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DIVISION OF ENGINEERING SERVICES
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July 31, 2009

04-Son-128-R27.8, R34.7/R35.4
04-4A8704
ACSTP-ACBRSTP-P128(044)E

Addendum No 1

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in SONOMA COUNTY AT AND NEAR KELLOGG AT MAACAMA CREEK BRIDGE AND FROM 0.3 KM WEST TO 0.4 KM EAST OF REDWOOD CREEK BRIDGE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Wednesday, August 12, 2009.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions, the Federal Minimum Wages with Modification Number 34 dated 07/31/2009, and provide a copy of the Supplemental Information Handout.

Project Plan Sheets 5, 7, 8 and 9 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 5-1.07, "SUPPLEMENTAL PROJECT INFORMATION," the following is added in the table to the list of items to be included in the Information Handout:

"16. Underground Classifications"

In the Special Provisions, Section 5-1.14, "ENVIRONMENTALLY SENSITIVE AREA," is replaced as attached.

In the Special Provisions, Section 5-1.15, "ARCHAEOLOGICAL MONITORING AREA," is added as attached.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the following paragraph is added after the third paragraph:

> "Attention is directed to Section 7-1.06, "Safety and Health Provisions," of the Standard Specifications. Work practices and worker health and safety shall conform to the California Division of Occupational Safety and Health Construction Safety Orders Title 8, of the California Code of Regulations including Section 5158, "Other Confined Space Operations" and to the Underground Classifications C268-045-09T and C269-045-09T of the Supplemental Information Handout."

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In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL," is replaced as attached.

In the Special Provisions, Section 10-1.04, "TEMPORARY ACTIVE TREATMENT SYSTEM," is replaced as attached.

In the Special Provisions, Section 10-1.175, "COOPERATION," is added as attached.

To Proposal and Contract book holders:

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the NOTICE TO CONTRACTORS section of the Notice to Contractors and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by DHL overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Division of Engineering Services - Office Engineer

Attachments

5-1.14 ENVIRONMENTALLY SENSITIVE AREA

An Environmentally Sensitive Area (ESA) exists on this project. The boundaries shown are approximate; the Department's Archaeologist and/or Biologist marks the exact boundaries on the ground.

Before start of work, protect the ESA by installing temporary fence (Type ESA) or temporary reinforced silt fence (Type 1).

Do not enter the ESA unless authorized. If the ESA is breached, immediately; secure the area and stop all operations within 10 meters of the ESA boundary and notify the Engineer. If the ESA is damaged, the Engineer in consultation with the Department's Archaeologist and/or Biologist determines what efforts are necessary to remedy the damage and who performs the remedy; you are responsible for remedies and charges.

5-1.15 ARCHAEOLOGICAL MONITORING AREA

Archaeological Monitoring Areas (AMAs) within, near, or straddling the project limits are shown on the plans. The Department assigns an archaeological monitor to monitor job site activities within the AMA. Do not work within the AMA unless the archeological monitor is present.

The Engineer and the Department archaeological monitor conduct an AMA location field review with you at least 5 business days before start of work. The archaeological monitor marks the exact boundaries of the AMA on the ground.

At least 5 business days before starting work within an AMA, submit a schedule of days and hours to be worked for the Engineer's approval. If you require changes in the schedule, submit an update for the Engineer's approval at least 5 business days before any changed work day.

If archaeological resources are discovered at the job site, do not disturb the resources and immediately:

1. Stop all work within a 10 meter radius of the discovery
2. Protect the discovery area
3. Notify the Engineer

The Department investigates. Do not take archaeological resources from the job site. Do not resume work within the discovery area until authorized.

If, in the opinion of the Engineer, completion of the work is delayed or interfered with by reason of an archaeological find, or investigation or recovery of archeological materials, you will be compensated for resulting losses, and an extension of time will be granted, in the same manner as provided for in Section 8-1.09, "Right of Way Delays."

If ordered, furnish resources to assist in the investigation or recovery of archaeological resources. This work will be paid for as extra work as specified in Section 4-1.03D, "Extra Work."

AMAs

AMA Designation and Description	Limits
100 meters right and left of "B" Line.	from STA "B" 60+22 to 66+00

10-1.02 WATER POLLUTION CONTROL

GENERAL

Water pollution control work shall conform to the provisions in Section 7-1.01G, "Water Pollution," of the Standard Specifications, section of these special provisions entitled "Relations With California Regional Water Quality Control Board," and these special provisions.

The Contractor may obtain other National Pollutant Discharge Elimination System (NPDES) permits that apply to activities and mobile operations within or outside of the project limits including hot mix asphalt batch plants, material borrow areas, concrete plants, staging areas, storage yards, or access roads.

The Contractor shall perform water pollution control work in conformance with the requirements in the "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual" and its addenda in effect on the day the Notice to Contractors is dated. This manual is referred to as the "Preparation Manual." Copies of the Preparation Manual may be obtained from:

State of California
Department of Transportation
Publication Distribution Unit
1900 Royal Oaks Drive
Sacramento, California 95815
Telephone: (916) 445-3520

The Preparation Manual and other references for performing water pollution control work are available from the Department's Construction Storm Water and Water Pollution Control web site at:

http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm

Before the start of job site activities, the Contractor shall provide training for project managers, supervisory personnel, and employees involved with water pollution control work. The training shall include:

A. Rules and regulations
B. Implementation and maintenance for:

    1. Temporary Soil Stabilization
    2. Temporary Sediment Control
    3. Tracking Control
    4. Wind Erosion Control

The Contractor shall designate in writing a Water Pollution Control Manager (WPCM). The Contractor shall submit a statement of qualifications describing the training, work history, and expertise of the proposed WPCM. The qualifications shall include either:

A. A minimum of 24 hours of Department approved storm water management training described at Department's Construction Storm Water and Water Pollution Control web site.
B. Certification as a Certified Professional in Erosion and Sediment Control (CPESC).

The WPCM shall be:

A. Responsible for water pollution control work.
B. The primary contact for water pollution control work.
C. Have authority to mobilize crews to make immediate repairs to water pollution control practices.

The Contractor may designate one manager to prepare the SWPPP and a different manager to implement the plan. The WPCP preparer shall meet the training requirements for the WPCM.

STORM WATER POLLUTION PREVENTION PLAN

The Contractor shall submit a Storm Water Pollution Prevention Plan (SWPPP) to the Engineer for approval. The SWPPP shall conform to the requirements in the Preparation Manual, the NPDES permit, and these special provisions. The SWPPP shall be submitted in place of the water pollution control program required by the provisions in Section 7-1.01G, "Water Pollution," of the Standard Specifications.

The SWPPP shall include water pollution control practices:

A. For storm water and non-storm water from areas outside of the job site related to construction activities for this contract such as:

   1. Staging areas.
   2. Storage yards.
   3. Access roads.

B. Appropriate for each season as described in "Implementation Requirements" of these special provisions.
C. For activities or mobile operations related to all NPDES permits.

The SWPPP shall include a schedule that:

A. Describes when work activities that could cause water pollution will be performed.
B. Identifies soil stabilization and sediment control practices for disturbed soil area.
C. Includes dates when these practices will be 25, 50, and 100 percent complete.
D. Shows 100 percent completion of these practices before the rainy season.

The SWPPP shall include the following temporary water pollution control practices and their associated contract items of work as shown on the plans or specified in these special provisions:

A. Temporary Soil Stabilization

   1. Temporary cover
   2. Temporary hydraulic mulch (bonded fiber matrix)

B. Temporary Sediment Control

   1. Temporary silt fence
   2. Temporary reinforced silt fence (Type 1)
   3. Temporary check dam
   4. Temporary drainage inlet protection
   5. Street sweeping

C. Tracking Control

   1. Temporary construction entrance
   2. Temporary construction roadway

D. Non-Storm Water Management

   1. Construction site management

E. Waste Management and Materials Pollution Control

   1. Temporary concrete washout bin
   2. Construction site management

The SWPPP shall include the following contract items of work for permanent water pollution control as shown on the plans or as specified in these special provisions:

A. Erosion control (Type D)
B. Compost, incorporate
C. Fiber rolls
D. Erosion control (netting)

Within 20 days after contract approval, the Contractor shall submit 3 copies of the SWPPP to the Engineer. The Contractor shall allow 20 days for the Engineer's review. If revisions are required, the Engineer will provide comments and specify the date that the review stopped. The Contractor shall revise and resubmit the SWPPP within 15 days of receipt of the Engineer's comments. The Engineer's review will resume when the complete SWPPP is resubmitted. When the Engineer approves the SWPPP, the Contractor shall submit 4 copies of the approved SWPPP to the Engineer. After approval, the Engineer will submit one copy of the approved SWPPP to the North Coast RWQCB for their review and comment. If the North Coast RWQCB provides comments to the SWPPP, the Contractor shall amend the SWPPP. Construction activities shall begin no sooner than 30 days after the Engineer approves the SWPPP. If the Engineer fails to complete the review within the time allowed and if, in the opinion of the Engineer, completion of the work is delayed or interfered with because of the Engineer's or the RWQCB's review, the Contractor will be compensated for resulting losses, and an extension of time will be granted, as provided for in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

The SWPPP shall include a copy of the Notification of Construction, Fish and Game permit, US Army Corps of Engineers 404 permit, California RWQCB Section 401 Water Quality Certification.

The Contractor shall not perform work that may cause water pollution until the SWPPP has been approved by the Engineer. The Engineer's review and approval shall not waive any contract requirements and shall not relieve the Contractor from complying with Federal, State and local laws, regulations, and requirements.

The Contractor shall amend the SWPPP annually and shall resubmit it to the Engineer 25 days before the defined rainy season.

If there is a change in construction schedule or activities, the Contractor shall prepare an amendment to the SWPPP to identify additional or revised water pollution control practices. The Contractor shall submit the amendment to the Engineer for review within a time agreed to by the Engineer not to exceed the number of days specified for the initial submittal of the SWPPP. The Engineer will review the amendment within the same time allotted for the review of the initial submittal of the SWPPP.

If directed by the Engineer or requested in writing by the Contractor and approved by the Engineer, changes to the water pollution control work specified in these special provisions will be allowed. Changes may include addition of new water pollution control practices. The Contractor shall incorporate these changes in the SWPPP. Additional water pollution control work will be paid for as extra work in accordance with Section 4-1.03D, "Extra Work," of the Standard Specifications.

The Contractor shall keep a copy of the approved SWPPP at the job site. The SWPPP shall be made available when requested by a representative of the Regional Water Quality Control Board, State Water Resources Control Board, United States Environmental Protection Agency, or the local storm water management agency. Requests from the public shall be directed to the Engineer.

SAMPLING AND ANALYSIS

The Contractor shall include a Sampling and Analysis Plan (SAP) in the SWPPP to monitor the effectiveness of the water pollution control practices. The Contractor shall prepare the SAP in conformance with the Preparation Manual.

The Contractor shall designate trained personnel to collect water quality samples. The personnel and training shall be documented in the SAP. Training shall consist of the following elements:

A. SAP review,
B. Health and safety review, and
C. Sampling simulations.

In the SAP the Contractor shall describe the following water quality sampling procedures:

A. Sampling preparation,
B. Collection,
C. Quality assurance and quality control,
D. Sample labeling,
E. Collection documentation,
F. Sample shipping,
G. Chain of custody,
H. Sample numbering, and
I. Precautions from the construction site health and safety plan.

The Contractor shall document sample collection during precipitation.

Samples to be analyzed in the field shall be taken by the Contractor's designated sampling personnel using collection and analysis methods, and equipment calibration specified by the manufacturer of the sampling equipment. Samples to be analyzed by a laboratory, shall be sampled, preserved, and analyzed by a State-certified laboratory in conformance with the requirements in 40 CFR Part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants." The Contractor shall identify the State-certified laboratory, sample containers, preservation requirements, holding times, and analysis method in the SAP. A list of State-certified laboratories that are approved by the Department is available at:

http://www.dhs.ca.gov/ps/ls/ELAP/html/lablist.htm

Pollutants of Concern

This project discharges directly into Redwood Creek and Maacama Creek.

The Contractor shall describe in the SAP the schedule and strategy for monitoring pollutants of concern in these bodies of water. These include collecting samples and analyzing for:

A. Turbidity under EPA Test Method 180.1B. Settleable solids under EPA Test Method 160.5
C. Total suspended solids (TSS) under EPA Test Method 160.2; or for suspended sediment concentration under ASTM Designation: D 3977
D. Measurement for pH

The SAP shall include all water quality sampling and testing requirements specified in the Regional Water Quality Control Board 401 Certification.

The Contractor shall develop the SAP schedule so that water quality samples are taken within 2 hours of discharge from precipitation during daylight hours (sunrise to sunset), regardless of the time of year, day of the week, or condition of the construction site. If precipitation occurs again after at least 72 hours of dry weather the Contractor shall take new samples, however, sampling will not be required more than 4 times in 30 days.

In the SAP the Contractor shall identify the locations where runoff sources on the construction site discharge directly into the listed body of water, and the locations where water flows onto the project with the potential to combine with runoff that discharges directly into the listed body of water. These locations shall also be shown on the SWPPP Water Pollution Control Drawings.

The Contractor shall identify locations for collecting water quality samples and the reason for their selection. Sampling locations shall also be shown on the SWPPP Water Pollution Control Drawings. The sampling locations shall include:

A. Within 15 meters upstream of the discharge point. If other construction activity is being performed, measure at least 45 meters upstream of the discharge point,
B. Within 30.48 meters downstream of the discharge point, and
C. Immediately downhill from the locations where water flows onto the right of way.

The receiving water limitations for Redwood Creek and Maacama Creek are exceeded when:

A. Turbidity measurements are 20% or more above background
B. Measurements for pH are outside of the 6.5-8.5 range at a point 30.48 meters or more downstream of the discharge point

If receiving water limitations are exceeded, then:

A. Measure the distance from the discharge point to the downstream extent of the increased turbidity, pH, or both
B. Photograph the receiving waters upstream, downstream, and within working and disturbed areas

Non-Visible Pollutants

This project has the potential to discharge non-visible pollutants in storm water from the construction site. The Contractor shall include in the SAP a description of the sampling and analysis strategy to be implemented on the project for monitoring non-visible pollutants.

In the SAP the Contractor shall identify potential non-visible pollutants that will be present on the construction site associated with the following:

A. Construction materials and wastes;
B. Existing contamination due to historical site usage; or
C. Application of soil amendments, including soil stabilization products, with the potential to alter pH or contribute toxic pollutants to storm water.

The Contractor shall show the locations planned for storage and use of the potential non-visible pollutants on the SWPPP Water Pollution Control Drawings.

The Contractor shall include in the SAP the following list of conditions that require sampling when observed during a storm water inspection:

A. Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions.
B. Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but:

    1. A breach, leakage, malfunction, or spill is observed;
    2. The leak or spill has not been cleaned up before precipitation; and
    3. There is the potential for discharge of non-visible pollutants to surface waters or drainage system.

C. Construction activities; such as application of fertilizer, pesticide, herbicide, methyl methacrylate concrete sealant, or non-pigmented curing compound; have occurred during precipitation or within 24 hours preceding precipitation, and have the potential to discharge pollutants to surface waters or drainage system.
D. Soil amendments, including soil stabilization products, with the potential to alter pH levels or contribute toxic pollutants to storm water runoff have been applied, and have the potential to discharge pollutants to surface waters or drainage system (unless independent test data are available that demonstrate acceptable concentrations of non-visible pollutants in the soil amendment).
E. Storm water runoff from an area contaminated by historical usage of the site has the potential to discharge pollutants to surface waters or drainage system.

The Contractor shall describe in the SAP the schedule for collecting a sample downhill from each non-visible pollutant source and an uncontaminated control sample, during the first 2 hours of discharge from precipitation during daylight hours that result in enough discharge for sample collection. If discharge flows to the non-visible pollutant source, a sample shall be collected immediately downhill from where the discharge enters the Department's right of way. If precipitation occurs again after at least 72 hours of dry weather the Contractor shall take new samples.

In the SAP the Contractor shall identify sampling locations for collecting downstream and control samples, and the reason for their selection. The control sampling location shall be selected so the sample does not come into contact with materials, wastes or areas associated with potential non-visible pollutants or disturbed soil areas. The Contractor shall show non-visible pollutant sampling locations on the SWPPP Water Pollution Control Drawings.

The Contractor shall identify in the SAP the analytical method to be used for downhill and control samples for potential non-visible pollutants on the project.

Analytical Results and Evaluation

The Contractor shall submit a hard copy and electronic copy of water quality analytical results, and quality assurance and quality control data to the Engineer within 5 days of sampling for field analyses, and within 30 days for laboratory analyses. The Contractor shall also provide an evaluation of whether the downhill samples show levels of the tested parameter higher than in the control sample. If downhill or downstream samples show increased levels, the Contractor will assess the water pollution control measures, site conditions, and surrounding influences to determine the probable cause for the increase. As determined by the assessment, the Contractor will repair or modify water pollution control measures to address increases and amend the SWPPP as necessary. Electronic results (in one of the following file formats: .xls, .txt, .csv, .dbs, or .mdb) shall have the following information:

A. Sample identification number.
B. Contract number.
C. Constituent.
D. Reported value.
E. Analytical method.
F. Method detection limit.
G. Reported limit.

The Contractor shall maintain the water quality sampling documentation and analytical results with the SWPPP on the project site.

Calibration logs for all field monitoring equipment shall be maintained and be available to the Engineer for RWQCB upon request.

If construction activities or knowledge of site conditions change such that discharges or sampling locations change, the Contractor shall amend the SAP in conformance with this section, "Water Pollution Control."

IMPLEMENTATION REQUIREMENTS

The Contractor's responsibility for SWPPP implementation shall continue throughout any temporary suspension of work ordered in conformance with the provisions in Section 8-1.05, "Temporary Suspension of Work," of the Standard Specifications.

If the Contractor or the Engineer identifies a deficiency in the implementation of the approved SWPPP, the deficiency shall be corrected immediately, unless an agreed date for correction is approved in writing by the Engineer. The deficiency shall be corrected before the onset of precipitation. If the Contractor fails to correct the deficiency by the agreed date or before the onset of precipitation, the Department may correct the deficiency and deduct the cost of correcting deficiencies from payments.

If the Contractor fails to conform to the provisions of this section, "Water Pollution Control," the Engineer may order the suspension of work until the project complies with the requirements of this section.

Year-Round

The Contractor shall monitor the National Weather Service weather forecast on a daily basis during the contract. The Contractor may use an alternative weather forecasting service if approved by the Engineer. Appropriate water pollution control practices shall be in place before precipitation.

The Contractor may discontinue earthwork operations for a disturbed area for up to 21 days and the disturbed soil area will still be considered active. When earthwork operations in the disturbed area have been completed, the Contractor shall implement appropriate water pollution control practices within 15 days, or before predicted precipitation, whichever occurs first.

Rainy Season

The Contractor shall provide soil stabilization and sediment control practices during the rainy season between October 15 and April 15.

The Contractor shall implement soil stabilization and sediment control practices a minimum of 10 days before the start of the rainy season.

During the defined rainy season, the active disturbed soil area of the project site shall be not more than 2.0 hectares. The Engineer may approve expansions of the active disturbed soil area limit if requested in writing. The Contractor shall maintain soil stabilization and sediment control materials on site to protect disturbed soil areas.

INSPECTION AND MAINTENANCE

The WPCM shall inspect the water pollution control practices identified in the SWPPP as follows:

A. Before a forecasted storm,
B. After precipitation that causes site runoff,
C. At 24-hour intervals during extended precipitation,
D. On a predetermined schedule, a minimum of once every 2 weeks outside of the defined rainy season, and
E. On a predetermined schedule, a minimum of once a week during the defined rainy season.

The WPCM shall oversee the maintenance of the water pollution control practices.

The WPCM shall use the Storm Water Quality Construction Site Inspection Checklist provided in the Preparation Manual or an alternative inspection checklist provided by the Engineer. A copy of the completed site inspection checklist shall be submitted to the Engineer within 24 hours of finishing the inspection.

REPORTING REQUIREMENTS

If the Contractor identifies discharges into surface waters or drainage systems causing or potentially causing pollution, or if the project receives a written notice or order from a regulatory agency, the Contractor shall immediately inform the Engineer. The Contractor shall submit a written report to the Engineer within 7 days of the discharge, notice or order. The report shall include the following information:

A. The date, time, location, and nature of the operation, type of discharge and quantity, and the cause of the notice or order.
B. The water pollution control practices used before the discharge, or before receiving the notice or order.
C. The date of placement and type of additional or altered water pollution control practices placed after the discharge, or after receiving the notice or order.
D. A maintenance schedule for affected water pollution control practices.

Submit Monthly Monitoring Reports to the Engineer by the 5th day of the month for review and submittal to the RWQCB by the 15th day of the month. Monthly Monitoring Reports shall include:

A. Summary of discharges
B. Summary of corrective actions taken
C. Field sampling measurements and results
D. Upcoming construction schedules and disturbed soil area updates
E. Proposed amendments to the SWPPP based on upcoming construction activities
F. Photographs documenting effective soil stabilization and sediment control BMPs

If there is an exceedance of receiving water limitations for Redwood Creek, Maacama Creek or both then:

A. Notify the Engineer within one hour
B. Submit documentation including photographs within 12 hours

Annual Certifications

By June 15 of each year, the Contractor shall complete and submit to the Engineer an Annual Certification of Compliance, as contained in the Preparation Manual.

PAYMENT

During each estimate period the Contractor fails to conform to the provisions in this section, "Water Pollution Control," or fails to implement the water pollution control practices shown on the plans or specified elsewhere in these special provisions as items of work, the Department will withhold 25 percent of the progress payment.

Withholds for failure to perform water pollution control work will be in addition to all other withholds provided for in the contract. The Department will return performance-failure withholds in the progress payment following the correction of noncompliance.

The contract lump sum price paid for prepare storm water pollution prevention plan shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing, obtaining approval of, and amending the SWPPP and inspecting water pollution control practices as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Payments for prepare storm water pollution prevention plan will be made as follows:

A. After the SWPPP has been approved by the Engineer, 50 percent of the contract item price for prepare storm water pollution prevention plan will be included in the monthly progress estimate.
B. Forty percent of the contract item price for prepare storm water pollution prevention plan will be paid over the life of the contract.
C. After acceptance of the contract in conformance with the provisions in Section 7-1.17, "Acceptance of Contract," of the Standard Specifications, payment for the remaining 10 percent of the contract item price for prepare storm water pollution prevention plan will be made in conformance with the provisions in Section 9-1.07A, "Payment Prior to Proposed Final Estimate."

Storm water sampling and analysis will be paid for as extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications. No payment will be made for the preparation, collection, analysis, and reporting of storm water samples where appropriate water pollution control practices are not implemented before precipitation or if a failure of a water pollution control practice is not corrected before precipitation.

Implementation of water pollution control practices in areas outside the highway right of way not specifically provided for in the SWPPP or in these special provisions will not be paid for.

Water pollution control practices for which there are separate contract items of work will be measured and paid for as those contract items of work.

10-1.04 TEMPORARY ACTIVE TREATMENT SYSTEM

GENERAL

Summary

This work includes designing, placing, operating, monitoring, maintaining, and later removing a temporary active treatment system. The active treatment system must be used to remove sediment, turbidity, and other pollutants from uncontaminated groundwater, stormwater, or both and then discharge the treated water.

The SWPPP must describe and include the use of temporary active treatment system as a water pollution control practice for non-stormwater management and materials pollution control.

For information on documents under these special provisions, refer to the Department's "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual" (Preparation Manual) and "Field Guide to Construction Site Dewatering" (Dewatering Guide).

The Preparation Manual and Dewatering Guide are available from the Department's Construction Storm Water and Water Pollution Control web site at:

http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm

Groundwater discharges that are reused on-site, or discharged to the storm drain system shall be performed in conformance with the general waste discharge requirements for Order No. 93-61, NPDES General Permit No. CA0024902, issued by the North Coast Regional Water Quality Control Board (NCRWQCB) for "Discharges of Groundwater to Surface Water Related to Construction and Subsurface Seepage Dewatering Activities in the North Coast Region." This permit is hereafter referred to as "Order No 93-61" in this section, and is available by searching under "93-61" for Order Number at:

http://water100.waterboards.ca.gov/rb1/adopted_orders/

Non-Stormwater Information Package (Information Package) for this project is available as described in "Supplemental Project Information" of these special provisions. This Information Package includes the following:

1. Estimated groundwater seepage rates in the project area
2. Information on the Publicly Owned Treatment Works (POTW) facility
3. Order No. 93-61

If you do not use an active treatment system, discharge into a POTW system. If uncontaminated groundwater, stormwater, or both are discharged to a POTW, obtain a municipal batch discharge permit. You are responsible for all costs and requirements related to obtaining the municipal batch discharge permit and discharging the water.

Submittals

At least 70 days before dewatering activities start, submit:

1. Dewatering and discharge plan (DDP) that includes:

    1.1. Title sheet
    1.2. Table of contents
    1.3. Certification and approval sheet (Section 100 of the Preparation Manual)
    1.4. Amendment log and format (Section 200 of the Preparation Manual)
    1.5. Description and schedule of the dewatering and discharge operations
    1.6. Discharge alternatives, including:

        1.6.1. Reuse of treated water for construction activities such as dust control, irrigation, fill compaction, or concrete batch plant
        1.6.2. Percolation
        1.6.3. Storm sewers
        1.6.4. Surface waters

1.7. Treatment system description and components
1.8. Anticipated flow rates
1.9. Operation and system maintenance procedures and example maintenance log
1.10. Field-recorded data, visual inspection, and calibration procedures and example logs
1.11. Measuring equipment descriptions
1.12. Working drawings for dewatering and discharge operations showing:

1.12.1. Section and plan views of storm water effluent treatment systems
1.12.2. Location of sampling points for water quality measurements
1.12.3. Flow path and placement of pipes, hoses, pumps, holding tanks, and other equipment used to convey water
1.12.4. General position of treatment dewatering and discharge components relative to excavations or other operations requiring dewatering
1.12.5. Point of storm water discharge

2. Daily Inspection Report. The report form must:

2.1. Be approved by the Engineer before use
2.2. Include discharge volumes
2.3. Include water quality monitoring records
2.4. Include discharge point information for:

2.4.1. Date and time
2.4.2. Weather conditions including wind direction and velocity
2.4.3. Presence or absence of water fowl or aquatic wildlife
2.4.4. Color and clarity of the effluent discharge
2.4.5. Erosion or ponding downstream of the discharge site
2.4.6. Photographs labeled with the time, date, and location

3. POTW municipal batch discharge permit, if used

3.1. If you obtain coverage under the Order No. 93-61, include:

3.1.1. Copy of Permit (Order No. 93-61)
3.1.2. Notice of Intent (NOI)

4. If you use chemical coagulants, in-line flocculants, or both, in the treatment system, submit a Coagulant Prevention Plan (CPP) with the DDP. The CPP must include:

4.1. Description of the best management practices (BMPs) to prevent accidental spillage, overfeeding into the treatment system, or other mishandling of coagulant agents
4.2. Monitoring plan for all coagulant or flocculant agents to be used
4.3. Description of the agent (chemical and trade name description)
4.4. Determination of acute and chronic toxicity for aquatic organisms conforming to EPA methods for the agents
4.5. Monitoring proposal to detect residual agent at concentrations at or below established acute toxicity levels for freshwater and marine conditions for that agent
4.6. Copy of the documentation showing RWQCB approval of the CPP and approval of the chemical coagulants or in-line flocculants proposed

The CPP must be approved by the RWQCB. It is your responsibility to obtain approval of the CPP from the RWQCB. If the RWQCB does not approve your proposal to use chemical coagulants or in-line flocculants, you must propose an alternative treatment system component to comply with the receiving water and effluent discharge limitations.

Within 15 days after contract approval, submit 3 copies of the DDP. Allow 15 days for the Engineer's review. If revisions are required, the Engineer provides comments and specifies the date that the review stopped. Revise and resubmit the DDP within 7 days of receipt of the Engineer's comments. The Engineer's review resumes when the complete DDP is resubmitted. When the Engineer approves the DDP, submit 4 copies of the approved DDP to the Engineer. After approval, the Engineer submits a copy of the approved DDP to the North Coast Regional Water Quality Control Board (RWQCB) for their review and comment. If the RWQCB provides comments to the DDP, amend the DDP. Construction activities must start no sooner than 30 days after the Engineer approves the DDP. If the Engineer fails to complete the review within the time allowed and if, in the opinion of the Engineer, completion of the work is delayed or interfered with because of the Engineer's or the RWQCB's review, you will be compensated for resulting losses, and an extension of time will be granted, under Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

Quality Control and Assurance

Retain and submit records of temporary active treatment system including:

1. Delivery and removal of temporary active treatment system components.
2. Daily inspection report that includes all information and recorded data collected. This report must be certified as true and accurate and signed by those who gather the information.

MATERIALS

Active Treatment System

Design and implement an appropriate active water treatment system for the site conditions and anticipated flow rate. The active treatment system must include:

1. Treatment system
2. Collection and conveyance system
3. Discharge method

Treatment System

The treatment system must be capable of removing sediment and turbidity-producing suspended solids. Primary and secondary treatment may be required, or the design of the treatment system may require combined use of the various treatment components in series to achieve effective treatment. Treatment system must have components to:

1. Remove sediment and turbidity-producing suspended solids such as:

    1.1. Desilting basins
    1.2. Settling tanks
    1.3. Sediment traps
    1.4. Gravity bag filters
    1.5. Sand media filters
    1.6. Pressurized bag filters
    1.7. Cartridge filters
    1.8. Chemical coagulants including in-line flocculants
    1.9. Temporary holding tanks
    1.10. Any combination of these systems to provide primary and secondary treatment

2. Adjust pH or dissolved oxygen by:

    2.1. Addition of sulfuric, phosphoric, citric, or nitric acid in conformance with the supplier's specifications for treatment of water with high pH
    2.2. Filtration through a limestone bed or addition of sodium hydroxide for treatment of water with low pH
    2.3. Aeration for treatment of water with low dissolved oxygen

Collection and Conveyance System

Provide pumps and piping to convey the water from the point of dewatering to the treatment system and to the point of discharge. Pumps and piping must comply with Section 74-2, "Drainage Pump Equipment," of the Standard Specifications.

Use a flow meter to measure all discharges from dewatering operations.

Discharge Method

Provide a method for discharging treated water and include a discharge location. Do not discharge treated water in a way that impacts natural bedding or aquatic life.

Discharge treated water:

1. For dust control in active work areas.
2. To land where the grade allows sheet flow and the soil allows infiltration.
3. In a way that does not cause erosion or scour. If scour occurs, repair the damage and install a velocity dissipater.

CONSTRUCTION

Placement

Place active treatment system components at the job site:

1. Before dewatering work
2. In the immediate area of the dewatering work as approved by the Engineer
3. Away from construction traffic or public access areas

Operation

Divert stormwater away from excavations that would require dewatering.

Water quality limits must comply with the receiving water limitations monitoring and discharge effluent limitations monitoring requirements under section titled "Monitoring" of these special provisions. If observations and measurements confirm the water quality limits are exceeded:

1. Stop the discharge immediately
2. Notify the Engineer
3. Start corrective measures to modify, repair, or replace the equipment used to discharge treated water

After the Engineer inspects and accepts corrective measures:

1. Resume dewatering and discharge operations
2. Start startup-phase sampling requirements before regular-phase sampling requirements
3. Start regular-phase sampling requirements

Relocate active treatment system as needed for dewatering work.

Monitoring

Comply with the manufacturer's instructions for all calibrations of the flow meter. Perform calibrations in the presence of the Engineer.

While the active treatment system is operated, perform:

1. Flow rate monitoring to:

    1.1. Record daily discharge volumes
    1.2. Compute average daily volumes

2. Receiving water limitations monitoring. In the receiving storm water drainage system, the discharge must not cause:

    2.1. Downstream turbidity to increase to more than 50 Nephelometric Turbidity Units (NTU) if the natural background turbidity is less than 50 NTU
    2.2. Downstream turbidity to increase more than 10 percent above the natural background turbidity if the natural background turbidity is 50 NTU or greater
    2.3. Normal ambient temperature to be altered more than 5 degrees F
    2.4. Normal ambient pH to fall below 6.5, exceed 8.5, or change more than 0.5 units
    2.5. Dissolved oxygen concentration to fall below 5.0 mg/L

3. Discharge effluent limitations monitoring. The water to be discharged (effluent) must comply with the following:

   3.1. Discharged water turbidity must not be greater than 50 Nephelometric Turbidity Units (NTU)
   3.2. pH of the discharged water must be from 6.5 to 8.5
   3.3. Discharged water must not contain chlorine in excess of 0.02 mg/L (instantaneous maximum)

Follow these procedures to take water quality measurements to verify requirements for receiving water limitations and discharge effluent limitations:

1. For discharges of water that exceed 4 hours in duration occurring within a 24-hour period:

   1.1. If the discharge may affect the receiving body of water in a storm water drainage system, take measurements at the background and receiving water sampling locations no more than 1 hour before discharging treated water.
   1.2. Startup-phase sampling includes stormwater runoff, background, and receiving water measurements taken during the first 3 days of discharge. Start start-up phase sampling 10 to 30 minutes after measurable runoff occurs during a storm. Take samples on regular intervals during the storm. Take at least 4 samples for each discharge lasting 4 hours or more. The time between sampling must not exceed 4 hours.
   1.3. Regular-phase sampling includes effluent, background, and receiving water measurements that occur after the 3rd day of operation. Do regular-phase sampling at least twice daily. Take samples at regular intervals.
   1.4. If there is a noticeable change in color or clarity in the receiving body of water, take additional effluent, background, and downstream measurements.
   1.5. If an initial measurement shows that water quality limits are exceeded, take an additional measurement no less than 15 minutes and no more than 1 hour after the initial measurement.
   1.6. If the second test confirms the limits were exceeded, revert to the startup-phase sampling requirements before resuming regular-phase sampling.
   1.7. For cofferdam maintenance dewatering, regular-phase monitoring may be discontinued after 10 days if the effluent and receiving water measurements are consistently below the water quality limits.

2. For water discharges less than 4 hours in duration occurring within a 24-hr period:

   2.1. If the discharge may affect the receiving body of water in a storm water drainage system, take measurements at the background and receiving water sampling locations no more than 1 hour before discharging treated water.
   2.2. Take effluent, background, and receiving water measurements from 10 to 30 minutes after initiating discharge. Continue to take measurements every hour.
   2.3. If an initial measurement shows that water quality limits are exceeded, take an additional measurement no more than 15 minutes after the initial measurement.
   2.4. If there is a noticeable change in color or clarity in the receiving body of water, take additional effluent, background, and downstream measurements.

3. For all discharges of water:

   3.1. Measure for stormwater effluent turbidity and pH at the end of the outfall or in-line sampling port.
   3.2. Measure receiving water turbidity, pH, and dissolved oxygen at a point within 30.48 meters downstream of the discharge point.
   3.3. Measure for natural background turbidity, dissolved oxygen, and pH at a location that is within 15 meters upstream of the discharge point. If other construction activity is being performed, measure at least 45 meters upstream of the discharge point.
   3.4. If the discharge is made into a surface body of water, or into a stormwater drainage system that produces an observable effect on a surface body of water, monitor the receiving water.

4. For receiving water and natural background measurements:

    4.1. If the receiving water is deeper than 1 meter, take depth-averaged measurement by taking samples from 3 points within the water column and averaging the 3 measurements:

        4.1.1. 300 mm below the surface.
        4.1.2. Mid-depth.
        4.1.3. 300 mm above the bottom.

    4.2. If the receiving water is less than 1 meter in depth, take measurement 300 mm below the surface.

Comply with the manufacturer's instructions for use and calibrations of meters and devices for taking water quality measurements. Perform calibrations in the presence of the Engineer.

Inspection

Inspect temporary active treatment system:

1. Daily if dewatering work occurs daily
2. Weekly if dewatering work does not occur daily

Reporting

If observations and measurements confirm the water quality limits are exceeded:

1. Submit a Notice of Discharge Report as shown in the Preparation Manual within 3 business days of exceeding the limits
2. Document the reasons and corrective work performed to prevent a reoccurrence in the Notice of Discharge

Maintenance

Maintain the various components to prevent leaks and provide proper function. If a component of the dewatering equipment is not functioning properly, discontinue the dewatering operation and repair or replace the component.

Sediments removed from uncontaminated areas during maintenance of the treatment system must be dried, distributed uniformly, and stabilized at a location within the project limits approved by the Engineer.

Removal

Backfill and repair ground disturbance, including holes and depressions, caused by the installation and removal of the temporary active treatment system. Comply with Section 15-1.02, "Preservation of Property," of the Standard Specifications.

PAYMENT

The contract lump sum price paid for temporary active treatment system includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in designing, implementing, monitoring, maintaining, and later removing the temporary active treatment system, including disposal of accumulated sediment, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.175 COOPERATION

It is anticipated that work by another contractor may be in progress adjacent to or within the limits of this project during progress of the work on this contract. The following table lists contracts anticipated to be in progress during this contract.

Contract No.	Co-Rte-KP	Location	Type of Work
04-4A8814	Son-128-34.9	About 0.2 km West of Redwood Creek Bridge	Environmental Mitigation

Comply with Section 7-1.14, "Cooperation," of the Standard Specifications.