Project title:	Soil Testing and Equipm Substations (No. CC1, C		s-Contra Cos	sta Water District	Pumping Plant
Requested By	: Donald Lash	Mail Code :	N1411	Phone:	916-353-4048
Date Submitte	ed: 3-15-2015		Date Re	quired: 4-1-201	5

#### **Description of the Project**

The Western Area Power Administration (Western), Sierra Nevada Region (SNR), in cooperation with the U.S. Bureau of Reclamation (Reclamation), is proposing to conduct remediation activities within the three Contra Costa Canal (Canal) Pumping Plant (PP) substations located along the Canal in Contra Costa County. The proposed remediation activities will include soil boring tests, soil removal, and equipment upgrades within the perimeter fencing of the three substations. The three Pumping Plants and associated substations are collectively referred to as PP1, PP3, and PP4 and are located at different points along the Canal with PP4 located in Antioch and PP1 and PP3 in Oakley (enclosure 1). The substations alone are identified as CC1, CC3, and CC4 respectively. Only limited electrical connection work is proposed for the Pumping Plant facilities themselves. No ground disturbing work or mechanical work will be done at the pumping plants; the scope does include replacing feeder cables using existing underground conduits and replacing overhead lines. The 2.3-kV disconnect switches at the pumping plant will also be replaced.

CC1 and CC4 are located on land owned by Reclamation and CC3 is located on land owned by Western. Western owns the equipment within CC1, CC3, and CC4. The Contra Costa Water District, under an agreement with Reclamation, is responsible for the operation and maintenance of all equipment within CC1, CC3, and CC4 and would be conducting all remediation activities and the equipment upgrades on Western's equipment.

Substations CC1, CC3, and CC4, are connected to Western's existing Tracy-Contra Costa 69kilovolt (kV) transmission line and function to reduce the 69-kV power to 2.4-kV power before supplying power through a connection to each of their respective Pumping Plants. CC3 was constructed in 1940 and was the sole source of interconnecting power for all 4 Canal Pumping Plants. In 1965, CC1 and CC4 were newly constructed to supply power to PP1 and PP4. The connection from CC3 to Pumping Plant 1 remains as an emergency backup service connection but is not normally used and the connection from CC3 to Pumping Plant 4 was completely removed as part of the Highway 4 Bypass Project. CC3 still provides power to Pumping Plant 2 as well as Pumping Plant 3 (there is no "CC2" substation). Due to age, wear and tear, the equipment inside the substations needs to be upgraded (replaced).

The proposed remedial actions at CC3 Substation includes: (1) removal of the existing oil circuit breaker and foundation; (2) removal of the existing transformers and foundations (there are a total of 4-single phase transformers, 3 are in use and 1 is a spare); (3) removal of the overhead bus between the circuit breaker and transformer; (4) installation of a new 3-phase transformer

and foundation with secondary oil containment; and (5) installation of a new circuit breaker <u>or</u> fused disconnect switch and foundation. Emergency backup service connection from CC3 to PP1 will remain as emergency backup service connection.

At CC1 and CC4 Substations work includes (1) upgrade or replace the existing fused disconnect switches; (2) removal of the existing transformers and the existing transformer foundations; and (3) installation of new 3-phase transformers and foundations, with secondary oil containment at each of the substations.

For all substations, the work also includes replacing disturbed ground mats and gravel surfacing (similar to existing yard rock).

The substations may require excavation and removal of visible mineral oil-contaminated soil above the substation ground mat to an extent that the oil is no longer detectable visually or by odor. Ground mats control electrical ground currents within a substation and are placed approximately 18" to 24" below the surface when facilities are initially constructed.

Before any of the above activities begin, soil borings will be taken to determine the soil strength and composition within (or under) the substations. This is necessary in order to properly design the new foundations and check the stability of the soil to support the new equipment.

The soil boring activities would entail two hand-augured bore holes at each of the substations. Hand augers are hand operated and remove soil in a cylinder for laboratory testing. Bores are 4 inches in diameter and up to 10 feet deep. Each bore hole would remove up to 0.872 cubic feet of soil, for a total of up to 5.24 cubic feet of soil. Removed soil will be tested at a laboratory to determine soil performance properties (density, bearing capacity, etc.). Bore holes will be backfilled with slurry cement.

During construction, equipment and material staging will take place in the available space adjacent to the substations. Typical construction equipment (mini-excavators, backhoes, cranes, forklifts, and trucks) would be used to replace and install the new equipment at each substation.

Map(s)
 See attached Maps
 Figures(s)
 See attached Figures
 Work Order Number - 100337612

To be completed by Natural Resources Only

N	Action taken ote: All Documentation is Attached	
Categorical Exclusion (CX) Environmental Assessment (EA) Environmental Impact Statement (EIS)	<ul> <li>Integral Elements</li> <li>NEPA Attachment Sheet</li> <li>Environmental Requirements/Mitigation</li> </ul>	

Other Determinations:	Maps/Figures
	rovided to me concerning the proposed action as NEPA
	sed action meets the requirements for the categorical exclusion
listed above. Therefore, I have determined that the pro-	oposed action may be categorically excluded from further NEPA
review and documentation./	
Derald Malin	1 3/27/15
Gerald Robbins, Natural Resource Manager	Date Approved

bcc:	File Code:	Assigned to:	Project #:	Environmental Specialist- Date:
		Donald Lash	100337612	Donald Lash – 12-10-14

#### Integral Elements

### Project Title: Soil Testing and Equipment Upgrades-Contra Costa Water District Pumping Plant Substations (No. CC1, CC3, & CC4)

#### **Category of Action:**

### • B4.6 Additions and Modifications to Transmission Facilities

Additions or modifications to electric power transmission facilities that would not have the potential to cause significant impacts beyond the previously disturbed or developed facility area (including, but not limited to, substation rock grounding upgrades, secondary containment projects, paving projects, seismic upgrading, tower modifications, load shaping projects (such as the installation and use of flywheels and battery arrays), changing insulators, and replacement of poles, circuit breakers, conductors, transformers, and cross arms).

### • B4.11 Electric Power Substation and Interconnection Facilities

Construction or modification of substations (including switching stations) with power delivery at 230 kV or below and/or support facilities that would not involve the construction or relocation of more than 10 miles of transmission lines or the integration of a major new resource.

**Regulatory Requirements for a Categorical Exclusion Determination**: The Department of Energy (DOE), National Environmental Policy Act (NEPA) Implementing Procedures, 10 CFR 1021.410(b) require the following determinations be made in order for a proposed action to be categorically excluded (see full text in regulation).

1. The proposed action fits within a class of action listed in Appendices A and B to Subpart D. For classes of actions listed in Appendix B, the following conditions are integral elements; i.e., to fit within a class, the proposal <u>must not</u>:

a. Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders;

b. Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities, but may include categorically excluded facilities;

c. Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or un-permitted releases; or

d. Have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B;

e. Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

2. There are no extraordinary circumstances related to the proposal which may affect the significance of the environmental effects of the proposal;

3. The proposal has not been segmented to meet the definition of a categorical exclusion. The proposal is not connected to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions requiring preparation of an environmental impact statement.

**Results of Review:** In accordance with DOE environmental regulations (10 CFR 1021), The Western Area Power Administration (Western) has reviewed the proposed action in terms of the level of NEPA review needed. Based on this review, Western has determined the proposal is encompassed within a class of action listed in Appendix B to Subpart D (10 CFR 1021.410) which do not require preparation of either an environmental impact statement (EIS) or an environmental assessment (EA).

The proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.



# Western Area Power Administration, SIERRA NEVADA REGION NEPA Attachment Sheet

Project Number 100250561

### **PROJECT TITLE:**

Soi	I Testing and Equipment Upgrades-Contra Costa Water District Pumping Plant Substations
(N	D. CC1, CC3, & CC4)
AFFECTI	ED ENVIRONMENT
	The project area is within the cities of Oakley and Antioch in Contra Costa County. This area has a Mediterranean climate, which is characterized by mild, dry summers and cool, moist winters with annual precipitation ranging between approximately 13 and 22 inches per year. The project area is composed of mostly flat terrain surrounded by non-native annual/natural grassland areas adjacent to the canal. From the Sacramento-San Joaquin Delta region the canal runs through urban/light industrial sections of the county as well as open space agricultural land before heading into more densely populated communities of the East San Francisco Bay. (Concord, Walnut Creek, and Martinez). Access to the pumping plant substations are typically associated with paved roads and dirt gravel roads adjacent to the canal.
REVIEW	
	Habitat type within the substation was compared to the California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife sensitive species lists for species that may occur in the area. Based on habitat type within the substations and the perimeter fence around the substations, sensitive species are unlikely to occur within the project areas. Migratory Bird Treaty Act restrictions must be adhered to and are detailed below.
CULTUR	AL AND HISTORIC RESULTS

$\bowtie$	The Contra Costa Canal (Canal) is a historic property determined eligible for listing in the
	National Register of Historic Places (NRHP) in concurrence with the Office of Historic
	Preservation in March of 2005. Most of the structures associated with the Canal are considered
	contributors to its historical significance as well. The Canal's significance is its association to
	the Central Valley Project. The period of significance is 1937-1952 during the inception and
	construction of the Canal. Although a historic resources inventory was conducted on the Canal
	in 2006 by JRP Consultants, the substations themselves were not evaluated as possible
	contributing features to the Canal. Western determined that CC3 could be considered a
	contributing element to the historic nature or the Canal. CC3 was the only substation built
	during the period of significance and it acted to supply power to all four Pumping Plants. CC3
	had not been altered since 1940. CC1 and CC4 are much later and not considered contributors.
	It's function for and association with the Canal is CC3's significance. However, CC3 would not
	qualify individually as a historic property without this association to the historic Contra Costa
	Canal. Although retaining most of its integrity, CC3 is not at all unique in design or structure
	for substations of that period. Like CC1 and CC4, CC3 was constructed by local engineers
	working with CCWD and Reclamation eliminating its eligibility under Criterion B. Neither is
	CC3 likely to yield information important in history (or prehistory) and does not meet eligibility
	under Criterion D. It should be noted that, although the appearance of CC3 will be altered, it will
	still retain integrity of location, setting and association with the Canal. Furthermore, CC3 is
	significant for its association with the Canal and that association is its function as a power source
	for the pumping plants. This proposed project does not alter that association. The proposed
	equipment upgrade to CC3 does not alter other character-defining features of the entire Canal
	that contribute to its historical significance.
	Regarding the ground disturbing activities for the proposed undertaking, Western concludes that
	there is very little, if any, potential for the proposed boring activities or the foundation and
	secondary containment work to impact intact cultural resources. The soil under CC1 and CC4 is
	disturbed fill to a depth of at least 7 to 10 feet as the early grading plans and profiles show and
	the high berms aligning the Canal indicate. The fill most likely is excavated soils from the
	Canal construction. The excavation activities for the construction of the oil-containments and
	new foundations would occur in already disturbed soils within the substations as these activities
	would not exceed the earlier grading and foundation levels. Early grading and foundation plans
	for CC3 show ground disturbance to a depth of 6 feet.
	Pursuant to §800.5(b) of 36 CFR Part 800 (as amended 2004), Western determined that no
	historic properties will be adversely affected by the proposed undertaking. SHPO concurred with
	this determination (WAPA 2015 0225 001).
$\boxtimes$	Consultation on this project was completed on: March 9, 2015- Consultation letters on file at
	Western.
	This action is covered by Western's Programmatic Agreement, "Programmatic Agreement
	Among the Western Area Power Administration, the Advisory Council on Historic Preservation,
	and the California State Historic Preservation Officer Concerning Emergency and Routine
	Maintenance Activities and Other Routine Activities at Western Facilities in California,"
	revised March, 2010.
	Mitigation required: None
$\Box$	Include in Western's annual report

BIOLOGI	CAL RESULTS
	Studies conducted, in order to evaluate potential impacts of the proposed project on special status species and/or their habitats, included background research to determine which special-status species and their habitats may occur within the project area and a review of habitat types in the project area. Avoidance measures for migratory birds and perennial waters are detailed below.
$\square$	Mitigation required (see below)
	ANCE RESULTS
	<b>Recycled Materials Quantities:</b> All materials generated from the project that can be recycled, shall be recycled. Submit quantities of all recycled material by category to the COR within 30 days of recycling and prior to submittal of final invoice. Record quantities of material by category that is salvaged, recycled, reused, or reprocessed.
	<b>Disposal of Waste Material:</b> Dispose or recycle waste material in accordance with applicable Federal, State, and local regulations and ordinances. Coordinate with COR regarding sampling and signatures on manifests for wastes materials if required. Submit quantities of total project waste material disposal as listed below to the COR prior to submittal of final invoice.
	(1) Unregulated Wastes (i.e., trash): Volume in cubic yards or weight in pounds.
	(2) Hazardous or Universal Wastes: Weight in pounds.
	(3) PCB Wastes (If applicable): Weight in pounds.
	(4) Other regulated wastes (e.g., lead-based paint or asbestos): Weight in pounds (specify type of waste in report).
	Pollutant Spill Prevention, Notification, and Cleanup: The Spill Prevention, Notification, and Cleanup Plan is expected to be a brief description of the measures taken by the contractor to prevent spills, to notify in the event of a spill, to train personnel, and to describe the company's commitment of manpower, equipment, and material which would be mobilized in the event of a spill. The plan should describe those elements in proportion to the risks posed by the project. This not intended to be the Spill Prevention, Control and Countermeasures Plan, as specified in 40 CFR 112. Those plans are required by law for facilities with ≥1320 gallons of oil storage.
	<b>Prevention of Air Pollution:</b> Federal law requires the protection of air quality under the Clean Air Act. All activities on this project shall be compliant with Federal, State, and local regulations. In particular, California Air Resources Board regulations apply to diesel equipment and trucks as well as fleets of large spark ignition equipment. Also, the project is located within the San Joaquin Valley Air Pollution Control District jurisdiction and is subject to the local rules from that agency.
	<b>Prevention of Greenhouse Gas Emissions:</b> Federal law requires the reporting of emissions under the Greenhouse Gas Regulation 40CFR98. All emissions of sulfur hexafluoride on this project shall be reported to Natural Resources. Installation and maintenance of equipment containing sulfur hexafluoride or any other greenhouse gas shall be in accordance with management practices designed to eliminate emissions.

$\square$	Prevention of Water Pollution: Federal law requires the protection of water quality under the
	Clean Air Act. The project is exempt from the General Permit for Stormwater Discharges
	Associated with Construction and Land Disturbance Activities issued by the California State
	Water Board because it consists of routine maintenance activities in an existing right of way, and
	because the proposed staging areas occurring outside that existing right of way measure
	collectively less than one acre. Construction activities must therefore remain strictly within the
	boundaries specified in the plans in order to qualify for this exemption. Best management
	practices will be used to control runoff from the project areas.
MITIGATI	ON
$\boxtimes$	Other Mitigation: Not Required

### ITEMS CHECKED ARE APPLICABLE TO THIS PROJECT.

#### General

	Under the Migratory Bird Treaty Act of 1918, migratory bird species and their nests and eggs are protected from injury or death. Impacts to migratory bird nests shall be avoided during the nesting season
	(February 1 to August 31). If project activities occur during the nesting season, Western will survey the
	project area for migratory bird nests prior to project activities and establish appropriate buffers around any
	active nests that may potentially be disturbed. If work must be conducted within these buffers, a Western
	supplied biological monitor will be on site for project activities within the buffers. If the biological
	monitor determines that activities are likely to cause nest impacts or nest abandonment, then project
	activities in the area shall be postponed or adjusted until nestlings have fledged, the nest is no longer
	active, or the activities are not likely to cause nest impacts or nest abandonment.
	Routine maintenance activities will be avoided from mid-March through mid-June in the vicinity of
	structures.
	Road maintenance operations will be conducted to minimize soil erosion. The United States Forest
	Service's Best Management Practices, Forest Practices, and Forest Practices Rules of the California
	Department of Forestry will be implemented where practical.
	Culverts will be sized to match storms that may occur during the life of the road to minimize the potential
	for access road washouts under high intensity storms.
$\square$	Excavated material will not be stock piled or deposited on or near stream banks, lake shorelines, or other
	water course perimeters where they could be washed away by high water or storm run-off or could
	significantly impact the water course.
	Vegetative management plans will be followed as appropriate.
	In areas where excavation is not required, vegetation will be left in place whenever possible and original
	contours maintained in an undisturbed condition.
	Habitat diversity will be maintained to the greatest extent feasible.
	Brush blades will be used on bulldozers in clearing operations where such use will help preserve the cover
	crop of grass, low-growing brush, etc.
	Dispose of all cleared vegetation in an appropriate manner.
	The biologist will determine whether a sensitive habitat is present at the maintenance site. If special
	status species are identified in the area, maintenance will receive approval from Natural Resources prior
	to initiating any maintenance.
$\square$	Natural Resources will be contacted immediately:
	a. If there is a "take" of a special status species or action affecting their critical habitat, and/or
	b. If archeological, paleontological, or historic evidence is found.
$\square$	No paint or permanent discoloring agents will be applied to rocks or vegetation.
	If used, survey stakes will be removed as a part of the final clean up.
	All work on access and maintenance roads must stay within the existing prism of the roads.
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### **Threatened and Endangered Species**

Federal law prohibits the taking of endangered, threatened, proposed or candidate wildlife and plants, and destruction or adverse modification of designated Critical Habitat. Federal law also prohibits the taking of birds protected by the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act. "Take" means to pursue, hunt, shoot, wound, kill, trap, capture or collect a protected animal or any part

thereof, or attempt to do any of those things. The Contractor must always stay within Western's right-of-
way and/or easement.
Known Occurrence of Protected Species or Habitat: Following issuance of the notice to proceed, and prior to the start of construction, Western will provide training to all contractor and subcontractor personnel involved in the construction activity. Untrained personnel shall not be allowed in the construction area. Western will provide two sets of drawings showing known sensitive areas located on or immediately adjacent to the transmission line right-of-way and/or facility. These areas shall be considered avoidance areas. Prior to any construction activity, the avoidance areas shall be marked on the ground in a manner approved by the COR. If access is absolutely necessary, the contractor shall first obtain permission from the COR, noting that a Western and/or other government or tribal agency biologist may be required to accompany personnel and equipment. Ground markings shall be maintained through the duration of the contract. Western will remove the markings during or following final inspection of the project.
Unknown Occurrence of Protected Species or Habitat: If evidence of a protected species is found in the project area, the contractor shall immediately notify the COR and provide the location and nature of the findings. The contractor shall stop all activity in the vicinity of the protected species or habitat and not proceed until directed to do so by the COR.
Prior to the start of project activities, all personnel will participate in environmental awareness training which will inform them of the sensitive habitats within the project area, the species that have the potential to occur in the project area, and the avoidance and minimization measures that are to be adhered to during project activities. Any new crew members that start after project activities have started will be given the environmental awareness training prior to starting work on site.
General Mitigation/Avoidance Measures: The Contractor shall follow all species specific conservation measures listed below as applicable to each site, in coordination with Western's Natural Resources Point of Contact (POC) and the COR.

## **Perennial Streams and Rivers**

I UI U	umai Sti cams and Rivers
$\square$	The following activities will be prohibited at all times within 100 feet of a seep, spring, pond, lake, river,
	stream, or marsh, and their associated habitats:
	<ul> <li>Vehicle access, except on existing access and maintenance roads, unless approved by Natural</li> </ul>
	Resources
	• Dumping, stockpiling, or burying of any material, except as required for specific O&M activities
	(e.g., rip-rap)
	<ul> <li>Mixing of pesticides, herbicides, or other potentially toxic chemicals</li> </ul>
	Open petroleum products
	Equipment will be stored, fueled, and maintained in a vehicle staging area 300 feet or the maximum
	distance possible from any seep, spring, pond, lake, river, stream, marsh, or their associated habitats.
	Vehicles will be inspected daily for fluid leaks before leaving the staging area.
$\square$	All spills of fuel or hydraulic fluid would be immediately cleaned up according to Western's guidelines
	for hazardous material handling.
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# **Compliance Regulatory Requirements**

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$\square$	No violations of applicable statutory, regulatory, or permit requirements for environment, safety, and
	health, including requirements of DOE and/or Executive Orders will be permitted.
$\square$	There will be no uncontrolled or un-permitted releases of hazardous substances, pollutants, contaminants,
	or petroleum and natural gas products to avoid Adversely affecting environmentally sensitive resources.
$\square$	In the event of a Hazardous Material/Waste spill Natural Resources and the COR will be contacted,
	dispatch notified, and the appropriate Federal, State, and local regulating authority notified depending on
	the type and size of the spill (For further guidance, please see Natural Resources).

$\boxtimes$	Hazardous Materials/Waste on-site to consider: Fueling of equipment; In the right of way, place spill drip pans (or similar) below fueling areas, spill kit and tools available nearby to stop the flow of fuel spills, and
	employees trained in spill response.
$\boxtimes$	Hazardous Materials/Waste need to be removed off site for disposal/recycling
	Piping and oil sampling required
	Material Analytical Data: See attached results for reference
$\boxtimes$	Erosion control measures to be taken to prevent sediment from reaching river
	Soil Sampling