



April 13, 2015

Mr. Weiquan Dong, PE
Bureau of Corrective Actions, Special Projects Branch
Nevada Division of Environmental Protection
2030 E. Flamingo Rd., Suite 230
Las Vegas, Nevada 89119

Mr. Jay A. Steinberg, not individually but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee
Nevada Environmental Response Trust
35 East Wacker Drive, Suite 1550
Chicago, Illinois 60601

**SUBJECT: Contingency and Work Plan
Enhanced Operational Metrics
Nevada Environmental Response Trust Site
Henderson, Nevada**

Dear Mr. Dong,

Tetra Tech is pleased to present this Contingency and Work Plan, which describes planned modifications to the groundwater extraction and treatment system (GWETS) at the Nevada Environmental Response Trust (NERT) Site in Clark County, Nevada (the "Site"). Modifications are being implemented at the Site to collect and report additional operational data at the request of the Nevada Division of Environmental Protection (NDEP). Changes to the GWETS will include:

- Modifications to the instrument and control system for the well fields and groundwater treatment plant;
- Modifications to the piping at GW-11; and
- Installation of buried and surface run communication cable and electrical conduit.

The scope of work for the modifications to the GWETS is described in the document entitled "Enhanced Operational Metrics Proposal Nevada Environmental Response Trust", dated August 20, 2014, and is detailed below.

This Contingency and Work Plan has been prepared in accordance with the Site Management Plan (SMP) Revision-1, dated October 2013. The Enhanced Operational Metrics work is related to the maintenance of the GWETS water system and for the purposes of the SMP is considered a Utility Project. This Contingency and Work Plan outlines Tetra Tech procedures and equipment that would be utilized in the event of unanticipated damage to any component of the GWETS.

Planned Work

The two main improvements listed below will be completed at Lift Station #1 (LS#1), Lift Station #2 (LS#2), and Lift Station #3 (LS#3) to meet the goals of the enhanced operational metrics:

- Replace the existing programmable logic controller (PLC), including the Human Machine Interface (HMI) and each lift station; and
- Program the PLCs for local totalization and data storage.

In addition to these improvements, the PLC at LS#2 will be programmed to allow for remote and/or automated control of the discharge control valve.

The Interceptor Well Field (IWF) and groundwater treatment plant (GWTP) will receive the following improvements:

- Replacement of the existing GWTP PLC and D1 PLC (in the control room of building D1);
- Addition of input/output (I/O) for new flow meters at each of the IWF wells;
- Addition of I/O for new flow control valves at each of the IWF wells;
- Addition of I/O for control and run status of each of the IWF wells;
- Addition of magnetic flow meters at each well;
- Addition of flow control valves at each well;
- Trenching of new conduit and wiring to the wells; and
- Update of the Supervisory Control and Data Acquisition (SCADA) configuration for changes.

Pressure transducers will also be installed in each extraction well in the IWF, Athens Road Well Field (AWF), and Seep Well Field (SWF). The conduit installed for the flowmeter signal wire will be used for the signal wire from the pressure transducer to the PLC in the IWF. In the AWF and SWF, new conduit will be installed for the signal wire.

Modifications to the GW-11 Pond to allow for additional sample collection, include installation of a static mixer in the vertical pipe section immediately after the influent line emerges from the ground on the east side of GW-11. The sample tap will be placed after the static mixer, and constructed in a way that allows an operator to take a sample from a convenient location near the ground.

Protection Measures

Tetra Tech personnel and subcontractors will protect the Site's monitoring wells, extraction wells, and related GWETS components by using the following precautions and procedures while implementing the scope of work defined above.

- Daily health and safety "tailgate" meetings will be held prior to the start of field work. During that time, the Health and Safety Plan (HASP) will be reviewed. Discussions of health and safety hazards and preventions will also be held at that time. The names and contact numbers for all Tetra Tech field staff and Tetra Tech subcontractors will be confirmed. Clear lines of communication will be established to ensure a swift and coordinated response to a potential accident.

- A task-specific Job Safety Analysis (JSA) will be prepared and reviewed prior to beginning each new task. Hazards related to each step of a task will be identified. Procedures needed to mitigate those hazards will be identified and implemented.
- Protective barriers such as barricades, traffic cones/pylons and caution tape will be used when activities involving trenching equipment are being performed in the proximity of exposed wells or other exposed GWETS components.
- A ground penetrating radar (GPR) survey will be conducted prior to any trenching being conducted on-site to clear underground utilities and GWETS components. Trenching areas will be reviewed with all field personnel prior to trenching to avoid accidental damage to above-ground components.
- Work areas will be delineated as necessary to avoid unauthorized entry into the work area.
- Staging areas and parking areas will be identified with cones, caution tape, etc. Traffic flow maps will be prepared for these areas.
- A designated spotter will be used for all vehicle movement. A policy of no vehicle backing without performing a 360-degree inspection and spotter guidance will be enforced.

Response Procedures and Equipment

- The immediate action taken in response of a release of untreated groundwater during the work will be to shut down and contain any uncontrolled flow.
- A spill response kit will be readily available during work. The spill response kit will be utilized in the event of a release of untreated groundwater or any fluids associated with the trenching equipment. The spill response kit will include an absorbent compound (such as cat litter), a plastic tarp, a 5-gallon bucket and appropriate hand tools to help control the flow.
- If any GWETS components are shut down due to damage to the system(s) or to control the release of untreated groundwater, Tetra Tech will immediately notify Weiquan Dong of NDEP at (702) 486-2850, extension 252 and GWETS operation personnel. Tetra Tech will also provide NDEP and the Trust with a written explanation for the shutdown.
- If Tetra Tech's work activities result in the release of untreated groundwater, the release will be reported to the NDEP 24-Hour Spill Notification Line, if required by NAC 445A.345 to 445A.348.

Dust Mitigation

Tetra Tech personnel and subcontractors will actively control fugitive dust emissions due to work by using the following precautions and procedures while implementing the scope of work defined above.

- Prior to beginning construction activities, a Dust Control permit will be obtained from the Clark County Department of Air Quality.
- Best Management Practices (BMPs) for dust control will be implemented as required by the Dust Control Permit and as outlined in the "Construction Activities Dust Control Handbook" (DAQ 2013).
- Mist or spray reclaimed water while performing excavation activities and loading transportation vehicles.

- Limit vehicle speeds on the property to 5 miles per hour.
- Control construction activities to minimize dust generation.
- Minimize drop heights.

Soil Management and Reporting

Implementation of this contingency and work plan will be performed in compliance with the SMP provisions for a Utility Project, as specified in Section 4.6. Soil excavated within an Excavation Control Area (ECA) will be managed according to Section 4.6.1.1, sampled according to Section 4.6.1.2 and disposed in accordance with Section 4.6.1.3. In addition, in non-ECA areas if soil is encountered that is visibly stained, discolored, shiny, or oily, or that has a noticeable solvent- or hydrocarbon-like odor (previously unknown contaminated soil), the notifications and management procedures specified in Section 4.6.2 will be followed.

To the extent possible, excess soil from outside the ECAs will be used to backfill the excavations in the ECAs. If it is necessary to import additional soil to backfill the excavation in ECAs, virgin soil from a commercial gravel pit will be used and the source of the material will be recorded. A completion report will be prepared as specified in Section 4.6.3 and submitted to NDEP and the Trust within 45 business days. The completion report will include the source of any imported backfill soil.

Decontamination of Equipment

Tetra Tech personnel and subcontractors will take steps to not allow contaminated soils to be transported out of the work area by using the following precautions and procedures while implementing the scope of work defined above.

- Prior to de-mobilizing from the Site, wheels for equipment used will be dry brushed to avoid tracking out contaminants.
- Prior to de-mobilization from the Site, auger blades, trenching equipment, and other tools will be dry brushed to avoid transportation of contaminated soils from the work area.

Storm Water Management


This project will not require a Storm Water Pollution Prevention Plan (SWPPP) as the project has a projected disturbed area less than 1 acre, and will not impact any receiving waters or their tributaries. However the following best management practices will be implemented to minimize potential impacts.

- Protection measures will be implemented if work is being conducted in the proximity of storm drain inlets. Protection measures will include the construction of a temporary earthen berm or placement of an absorbent sock around a storm drain inlet. Plastic sheeting will also be placed over the storm drain inlet and secured with sand bags. These protection measures will be removed once work is completed in the area.
- Trenching will be done in short runs and backfilled immediately following placement of the buried conduit to reduce the chance for run-on or run-off coming in contact with excavated soil.
- Soil excavated from ECAs will be managed, sampled and disposed in accordance with Section 4.6.2 of the SMP.

Please contact us at (801) 364-1064 if you have any questions. Tetra Tech, Inc. appreciates the opportunity to provide this Contingency Work Plan.

Sincerely,

Tetra Tech



Dan Pastor
Implementation Manager



Kyle S. Hansen, C.E.M. #2167
Field Operations Manager/ Geologist
CEM Certificate Number: EM-2167
Expiration Date: September 18, 2016

*"*I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations, and ordinances".*

Description of Services Provided: Contingency Work Plan for Enhanced Operational Metrics
Issued on April 3, 2015, Prepared for the Nevada Environmental Response Trust Site, Henderson, Nevada

cc: BMI Compliance Coordinator, NDEP, BCA, Las Vegas

ec: James Dotchin, NDEP
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