agricultural productivity within and around the project area over a minimum five-year period following completion of Phase 2 construction;

3. A map depicting all agricultural lands proposed to be included in the agricultural enhancement monitoring area, including a calculation of the total acreage of lands to be included within and surrounding the project area. The map shall depict all "prime agricultural land" (as defined in Section 10160 of Title 14 of the California Code of Regulations) within the agricultural enhancement monitoring area;

4. Provisions for submittal of documentation to the Executive Director at the end of the 5-year monitoring period demonstrating that agricultural productivity on the 750 acres of prime agricultural lands within and around the project area has been increased by at least 4,270 AUMs per year or an equivalent measure of agricultural productivity; and
17. Final Revised Agricultural Enhancement Monitoring Plan (cont)

5. A detailed monitoring and reporting schedule that indicates when the agricultural productivity monitoring events will be completed throughout the proposed monitoring program and when annual reports will be submitted to the Executive Director. Monitoring reports shall be provided to the Executive Director annually beginning the first year following completion of Phase 2 construction and continuing each year for at least five years.

191 (B) If the 5th-year monitoring report indicates that the project has been unsuccessful, in part or in whole, the permittee shall submit an application for an amendment to CDP No. 1-10-032 proposing revisions to the project authorized by CDP No. 1-10-032 to achieve the increase in agricultural productivity required by Section (A)-(4) above.

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

18. Restoration of Prime Agricultural Land on Riverside Ranch

(A) PRIOR TO COMMENCEMENT OF DEVELOPMENT OTHER THAN AUTHORIZED VEGETATION REMOVAL, the permittee shall submit, for the review and approval of the Executive Director, a plan to transform at least fifty-two (52) acres of currently non-prime agricultural land on Riverside Ranch to “prime agricultural land” as defined in Section 51201(c) of the California Government Code within five (5) years of completion of Phase 1 construction. The plan shall include provisions for all of the following:

1. Within five years of completion of Phase 1 construction, at least 52 acres of the retained agricultural land on Riverside Ranch shall qualify as prime based on any one of the four paragraphs of Section 51201(c) of the California Government Code;

2. A description of the agricultural management activities that will be undertaken to restore the agricultural land to prime conditions and the type of documentation that will be submitted as evidence that the land has been transformed to prime.

3. A site plan depicting the property’s agricultural features such as proposed fences and/or livestock fencing maintenance areas, grazing and/or pasturing areas, agricultural structures, water lines, and other infrastructure, etc.;

4. Provisions for submittal of a report to the Executive Director at the end of the 5th-year following completion of Phase 1 construction documenting how much of the retained agricultural land on Riverside Ranch qualifies at that time as prime based on any one of the four paragraphs of Section 51201(c) of the California Government Code.

(CDNI NOI Both

18. Restoration of Prime Agricultural Land on Riverside Ranch (cont)

(B) If the 5th-year monitoring report indicates that less than 52 acres of the retained agricultural land on Riverside Ranch qualifies as prime agricultural land, the permittee shall submit an application for an amendment to CDP No. 1-10-032 proposing either (i) corrective measures to ensure that at least 52 acres of the retained agricultural land on Riverside Ranch will qualify as prime agricultural land within one year of approval of the permit amendment, or (ii) to transform other non-prime agricultural land elsewhere within the coastal zone in the Eel River Delta to prime agricultural land in an amount equal to or greater than the number of acres less than 52 that have been transformed to prime agricultural land on Riverside Ranch.

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

19. Submittal of Upslope Sediment Reduction Program Annual Progress Reports

The Upslope Sediment Reduction Program as described in the Final Environmental Impact Report for the Salt River Ecosystem Restoration Project shall be implemented as proposed, and annual progress reports on the program shall be submitted for the review and approval of the Executive Director by December 31 of each calendar year for the duration of the five-year monitoring period required by Special Condition No.

(CDNI NOI Both

17. The annual reports shall (a) document the progress made during the reporting period in planning, coordinating, and implementing specific erosion control and sediment reduction projects under the program, (b) summarize the total number of sites treated under the program to date, (c) identify the high-priority sites to be addressed in the coming year of the program and discuss the steps needed to implement an erosion control or sediment reduction project at each site, (d) identify funding that has been secured to date and the amount of new funding that was secured over the reporting period, and (e) identify steps to be followed to secure additional needed funding over the next year.

20. Assumption of Risk, Waiver of Liability and Indemnity Agreement

By acceptance of this permit the applicant acknowledges and agrees (i) that the site may be subject to hazards from flooding, tsunami wave run-up, erosion, and earth movement; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission’s approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.
22. Final Public Access Plan

(A) WITHIN TWO (2) YEARS OF COMPLETION OF PHASE ONE (1) CONSTRUCTION, the permittee shall submit, for the review and approval of the Executive Director, a final public access plan providing for public access at the Department of Fish and Game-owned property known as Riverside Ranch.

(1) The plan shall demonstrate all of the following:

a. A boating put-in and/or take-out access point for at least non-motorized boating use shall be developed on the Riverside Ranch Property to provide boating access to the property for the public.

b. Vehicular access to the Riverside Ranch property shall be provided either via (i) Riverside Road unless the permittee demonstrates to the satisfaction of the Executive Director that the portions of Riverside Road needed to gain access to the Riverside Ranch property are not publically owned, (ii) Camp Weott Road, Dillon Road, or Port Kenyon Road with a vehicular or footbridge over the Salt River to the Riverside Ranch property if the selected alternative is demonstrated to be feasible to the satisfaction of the Executive Director, or (iii) another public vehicular access alternative approved by a Commission amendment to this coastal development permit.

c. Public access amenities shall be provided at the subject property within one year of approval of the approved final public access plan.

22. Final Public Access Plan (cont)

d. Public access amenities shall include, at a minimum all of the following:

(i) Public vehicular parking;

(ii) A trail suitable for foot traffic on top of and along at least half the length of the new setback berm unless the permittee: (a) demonstrates that access along half of the setback berm cannot be provided consistent with the protection of fragile coastal resources and agricultural resources on the subject property, and (b) obtains a Commission amendment to this coastal development permit to reduce the amount or change the location of the required public access; and

(iii) Signage delineating the public access areas to facilitate public use.

22. Final Public Access Plan (cont)

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

a. A narrative and site plan showing how public vehicular access will be provided to the property and which demonstrates that (i) the route of the access alternative is legally available for use by the public and (ii) all necessary permit authorizations from public agencies for improvement of the access alternative can be obtained for the alternative;

b. An analysis, based on applicable monitoring results reported pursuant to Special Condition No. 2 and/or other property-specific scientific data and/or factors, explaining which portions of the property are suitable for public access and recreational uses consistent with the protection of fragile coastal resources and agricultural uses on the subject property;

c. An analysis, based on applicable monitoring results reported pursuant to Special Condition No. 2 and/or other property-specific scientific data and/or factors, explaining what intensity of use (e.g., frequency and timing of use in terms of hours per day or days per week or months per year) and what types of uses are appropriate for public access and recreational uses at the property consistent with the protection of fragile coastal resources and agricultural uses on the subject property;

d. Discussions of the regulations and management that will be used to facilitate, manage, and provide public access to the approved project.
### 22. Final Public Access Plan (cont)

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<td>e.</td>
<td>A clear depiction of all proposed public access areas and amenities, including, but not limited to, all parking areas, trails, walkways, boating access points, restrooms, bench seating, trash and recycling receptacles, bicycle racks, and/or other public access amenities as proposed;</td>
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<td>f.</td>
<td>Clear identification of all parameters for use of the site by the public, including hours and days of admittance, compatible types of public access use, and other applicable parameters; and</td>
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<td>g.</td>
<td>A signage plan identifying all signs and any other project elements that will be used to facilitate, manage, and provide public access to the approved project, including, if applicable, identification of all public education/interpretation features that will be provided on the site (educational displays, interpretive signage, etc.). Sign details showing the location, materials, design, and text of all public access signs shall be provided. Signs shall be designed so as to provide clear information without impacting public views and site character. Public access signage shall acknowledge the participants in the design and provision of the public access components, including the California Coastal Commission.</td>
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(B) The permits shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

### 1.1 Applicant must apply for and obtain an encroachment permit for all permanent and temporary construction entrances from County maintained roads. Construction entrances shall be constructed per Section TC 1.1 of the California Storm water BMP Handbook (November 2009). The construction entrances shall be constructed with a swale to allow drainage to flow across the entrance; no culvert is to be used. Culverts will not be permitted. All temporary construction entrances shall be removed and any base restored for final project signoff. In addition, the land shall be naturalized so that it does not appear that an access road was ever constructed at that location. |

### 1.2 For paved / chip seal County roads: All permanent encroachments shall be paved a minimum of 25 feet back from the edge of the existing road pavement and be flared a minimum of 30 feet at the intersection with the County road. All temporary encroachments with an estimated ADT exceeding 8 may be required to be paved per the above standard. At the time the finalized plans are submitted, the Department will review each permanent and temporary encroachment on an individual basis to determine construction entrance paving requirements. |

### 1.3 For Gravel County roads: All permanent and temporary encroachments shall be sufficiently graded (minimum six inches [6"])) in order to create an all weather driving surface and to keep all earthen materials off the County road. |

### 1.4 Site visibility must be maintained at the construction entrance in conformance with County Code. All fence or gate structures (pillars) shall be a minimum of 25 feet back from the existing edge of pavement. |

### 1.5 All fueling, equipment maintenance, staging, and construction management shall be located outside the County road right of way. |

### 1.6 The County roads are not constructed to allow for parking; therefore, all construction and inspection vehicles shall be provided an area outside the County right of way. No construction materials (construction trailers, storage containers, equipment, materials, etc.) or staging activities shall be allowed within County right of way. |

### 1.7 Prior to relocation, all utility relocations within the County right of way shall be staked and approved by the County. |

### 1.8 Prior issuance of an encroachment permit, a deposit will be required for review, inspection, and administration services by the Department. All review, inspection, and administration services by the Department rendered in connection with the work covered by an encroachment permit shall be paid for in accordance with the latest Humboldt County Schedule of Fees and Charges for Permits and Services adopted by the Board of Supervisors. |

### 2.1 A Traffic Management Plan (TMP) shall be submitted to the Department of Public Works -Land Use Division for review and approval. The TMP shall be a living document, updated as project conditions change. Weekly on-site meetings shall be performed to review and update the TMP. The TMP shall show road ADT, proposed ADT, duration, staging areas, and sign placement. All temporary construction entrances shall be marked in the field. After site approval is met, access shall be constructed to Caltrans BMP standards. |

### 2.2 The Department shall perform daily inspections of the TMP implementation. |

### 3.1 Applicant shall be responsible to correct any involved drainage problems on the County road as a direct result of the project to the satisfaction of this Department. |

### 3.2 Applicant shall minimize the transport of sediment to drainage courses during construction. County Inspector (Ken Freed, Senior Engineering Technician, 445-7205) shall be notified by applicant for review and approval of installed erosion control measures. |

### 3.3 Applicant shall provide a precise grading plan for all excavations within 50 feet of a County bridge. Drawings shall provide detail to insure that the bridge footings, piers, and headwalls are not undermined. |

### 4.1 All equipment and loads over weight, over length, or over width will require a transportation permit from this Department. |

### 5.1 California Storm Water Quality Association (CASQA) BMPs shall be used to prevent the tracking of material onto County roads. The following BMPs shall be used at a minimum: stone wash pad; rumble rocks; sweeping roads on a daily basis. |

### 5.2 All construction sites and haul roads shall be maintained, as necessary, to minimize the erosion of dust and prevent the creation of a nuisance to adjacent properties. The applicant shall submit a dust control plan for review and approval by the County. The dust control plan shall include CASQA BMPs and provide waterin g frequency intervals. |

### 5.3 All bridges shall be cleared of all sediment and debris on a daily basis or as directed by this Department. |

### GC 1. The time limit for completing the work authorized ends on March 2, 2022. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached. The time extension is required for continued maintenance activities in jurisdictional waters. |

### GC 2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area. |
215 SC 3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places. USACE 404 Both

216 SC 4. You must comply with the conditions specified in the 401 certification as a condition to this permit. For your convenience, a copy of the certification is attached (Enclosure 4). USACE 404 Both

217 SC 5. You must allow representatives from this office to inspect the authorized activity following 48 hours notice to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit. USACE 404 Both

218 SC 6. You understand and agree that, if future operations by the United States require the removal, relocation or other alteration of the structure or work authorized herein, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, you will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration. USACE 404 Both

219 SC 1. This Corps permit does not authorize you to take an endangered species. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) e.g., an ESA Section 10 permit or a Biological Opinion (BO) under ESA Section 7 with "incidental take" provisions with which you must comply. The enclosed U.S. Fish and Wildlife Service BO dated November 22, 2011 (Enclosure 3) and National Marine Fisheries Service BO dated January 25, 2012 (Enclosure 5) contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BOs. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take authorized by the attached BOs, whose terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BOs, where a take of the listed species occurs, would constitute an unauthorized take and it would also constitute non-compliance with this Corps permit. The FWS and NMFS are the appropriate authorities to determine compliance with the terms and conditions of their BOs and with the ESA. USACE 404 Both

220 SC 2. The permittee shall adhere to the schedule outlined in the approved "Salt River Ecosystem Restoration project Rare Plant Mitigation and Monitoring Plan", prepared by H.T. Harvey & Associates with Winzler & Kelly dated January 27, 2011. Phase 1 activities target replacement of the existing 1.2 acres of selagrass that would be impacted by establishing 8.7 acres of selagrass habitat on site. USACE 404 Phase I

221 SC 3. The permittee shall provide a mid-term (five years after initial construction or in phase with California Coastal Commission reporting requirements) wetland and other waters of the United States delineation of the Salt River Phase 1 and Phase 2 project sites. The wetland and other waters delineation report shall contain acreage of restored or created wetlands or other waters of the U.S. to date, with data sheets and jurisdictional maps prepared in accordance with the USACE 1987 Federal Wetland Delineation Manual and the Western Mountains, Valleys and Coastal Wetlands Supplement to the Delineation Manual. Photographs of post-construction habitat shall be taken from the same locations periodically over the monitoring period. A final wetland delineation and other waters of the U.S. report shall be prepared and sent to USACE for final field verification at the end of project Adaptive Management activities and Maintenance at the tenth or twelfth year of permit duration. USACE 404 Both

222 SC 4. This permit does not authorize the proposed Upslope Sediment Reduction program at this time as specific activities and geographic locations have not been identified. When specific activities and geographic locations are identified and some or all of these activities would impacts waters of the U.S. in USACE jurisdiction, USACE will consider authorizing these activities on a case-by-case basis under a Letter of Modification under this permit or under a separate general permit (Regional General Permit or Nationwide Permit) USACE 404 Both

223 SC 5. The applicant will notify USACE prior to maintenance activities for Phases 1 and 2 and report excavated volume and location post construction and in accordance with the Salt River Adaptive Management Plan (AMP) prepared by H.T. Harvey & Associates and Winzler & Kelly dated January 2012 The work shall be performed in conformance with the final approved plans, the AMP and Salt River Ecosystem Restoration Project Habitat Mitigation and Monitoring Plan prepared by H.T. Harvey & Associates with Winzler & Kelly last revised January 5, 2012. All four plans are incorporated by reference into this authorization. USACE 404 Both

224 SC 6. Maintenance activities such as sediment removal and channel excavation between Phase 1 construction and prior to Phase 2 construction are not covered under this authorization and require a separate Individual Permit. USACE 404 Both

225 Professional Inspection of Grading Operations shall be provided per Humboldt County Code Section 331-14 H.5 County Grading Both

226 Final Inspection Reports shall be provided per Humboldt County Code Section 331-14 I.1 County Grading Both
Memorandum

January 18, 2014

To: Michael van Hattem, CDFW
Cc: Donna Chambers, Humboldt County RCD
From: Ken Mierzwa, Senior Biologist
Misha Schwarz, Senior Scientist
Tel: 707-443-8326
Reviewed: Jeremy Svehla, Project Manager

Subject: Salt River Ecosystem Restoration Project (Phase 2) Job no.: 10653-10-001
Sensitive Bird Nesting Habitat Protection Plan

1. Purpose

The Sensitive Bird Nesting Habitat Protection Memo dated February 15, 2012 served as the basis for protection of nesting birds during Phase 1 of the Salt River Ecosystem Restoration Project; which was largely focused on the restoration of tidal marsh. This memo is intended to amend the February 2012 memo and provide the basis for avoiding impacts to nesting birds during subsequent construction seasons within Phase 2; which includes the re-habilitation of Salt River channel corridor and floodplain.

This memo outlines measures to avoid impacts to nesting birds during Phase 2 work, including a proactive approach to managing nesting habitat prior to the nesting season within the construction limits. The avoidance measures presented in this memorandum are generally consistent with the intent of the Final Environmental Impact Report, the Coastal Development Permit, Section 3503 of the California Department of Fish and Wildlife (CDFW) Code and the Federal Migratory Bird Treaty Act, and have been developed based on:

- The different site and habitat conditions presented by Phase 1 and Phase 2,
- The constraints on construction sequencing posed by adjacent infrastructure and land use in Phase 2, and
- Discussions with CDFW biologists.

2. Background

The Project consists of two primary construction phases; Riverside Ranch Tidal Wetland Restoration (Phase 1) and the Salt River Channel and Riparian Floodplain Corridor Restoration (Phase 2). Each of these phases offers distinctly different site and habitat conditions, as well as differing opportunities for construction sequencing.
Phase 1 encompasses an area of approximately 400 acres and offers a diverse range of habitats, including; inner-tidal channel, salt marsh, seasonal wetland, riparian, and agricultural grassland habitat. Phase 2 is comprised of a more linear corridor some 200 feet wide and 5 miles long that primarily supports a willow-dominated riparian habitat. The Phase 1 area is generally surrounded by agricultural lands, with some large adjoining contiguous areas of riparian and open water estuarine habitats. The Phase 2 construction footprint is bounded by more typical rural residential and agricultural lands including county roads, infrastructure, housing, and/or active dairy operations for much of its length.

During the 2013 construction season, Phase 1 construction was successfully completed while also avoiding impacts to a wide variety of nesting bird species. This was largely due to the size of the area and the diversity of habitats; which allowed the project to move construction activities from place to place to avoid nesting birds over the course of the nesting season. However, the project also worked closely with its biologist and biologists from CDFW to modify construction activities to conform to the biologist’s recommendations about timing of work and types of equipment used. When necessary, the biologist closely monitored the behavior of the birds during construction. Repeatedly, the birds demonstrated a high tolerance to construction activities and were not found to abandon nests directly adjacent to project activities. These species included ground, scrub-shrub and riparian habitat nesters.

The Phase 2 footprint will be much more confined relative to Phase 1 and must be constructed in a linear sequence. Due to the physical site and sequencing constraints of Phase 2 a proactive approach to avoiding impacts to nesting birds will be important. These avoidance measures have been developed based on field biology experience gained during Phase 1 construction coupled with an understanding of the Phase 2 habitats and necessary construction sequencing.

3. Phase 2 Nesting Habitat Descriptions

Figure 1 provides a typical cross-sectional depiction of the Phase 2 project footprint which is comprised of two distinct areas of potential nesting habitat:

1. Nesting habitat within the construction limits (approximately 200 feet wide), and
2. Nesting habitat in the retained vegetation immediately adjoining the construction limits (an approximate average 20 feet wide).
Figure 1. Typical cross-sectional depiction of the Phase 2 project footprint with proposed nesting surveys in construction limits and adjoining retained contiguous vegetation.

Prior to construction in 2014, vegetation will be removed from the construction limits, which averages approximately 200 feet in width to accommodate the channel excavation and re-planting of diverse riparian habitat species. A band of vegetation (approximately 20 feet in width) will be preserved adjoining the construction limits. The intact vegetation was retained by design to provide some mature riparian cover and habitat while the newly planted vegetation establishes. Assessment and avoidance measures are described below for these two distinct areas.

4. Nesting Habitat Within Construction Limits

As previously stated, construction limits is defined as the area where active ground disturbance associated with channel excavation will occur. The following avoidance measures apply to these areas.

4.1 Pre-Construction Avoidance Measures

To reduce the probability of nesting birds occupying habitat within the construction limits, vegetation will be cleared by mechanical and/or hand methods as conditions allow between August 15 and March 1. After March 1, at the direction of the HCRCD, a qualified biologist will conduct routine habitat assessments of the cleared areas to determine whether regrowth is potentially creating suitable habitat for nesting birds. The habitat assessment is not intended to be a detailed nesting protocol-level survey, but rather presence-absence observations that allows the biologist to provide timely direction for continued vegetation maintenance as a preventative measure to avoid direct impacts to nesting birds.

If the habitat assessment reveals potential nesting habitat, but active nests are not observed, the biologist will advise the contractor/HCRCD to conduct additional vegetation maintenance as described above. Maintenance should occur within 7-days from the date of the assessment,
unless, in the opinion of the biologist a longer time is acceptable. Routine maintenance by hand and light weight mechanical equipment and traditional agricultural practices such as mowing and grazing will occur until commencement of construction.

4.2 Nesting Habitat Survey
Beginning March 1, if during the habitat assessment the qualified biologist identifies an active nest (defined as a nest containing viable eggs, hatchlings, or chicks) of a common, species of special concern, Endangered Species Act (ESA) listed, California Endangered Species Act (CESA) listed, and/or raptor species within the cleared construction footprint, the nest will be avoided and appropriate setbacks specified in Section 6 will be established.

5. Nesting Habitat within Adjoining Retained Vegetation
The construction limits predominantly adjoin either actively managed agricultural pastures, retained vegetation, or developed areas such as dairy facilities, roads, and rural residential dwellings. The avoidance measures specified below apply to the retained riparian habitat directly adjoining the construction limits.

5.1 Avoidance Measures
During the vegetation maintenance within the construction limits and prior to excavation activities, surveys will not be conducted in the adjoining riparian habitat due to the infrequent and minimal ground/noise disturbance associated with the previously specified vegetation maintenance activities.

Within 7-days prior to commencement of excavation activities within the construction limits, the retained vegetation directly adjoining the construction limits will be surveyed for active nesting ESA listed, CESA listed, and/or raptor species. If habitat density prevents the use of standard audible and visual detection techniques, the use of audible calling may be utilized at the discretion of the biologist but is not anticipated to be necessary.

During Phase 1 construction, common nesting species consistently demonstrated a high tolerance to close proximity construction activities. The project biologist monitored work occurring within buffers and observed that construction activities within a buffer of much less than 100 feet did not negatively impact nesting behavior. Based on this, and based on the unique constrained project footprint being approximately 200 feet-wide with a narrow band of average 20 feet of retained vegetation, surveys for common migratory birds in adjoining retained riparian vegetation are not proposed between March 1 and August 15 during excavation activities. If construction activities require a direct impact to adjoining riparian vegetation between March 1 and August 15, then surveys for common, species of special concern, ESA listed, CESA listed, and/or raptor species shall first be conducted in those areas.

6. Avoidance Setbacks
In accordance to section 1 and 2 above, the following setbacks shall be flagged and avoided if an active nest is observed. An active nest is defined as a nest that in the opinion of the biologist contains viable eggs, hatchlings, and/or chicks. Avoidance setbacks apply only to construction activities within the project
footprint as depicted in Figure 1 and do not extend beyond the project footprint on to adjacent roads or private land.

<table>
<thead>
<tr>
<th>Species</th>
<th>Avoidance Setback (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common and Species of Special Concern</td>
<td>Minimum of 3</td>
</tr>
<tr>
<td>Sensitive (ESA/CESA listed)</td>
<td>300</td>
</tr>
<tr>
<td>Raptor</td>
<td>500</td>
</tr>
</tbody>
</table>

Avoidance setbacks may be modified by the project biologist, after consultation with CDFW and based upon site-specific factors, for example: different species may be more or less sensitive to disturbance, and the type and duration of impact may also influence the amount of buffer needed.

7. Survey Methods

Surveys and survey results will be focused on those areas directly under the Project’s control. Surveys are not intended to be conducted, and avoidance measures are not proposed to be implemented, on areas and activities immediately adjoining the construction limits and not under the Project’s control. This includes such things as vehicle use of existing roads, and standard agricultural activities such as grazing, haying, and mowing on adjacent private land.

Surveys are intended to identify confirmed or probable nesting activity, based on the professional judgment of the project biologist. Where the habitat being surveyed allows the surveyor to walk through without risk of damaging nests and surrounding vegetation, then the survey may include a physical search of the area in addition to behavioral observations. Where habitat is dense or otherwise impenetrable it may be possible to infer the locations of nests through behavioral observations of adult birds from the edge of the habitat. For example, singing positions of parent males can be mapped to determine the general nesting area and this can be further refined with additional behavioral observations. Survey methods will generally follow methods outlined in Ralph et al (1993). Protocol-level surveys are not necessary based on direct field experience in Phase 1. Previous protocol-level surveys performed during Phase 1 construction using audio broadcasting may have actively elicited breeding call responses and drew unconfirmed individuals into the broadcast area in search of mates. Locations of nests or nesting behavior will be flagged and either mapped in the field or GPS’d depending on the nest location. In order to locate nesting birds a combination of strategies will be utilized. Specific strategies will depend primarily on two factors – timing and habitat characteristics.

8. Survey Timing

A qualified biologist shall conduct the assessments during the nest-building stage for most species, as this is the earliest time of the nesting season and when nesting birds are relatively conspicuous. During this stage the surveyor can watch for birds carrying nest material and track them to their nests. If the biologist determines the nest is inactive, the biologist may choose to remove the nest, thereby reducing the likelihood the nest progresses to an active status and becomes vulnerable to construction related
impacts. If the nest is active it may be monitored if and until completion (fledging) date can be projected with a reasonably high level of accuracy. During the egg-laying and incubation stages nesting birds are less conspicuous, making nest finding more difficult, requiring different strategies. Subtle behavioral cues (e.g., specific call types) are particularly helpful during these stages. Surveys conducted during the nestling stage make it relatively easy to find nests as both parents actively feed young and can be observed carrying food throughout the day.

9. Mapping

As surveys are completed, locations of nests will be identified and mapped. The map will identify the observations by category. The maps are intended to be working maps that will be utilized by the construction manager throughout the construction season and will be periodically updated as the nesting season progresses. The initial and final nesting bird maps and a brief written commentary describing the results will be provided to CDFW and the California Coastal Commission.

10. Deliverables

A map of confirmed nests and probable nesting areas (based on bird behavioral observations) would be provided to CDFW and California Coastal Commission for review and approval prior to the start of construction, and will include a brief written summary describing results. At the end of the construction season, the map and written summary would be updated with results of follow-up surveys.

11. Allowable Construction Preparation and Agricultural Activities

The following activities may occur within or immediately adjoining the construction limits and do not require advance nesting surveys if in the opinion of the biologist these activities do not significantly disturb potential or existing nesting habitat during the nesting season:

- construction equipment use of construction ingress/egress corridors,
- construction survey staking,
- construction preparatory activities such as fence removal/placement and erosion/sediment control BMP placement,
- cofferdam and diversion bypass piping placement,
- construction entrance/staging area placement,
- sediment stockpile and reuse on agricultural lands, and
- limited riparian thinning to accommodate any of the above activities.

12. Literature Cited