

**CHANGES TO SEPTEMBER 27, 2005 SWPPP
FOR
BOARD ORDER NO. R6V-2005-0020A1 (PROPOSED)**

The following revisions are proposed to the Storm Water Pollution Prevention Plan (SWPPP) dated the September 27, 2005, for the purpose of providing more detail to the Plan. The following red-line strike-out portions of the text were excerpted from pages 4, 26, 29, 30, 37, 38, 47, and 48 of the SWPPP dated September 27, 2005, which was posted on the Regional Water Board’s website. A Revegetation and Monitoring Plan for Lands Disturbed During LORP Construction Activities has also been added to the end of Chapter 8, Post-Construction Plan and BMPs.

3.0 LIST OF CONTRACTORS AND SUBCONTRACTORS

Unit Two includes the Lower Owens River Pump Station

The tables below list the contractors and subcontractors conducting work at the site.

General Contractor: Kiewit Pacific Co.			
On-site Supervisor: Tim Luthje, Project Manager			
Persons Responsible for BMP Implementation: Tim Luthje			
Name	Title	SWPPP Responsibility (ex. BMP inspection. Training)	Phone, Mobile or Pager Number
Tim Luthje	Project Manager, Kiewit Pacific Co.	Implementation, Compliance and Training	(562) 946-1816
Josh Young	Project Engineer, Kiewit Pacific Co.	Implementation, Compliance and Training	(562) 946-1816
Ignacio Gomez	LADWP Inspector	BMP Inspection and Compliance	(213) 792-4837

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5.0 POLLUTANT SOURCES AND BMP IDENTIFICATION

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5.13 Best Management Practices by Project Component

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5.13 (a) Project Component ID No. 1 - River Intake Modification

Temporary Cofferdam in the Forebay

A temporary cofferdam or Portadam will be installed on the upstream side of the diversion. A temporary cofferdam could involve pile driving and steel plates or wood lagging or creating an earthen berm; the preferred option being investigated is a temporary Portadam steel structure and impervious rubber membrane.

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Construction Dewatering

Description: To isolate the work area during modifications of the River Intake spillgates, a coffer dam or Portadam will be installed in the forebay along the entire length of the River Intake structures (approximately 400 feet). The coffer dam will consist of compacted soils and/or sheet pile. A Portadam option consists of a temporary steel framework placed in the Aqueduct with an impervious rubber membrane material liner laid over the framework along the bottom of the approx. 40 foot wide Aqueduct to the opposite bank. During installation of the coffer dam or Portadam (lasting approximately 1 to 2 weeks), the flow in the River/Aqueduct will temporarily be reduced to 25 cfs to lower the water levels in the forebay to enable the coffer dam installation. Once the coffer dam is in place, the flows around the coffer dam will be up to 600 cfs. After coffer dam installation, the water between the coffer dam and the River Intake structures will be removed to maintain a dry work area. Several sump pumps will be installed between the coffer dam and the River Intake for dewatering. The water will be pumped into the forebay at the downstream (west) end of the coffer dam. This dewatering operation will be necessary both for initial removal of water after coffer dam installation and to remove any groundwater that seeps into the area during the construction period. The groundwater will be sampled for sediment content and depending on the volume will either be discharged to a low area east of the River (limited to approximately 300 by 300 feet) or into portable tanks with separation chambers to remove sediment before discharging into the forebay. A gravity bag filter or dewatering bag of non-woven geotextile fabric may be installed on the discharge end of a dewatering pump to collect sediment. The filter bag will be purchased with an opening size to screen to the existing baseline sediment levels, filter bags are available with various openings such as 40 and 80 US standard sieve. If sump pumps are used they will be equipped with screen covers to prevent larger particles and debris from entering the pump. Sediment sampling will be conducted and compared to upstream background and reference samples and 1993 baseline data to determine if construction activities are contributing to sediment loads.

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5.13 (b) Project Component ID No. 2 - Temporary Flow Measuring Stations

Fifteen temporary flow measuring stations will be installed along the River prior to water releases. Each station will require minimal disturbance to the river channel to grade the area for approximately a 30 by 50 foot long area to place a geotextile pervious membrane. An area velocity flow meter will be installed on the bottom of the channel. A 2 inch diameter pipe (12 feet high) will be equipped with a pole mounted solar panel and control box 2 by 2 feet for the data collection measuring equipment will be installed along the west bank of the river.

Schedule - approx. six months, from January 2006 through June 2006 to install the flow measuring stations at various locations.

Access to the various station locations will be from existing and temporary dirt roads in the area shown in yellow on Figure 3. Installation of the station will require minimal disturbance to existing vegetation. This portion of the project will not require any equipment or material staging areas. Concrete mixing for the mounting of the solar panel will be done by a portable mixer, quantities will only be mixed for the job need.

After approximately two years a determination will be made to as to which stations will remain permanent. Removal of the temporary stations will be conducted during the low flow period, the area velocity meter is easily lifted out with a small crane and the geotextile pervious membrane can be pulled out since it is not anchored to the channel bottom.

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5.13 (g) Project Component No. 7 – Pump Station Site

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Temporary Cofferdam

During construction a 2-3 foot high temporary earthen berm will be constructed to divert flow from the river around the construction site. A 100-foot wide corridor across the river will be cleared and a temporary earthen berm (using riverbed materials) will be installed to divert flows to a temporary bypass pipe or open channel on the east side of the river. If an earthen berm is used a rubber membrane liner may be required to ensure sediment is not carried downstream. Alternatives would be the installation of sheet piling and steel plates or wood lagging or a temporary cofferdam composed of structural pipe or steel beam supports and an impervious rubber membrane fabric liner.

Construction will take approx. 2 months – January through March 2006. The temporary cofferdam will remain in place for approximately 12 months – January 2006 through December 2006.

Construction Dewatering

Description: To maintain a dry work area during construction of the pump station and associated facilities, a dewatering system will be designed and installed by the contractor to remove groundwater from the work area. The water will be discharged to the River channel immediately downstream of the work area. The dewatering system will be temporary and only in place during construction, the dewatering system will be removed when construction activities no longer are impacted by groundwater. The Contractor will follow the Water Quality Sampling and Analysis Plan in Appendix K and applicable BMPs such as Dewatering Operations to ensure that sediment loads from construction activities are not transmitted downstream. Water samples will be compared to reference upstream samples to ensure no additional sediment loading is discharged during dewatering activities.

Receiving Water / Discharge Location: Lower Owens River downstream of the pump station construction area

Discharge Rate: Approx. 1,000 gpm

Duration of Diversion: Approx. 12 months – January 2006 through December 2006.

Receiving Water / Discharge Location: Lower Owens River downstream of the pump station construction area.

Discharge Rate (Estimated Flow of the Diverted Stream): Approx. 1 to 16 cfs

Duration of Diversion: Approx. 12 months – January 2006 through December 2006.

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West Access Road

Approximately 3,200 feet of an existing roadway to the pump station site has been surfaced with aggregate base. The Contractor will maintain the access road in good condition throughout the duration of the project, January 2006 through April 2007.

Sediment Basin

Description: A flooded area or ‘forebay’, will be created in the river channel upstream of the diversion structure. Under the 40 cfs base flow condition, the forebay would be about 17 acres. A 185- by 270-foot, 4-foot deep sediment basin will be constructed and maintained in the forebay approximately 200 feet upstream of the diversion structure associated with the pump station. The total capacity of the sediment basin will be approximately 7,400 cubic yards. The basin is needed to protect the diversion structure and the pump station from excessive sedimentation.

Schedule - completed within the first 6 months of pump station construction, January through June 2006.

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Pump Station BMPs

- Riprap will be used to stabilize the slopes of the permanent diversion structure and the sediment basin at the pump station site.
- Stabilize the sediment stockpile at the pump station site as necessary to minimize wind-blown dust from the stockpile. Methods to reduce fugitive dust emissions include revegetating the pile, armoring it with a layer of coarse materials, soil, binders, or water application.
- Additional BMPs may be proposed by the Contractor and will be submitted via amendment.

The monitoring and reporting requirements relevant to proposed project activities include:

- For hydrostatic testing discharges, date and approximate volume of discharge at each location

Any proposed change in excavation disposal practice or location shall be reported to the Executive Office of the SRWQCB at least 90 days in advance of the change.

BMPs that may be used during the pump station facility construction include:
(Reference BMPs from the California Stormwater Quality Association
www.cabmphandbooks.com)

Scheduling	EC-1
Silt Fence	SE-1

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6.0 BMP INSPECTION AND MAINTENANCE PROGRAM

6.1 Inspection / Maintenance Reports

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If a violation of water quality standards is suspected, the LADWP Safety and/or Engineering Section shall be immediately contacted and the emergency section of the Spill Prevention Control and Countermeasure Plan shall be implemented to contain and report a hazardous spill or water quality violation. The Regional Water Quality Control Board shall be notified by telephone as soon as possible but no later than 24hours after the discharge violation has been discovered. This notification shall be followed by a report within 5calendar days to the RWQCB, unless otherwise directed by the RWQCB, describing the (1) nature and cause of the water quality standard exceedance; (2) the BMPs currently being implemented; (3) any corrective actions or additional BMPs identified in the SWPPP which will be implemented to prevent or reduce pollutants that are causing or contributing to the exceedance of water quality standards; and (4) any maintenance or repair of BMPs. This report shall include an implementation schedule for corrective actions and shall describe the actions taken to reduce the pollutants causing or contributing to the exceedance.

6.2 When to Perform Inspections

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The pump station site will have the following LADWP inspection personnel and Supervision on site during construction to ensure the contractor is complying with storm water and BMP requirements.

Ignacio Gomez, LADWP Inspector	(213) 792-4837.
Tim Luthje, Project Manager Kiewit Pacific Co.	(562) 946-1816
Josh Young, Project Engineer Kiewit Pacific Co.	(562) 946-1816

8.0 POST CONSTRUCTION PLAN AND BMPs

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Revegetation and Monitoring Plan for Lands Disturbed During LORP Construction Activities

Under this plan, for all project components, existing vegetation will be preserved to the maximum extent possible to reduce or eliminate the need for revegetation. Prior to commencement of clearing and grubbing operations or other soil-disturbing activities at the larger project sites (e.g., pump station and River Intake), temporary fencing, flags, or other methods of delineation will be used to delineate areas where no construction activity is planned.

Prior to disturbing extant vegetation, a qualified biologist will determine the cover and composition of the plant community to be disturbed. If this is not possible, cover and composition of the disturbed area will be assumed to be similar to the adjacent undisturbed vegetation.

Prior to revegetation activities, a reputable seed collecting company will be contacted to supply seeds of native species. On-site revegetation activities conducted by LADWP or its contractors, such as planting, seeding will continue as needed.

Potential Disturbances Requiring Revegetation

Access Roads for Channel Clearing

Temporary access roads used to clear the river channel shall be seeded with native or naturalized grasses and shrubs common to the valley, as available, after completion of the desilting operation to facilitate restoration of vegetation cover and species compatible with the surrounding vegetation. The colonization by non-native aggressive or noxious weeds shall be inhibited by weed control. During recent preconstruction activities it was determined that existing roads should be sufficient enough such that no new temporary access roads should be required. If a new road is created, restoration shall commence within one year post-construction.

Disturbed Upland Areas Within the Pump Station Work Site

Upland areas disturbed during construction at the pump station site shall be regraded to create natural contours that match adjacent topography, then shall be seeded with native plant species. Restoration shall commence within one year post-construction. The goal of the restoration shall be to restore plant species and cover to pre-construction conditions over time. The species included shall be based on the species removed, availability of seeds or plant materials, and ability to cultivate each species. The colonization by non-native aggressive or noxious weeds shall be inhibited by weed control.

Blackrock Waterfowl Habitat Area

This area is a man-made water spreading basin with no discharge to any surface waters or jurisdictional wetlands. The limited work to be conducted in the area will be on artificial levees or on man-made spreading basin bottoms that will be inundated periodically therefore, revegetation activities are not anticipated. If there is significant disturbance, mitigation measure B-1 listed above will be followed and the criteria listed below.

Revegetation Methods

Revegetation methods, plant maintenance, performance goals, and monitoring methods are based on the results of LADWP's ongoing experimental dryland revegetation studies in the Owens Valley.

Weed Control to Facilitate Plant Establishment

LADWP is in the process of funding (as part of the LORP mitigation) a seven year annual cost of Inyo County Agricultural Commissioner's weed control in the LORP area. The amount of funding is based on an annual cost estimate received from Inyo County. This is expected to amount to \$50,000 per year to treat weeds within the LORP and an additional \$150,000 per year to treat potential seed sources outside the LORP area within Inyo County. This 7 year time frame commitment is based on numerous stream enhancement projects that LADWP has implemented. LADWP has found that after 7 years the native vegetation has established to the point exotics are no longer a significant problem. In addition, LADWP is

a member of the Eastern Sierra Weed Management Area Group which actively takes management actions through interagency efforts to control exotics within the region. LADWP is the most active member of that group. Therefore weed management is not only an ongoing activity but an essential part of our continuing watershed management. LADWP has dedicated permanent staff to attend annual training to remain certified for weed spraying and are diligent to deal with new weed problems early before they can become non-manageable problems later.

Criteria

A 7-year monitoring and maintenance program shall be implemented to ensure successful establishment of the plants. The following are the mitigation goals for revegetation: (1) at least 50 percent of the native perennial species present at the site prior to construction shall be established by year 3 and persist through year 7; (2) plant cover shall achieve 50 percent of pre-construction cover values by year 5 and 65 percent by year 7; (3) newly established plants shall exhibit normal growth rates and healthy conditions for at least two years without supplemental watering and weeding; and (4) cover by non-native noxious weeds shall not exceed pre-construction conditions.

Monitoring Procedures for Determining Goal Compliance

Confirmation of achieving the cover goal for an area will be verified by using the Observation Method. If it is determined that this monitoring scheme will not provide the necessary data for assessment of goal compliance, a new sampling method will be adopted.

Reporting

LADWP will prepare an annual report on this revegetation project. If after 3 yrs, revegetation is not on schedule as described in this plan, the annual report will be expanded to include identification of any areas where LADWP believes the agreed upon revegetation goals cannot be timely and/or feasibly implemented. The expanded report will describe LADWP's good faith efforts to timely implement the plan and the reasons for why LADWP believes the goals cannot be feasibly or timely achieved. If LADWP believes the goals for an area cannot be feasibly achieved, the report will provide a description of proposed alternatives for the area. If LADWP believes the goals cannot be timely implemented, the report will include a revised time schedule for implementation of the goals.