

SECTION 02710
CONTAMINATED GROUNDWATER MANAGEMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Management of contaminated groundwater from construction dewatering activities.

1.2 DEFINITIONS

A. Contaminated Effluent: Effluent from construction dewatering activities that is impacted with contaminants of concern and require special handling in accordance with applicable federal and state regulations.

B. Contaminated Groundwater: Groundwater that is impacted with contaminants of concern and require special handling in accordance with applicable federal and state regulations.

C. Effluent: Groundwater pumped from the ground during construction.

D. EPA: Environmental Protection Agency

E. HRSD: Hampton Roads Sanitation District

F. HRSD Industrial Wastewater Permit: HRSD permit in a form of a Letter of Authorization that allows contaminated groundwater to be discharged into the sanitary sewer system for treatment by HRSD.

G. VDEQ: Virginia Department of Environmental Quality

H. VPDES: Virginia Pollutant Discharge Elimination System

1.3 ACTION SUBMITTALS

A. Contaminated Groundwater Management Plan: Submit a Contaminated Groundwater Management Plan within 30 calendar days of contract award but prior to construction commencement. This plan shall include:

1. Summary of information regarding the location and nature of known or suspected groundwater contamination from studies provided by the HRSD.
2. Summary of permits required for the discharge and plan for securing such permits.
3. Proposed methods and procedures for contaminated groundwater management generated from construction dewatering activities including treatment equipment required.
4. Sampling, monitoring and reporting requirements and plans.

B. Proposed Protection Measures: Submit informational report, including drawings, indicating the measures proposed for worker protection from contaminated groundwater in accordance to applicable federal and state regulations.

1.4 REQUIRED INFORMATIONAL SUBMITTALS

A. Discharge Permit Submittals: Provide all contaminated groundwater discharge permits, correspondence and submittals related to VPDES permit compliance to include Discharge Monitor Reports (DMRs), and reporting for compliance with HRSD's Industrial Wastewater Permit, if applicable.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Review the requirements of all permits issued for contaminated groundwater discharge. Comply with governing EPA regulations in regard to discharging contaminated groundwater before beginning construction.

- B. Contaminated Groundwater Management Conference: Conduct a contaminated groundwater discharge conference at project site. Review methods and procedures related to contaminated groundwater management including, but not limited to, the following:
1. Review and discuss the Contaminated Groundwater Management Plan including duties of contaminated groundwater management coordinator responsible for this task.
 2. Review plan for documenting volume of effluent generated.
 3. Review procedures for encountering and discharging of known or suspect contaminated effluent.

PART 2 - EXECUTION

2.1 GROUNDWATER MANAGEMENT PROTOCOLS

- A. Comply with applicable Contract document terms, regulations, approvals, and permit conditions regarding dewatering. Measures to direct discharge to both HRSD and state waters under a VPDES permit shall be explored and implemented as appropriate.
- B. Employ best management practices as required by Virginia Erosion and Sediment Control Law including use of control measures, such as sediment basins and dewatering structures, per VDEQ regulations.
- C. Monitor dewatering discharge to ensure compliance with regulations and permits. Sample if required by permitting agency and adjust control measures accordingly.

2.2 PLAN IMPLEMENTATION

- A. General: Implement approved contaminated groundwater management plan.
- B. Training: Train workers, subcontractors, and suppliers on proper contaminated groundwater management procedures, as appropriate for the work.

2.3 PROCEDURE

- A. The Contractor shall dewater only the minimum volume of groundwater as necessary to construct the proposed improvement.
- B. Apply for and secure all permits required to discharge contaminated groundwater. Contractor shall be the Permittee for all required permits to discharge contaminated groundwater and will be solely responsible for compliance with all provisions of the applicable permit(s). HRSD or Engineer will periodically monitor compliance. Any upset, as defined by VDEQ or HRSD, shall be reported to HRSD immediately.
- C. Dewatering discharge shall be monitored to ensure compliance with regulations and permits. Sample in accordance with EPA and permit requirements and adjust control measures accordingly.
- D. Discharge as per regulations and applicable permits.
- E. If during construction activities, the Contractor detects a petroleum odor or other evidence of groundwater contamination (e.g. staining, turbidity, etc.) in an area of unknown contamination, then the Contractor shall immediately call the HRSD to report the suspected contaminated groundwater. All work should be temporarily stopped in this area of suspect contamination until additional guidance is provided by HRSD regarding the handling and treatment of such materials.
- F. Contractor shall not discharge any contaminated groundwater except as authorized and specified by applicable permits.

2.4 MEASUREMENT AND PAYMENT

A. Information regarding the location and nature of known or suspected groundwater contamination from previous studies is provided to assist the Contractor in calculating the quantity and cost for managing contaminated groundwater during construction dewatering activities. *{Note to Engineer: make a recommendation on whether costs associated with the proper management of contaminated groundwater shall be included in the lump sum bid for this project, covered under an allowance, or included as specific unit price items in Section 01270 - Measurement and Payment}.*

End of Section