Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

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By Siting Coordination Office - Department of Environmental Protection at 4:07 pm, Sep 24, 2010

September 23, 2010

Mr. Michael Halpin, P.E.
Program Administrator
Office of Siting Coordination
Department of Environmental Protection
3900 Commonwealth Boulevard
Tallahassee, FL 32399-3000

Re: Seminole Electric Cooperative, Inc.
Seminole Generating Station, Putnam County, Florida
Power Plant Certification No. PA78-10
Post-Certification Amendment to Application
Groundwater and Leachate Monitoring Plan

Dear Mr. Halpin:

Pursuant to Section 403.5113(1)(a), Florida Statutes, and Rule 62-17.205, Florida Administrative Code, please accept this letter and the attachment hereto as an additional post-certification amendment to the Seminole Electric Cooperative, Inc. ("Seminole") Site Certification Application ("Application") for the Seminole Generating Station in Putnam County, Florida. This post-certification amendment addresses the installation of additional groundwater monitoring wells at the Seminole Generating Station as well as the location, design, sampling, and testing for those wells. Moreover, this proposed post-certification amendment addresses leachate collection and sampling.

By way of background, in a Final Order Modifying Conditions of Certification dated March 2, 1995, the Florida Department of Environmental Protection ("Department") authorized Seminole to utilize Increment 1 of the existing FGD/sludge landfill. In conjunction with that authorization, Condition of Certification XII.D. requires Seminole to receive post-certification approval of "the final landfill construction drawings and retention pond design calculations" for Increment 1 before commencing construction. Accordingly, on July 20, 2010, Seminole filed the requisite construction drawings, retention pond design calculations, and related materials as required under Condition of Certification XII.D., and the Department's review of those materials is still ongoing.

This proposed post-certification amendment to the application also relates to the build-out of Increment 1. More specifically, with this separate submittal Seminole is requesting that the "Water Quality and Leachate Monitoring Plan for Increment 1

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Buildout at Seminole Generating Station," dated July 16, 2010 (enclosed as Attachment 1), be accepted as a post-certification amendment to the application. This proposed supplement to existing groundwater monitoring is the result of several discussions with the Department's Northeast District Office.

The attached report, provided with the seal of a Florida Professional Engineer, describes monitoring quality assurance procedures, the locations of the proposed background and upgradient monitoring wells, leachate sampling location, sampling parameters, and several additional details.

Again, this request is separate and distinct from the previous submittal of construction drawings and calculations under Condition of Certification XII.D., which is being evaluated through post-certification review procedures. With this letter, Seminole requests concurrence from the Office of Siting Coordination that the groundwater and leachate monitoring plan set forth in the attached report is accepted as a post-certification amendment to the Site Certification Application.

Very truly yours,

Mike Roddy
Manager of Environmental Affairs
Seminole Electric Cooperative, Inc.

cc: Ann Seiler
Toni Sturtevant
James Alves

WATER QUALITY AND LEACHATE MONITORING PLAN

For

INCREMENT 1 BUILDOUT AT

SEMINOLE GENERATION STATION

July 16, 2010

1.0 Introduction

This Water Quality and Leachate Monitoring Plan (Plan) is for the FGD Landfill Increment 1 Buildout (Buildout) at the Seminole Generation Station (SGS) in Palatka, Florida. This Plan addresses for the Buildout the additional groundwater monitoring wells, and the location, design, sampling and testing requirements for those wells. The Plan is based on the site hydrogeological investigation, and is designed to meet the Florida Department of Environmental Protection (Department) requirements of Rule 62-701.510, F.A.C. Water Quality and Leachate Monitoring Requirements as applied to an electric utility solid waste disposal facility. The primary SGS fuel is bituminous coal and Petroleum Coke (Pet coke) when it is available. The primary waste placed in the disposal facility is fly ash.

a. Plan Certification

This Water Quality and Leachate Monitoring Plan is signed, dated and sealed by the PG or PE who prepared it as given on the final page. (Rule 62-701.510(2) (a), F.A.C.)

b. Water Quality Monitoring Quality Assurance

All fieldwork conducted in connection with the Plan shall be undertaken in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001-01 dated March 31, 2008 as referenced in Rule 62-160.210(1), F.A.C. All laboratory analyses undertaken in connection with the facility's Water Quality Monitoring Plan shall be conducted by firms that are certified by the Department of Health Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300(1), F.A.C., and in accordance with the schedule referenced in Rule 62-160.300(2), F.A.C. The SOPs utilized and the laboratory's list of certified test methods and analytes must specifically address the types of sampling and analytical work that are required by applicable provisions of Rule 62-701.510, F.A.C. and shall be implemented by all persons performing sample collection or analysis related to the Buildout. Alternate field procedures and laboratory methods may be used if approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C., respectively.

c. Groundwater Monitoring Wells

The locations for the existing FGD Landfill monitoring wells and background well and the five proposed detection wells for the Buildout are shown on Sheets 1 and 2 entitled "Groundwater Monitoring Plan – Monitoring Well Locations". Based on the location of the background well for the FGD Landfill, which is south of the Buildout and previous studies, the groundwater flows towards the north. Two additional upgradient wells are to be placed approximately 1000 feet apart on the south side of the Buildout. Three additional down gradient wells are to be spaced 500 feet apart along the east side. All wells are to be located approximately 30 feet from the edge of the waste and the top of the screen will be set approximately one foot above the seasonal high groundwater table. These wells will monitor the shallow surficial aquifer. No additional groundwater monitoring wells are proposed along the west side of the Buildout due to the influence of the adjacent Effluent Processing Facility and Treatment Ponds on the groundwater quality. No additional groundwater monitoring wells are proposed on the north side of the Buildout since the Buildout on the north side is contiguous with the existing FGD Landfill.

The installation details and well screen elevations are shown on Sheet 3. The wells will be installed per the construction notes. All wells shall be clearly labeled, easily visible at all times, and locked to prevent unauthorized access.

d. Leachate Sampling Locations

Leachate samples shall be taken from the leachate collection system where the pipe discharges into Pond 8 as shown on Sheet 2 of 3. If there is liquid in the leachate detection system, that liquid shall also be sampled and tested.

e. Initial and Routine Sampling Frequency and Requirements

1) Initial Groundwater Sampling and Analysis

Within one (1) week of well completion and development, each new well shall be sampled for the parameters listed in Tables 1 and 2 to establish initial groundwater quality for each new well.

2) Routine Leachate Sampling and Analysis

Leachate shall be sampled and tested once a year in the fourth quarter for the parameters listed in Tables 1 and 2.

3) Routine Groundwater Sampling and Analysis

All wells shall be sampled and analyzed for the groundwater monitoring parameters listed in Tables 1 and 2. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method detection limits must meet, or be lower than that parameter's Maximum Contaminant Level in order to demonstrate compliance with Class G-II Ground Water Standards referenced in Chapter 62-550, F.A.C. Compliance with groundwater standards shall be based on unfiltered samples.

4) Routine Surface Water Sampling and Analysis

No new surface water sampling and analysis is proposed for the Buildout.

f. Verification/Evaluation Monitoring

If at any time monitoring parameters are detected at the boundary of the facility's zone of discharge at concentrations exceeding background water quality or the Department's water quality standards or criteria, SECI has thirty (30) days within receipt of the laboratory data to resample the monitor well(s) to verify the original analysis. Should SECI choose not to resample, the Department will consider the water quality analysis representative of current groundwater conditions at the facility, and evaluation monitoring/corrective action as described in Rule 62-701.510(7), F.A.C. may be required.

TABLE 1 SEMIANNUAL FIELD TESTING PARAMETERS
Static water level before purging to the nearest 0.01 foot
Specific conductivity
pH
Dissolved oxygen
Turbidity
Temperature
Colors and Sheens by observation

TABLE 2 SEMIANNUAL LABORATORY TESTING PARAMETERS
Arsenic
Barium
Beryllium
Boron
Cadmium
Chloride
Chromium
Copper
Gross Alpha
Iron
Lead
Mercury
Nickel
Selenium
Silver
Sulfate
Total Organic Carbon (TOC)
Total Organic Hydrocarbons (TOH)
Vanadium
Zinc

g. Water Quality and Leachate Reporting Requirements

1) Semi-annual Report Requirements

All ground water analyses shall be reported to the Department by July 28th and January 28th of each year for the semi-annual periods January-June and July-December, respectively. The results of the annual leachate quality analyses shall be reported by January 28th of each year. The items listed in Rule 62-701.510(9) (a), F.A.C., including, but not limited to, a ground water contour map representing conditions at the time of ground water sampling shall be submitted with each set of analytical results. All exceedances of water quality standards shall be noted. The results shall be sent to: Solid Waste Section, Florida Department of Environmental Protection, Northeast District Office, 7825 Bay Meadows Way, Ste B200, Jacksonville, Florida 32256-7590 and Saint Johns River Water Management District, P.O. Box 1429, Palatka, Florida 32178-1429.

2) Electronic Format for Data Submittal

Water quality data will be submitted to the Department in an electronic format consistent with the requirements for importing into Department databases.

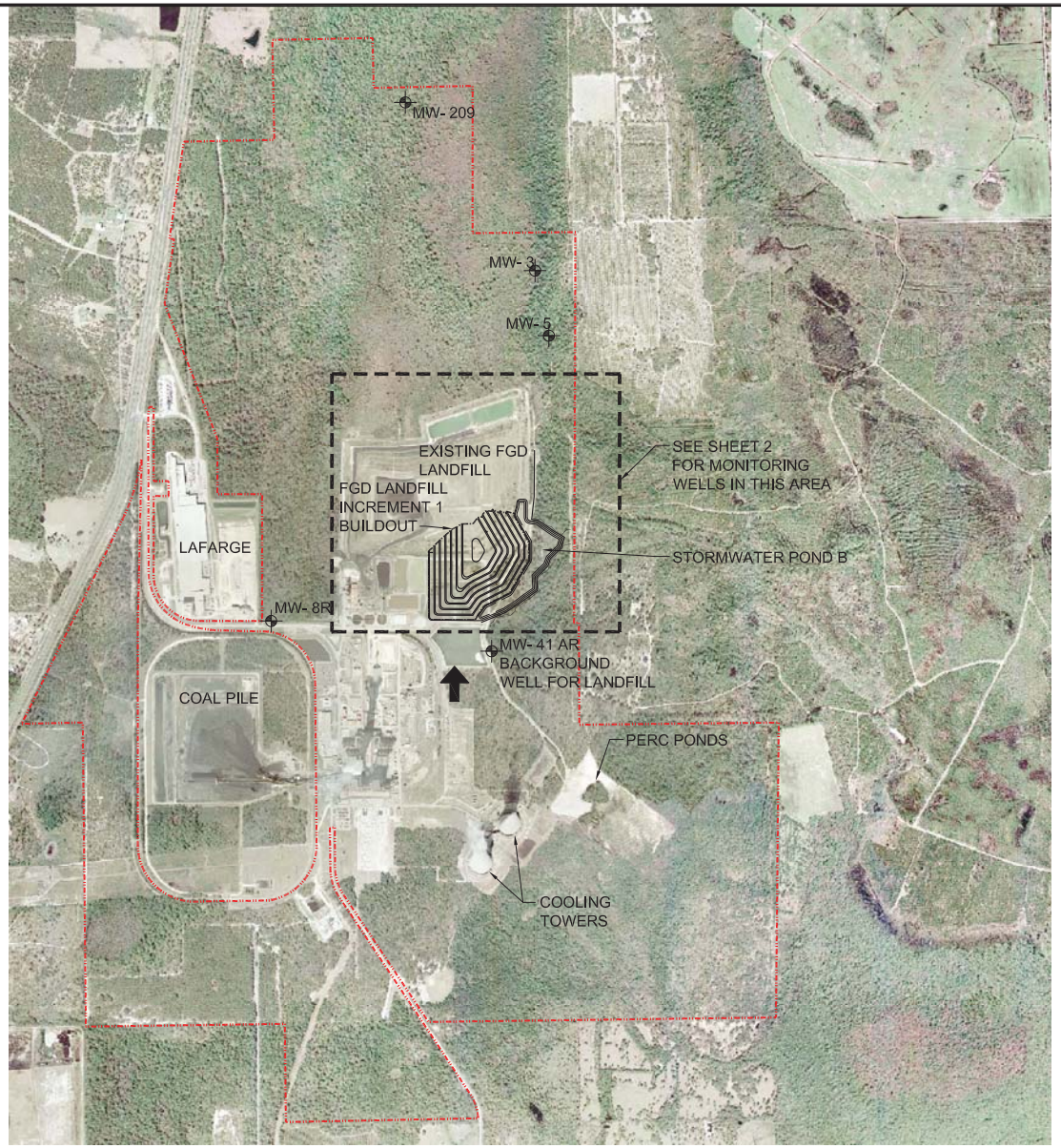
3) Water Quality Monitoring Plan Evaluation

SECI shall submit an evaluation of the Water Quality and Leachate Monitoring Plan to the Department after the second year of monitoring. The evaluation shall include the applicable information as required by Rule 62-701.510 (9), F.A.C., and shall include an evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions and determine the necessity for modifying or continuing the program and recommendation for the date of the next Plan evaluation.

This Water Quality and Leachate Monitoring Plan prepared by:

_____

Joseph L. Miller, P.E. #39177
PBS&J
482 South Keller Road
Orlando, Florida 32810



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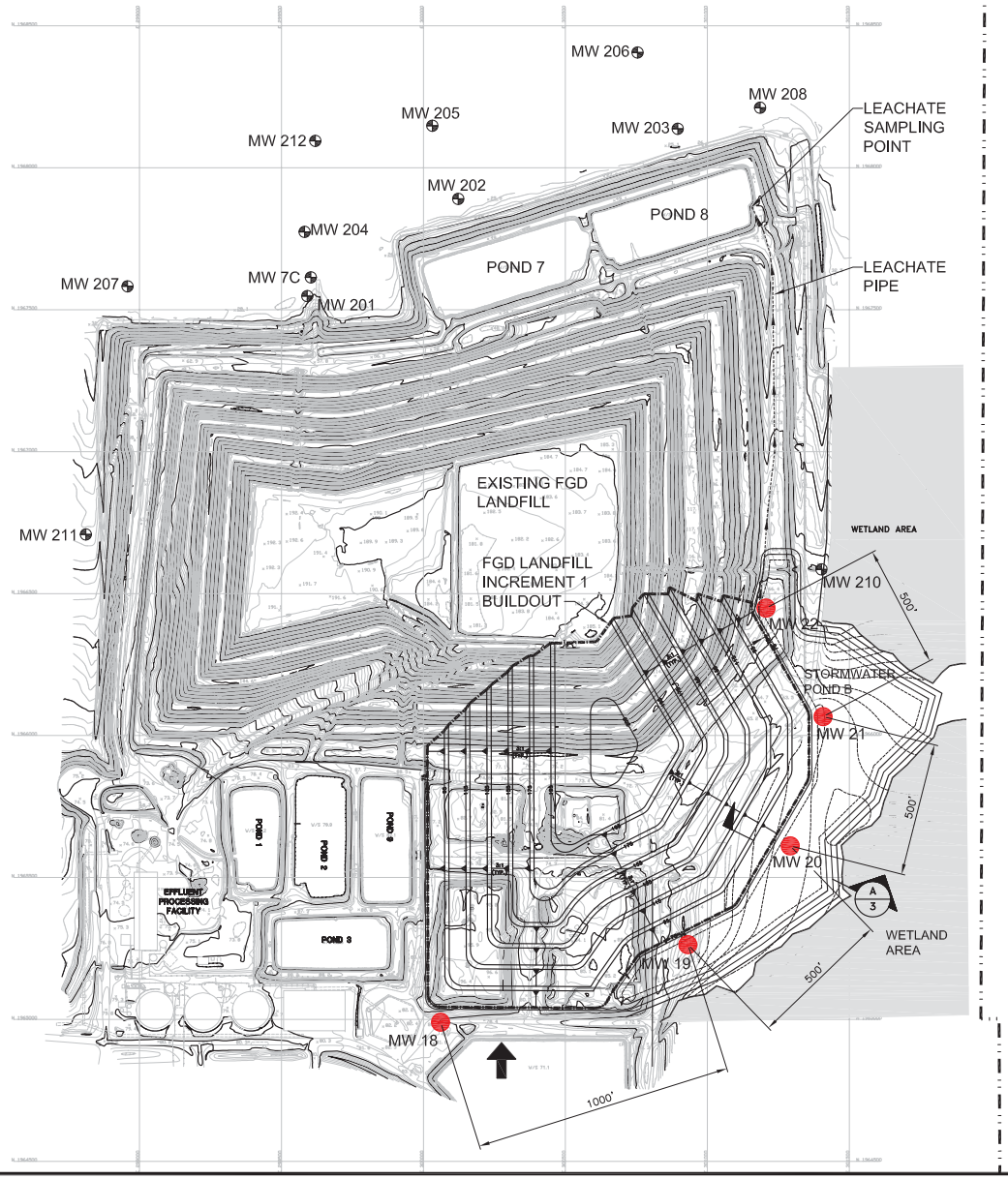
CLIENT	PROJECT	TASK
SEMINOLE ELECTRIC COOPERATIVE, INC (SECI)	INCREMENT 1 BUILDOUT AT SEMINOLE GENERATING STATION (SGS)	GROUNDWATER MONITORING PLAN MONITORING WELL LOCATIONS

ORIGINAL JULY 2010
REVISIONS:
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.

Name:
Florida P.E. No.:
Address: PBS&J 482 S. Keller Road Orlando, FL 32810-6101
Signature Date

JOB NO.100013496
DRAWN RGC
DESIGN RGC/JLM
CHECKED JLM
Q.C. DED

SHEET 1/3



NORTH

0 100 200 400

GRAPHIC SCALE
SCALE: 1" = 200'

LEGEND:

- PUMP STATION
- MW- 7C — EXISTING MONITORING WELL LOCATION
- MW- 18 — PROPOSED MONITORING WELL LOCATIONS FOR INCREMENT 1 BUILDOUT
- DIRECTION OF GROUNDWATER FLOW
- LIMITS OF FGD LANDFILL INCREMENT 1 BUILDOUT
- PROPERTY BOUNDARY

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SHEET 2/3

CONSTRUCTION NOTES:

1. SECI MUST GIVE AT LEAST 72 HOURS NOTICE TO THE DEPARTMENT'S NORTHEAST DSTRICT OFFICE PRIOR TO THE INSTALLATION OF ANY NEW MONITORING WELLS.

2. NEW MONITORING WELLS SHALL BE INSTALLED BY A FLORIDA LICENSED WATER WELL CONTRACTOR. WELL DESIGN, INSTALLATION AND DEVELOPMENT MUST BE IN ACCORDANCE WITH ASTM D-5092 (1995) E1-STANDARD PRACTICE FOR DESIGN AND INSTALLATION OF GROUND WATER MONITORING WELLS IN GRANULAR AQUIFERS AND THE FOLLOWING DOCUMENTATION MUST BE SUBMITTED TO FDEP, SJRWMD WITH COPIES TO THE OWNER AND ENGINEER.

   A. WITHIN 30 DAYS OF ANY NEW MONITORING WELL INSTALLATION, A MONITORING WELL COMPLETION REPORT ON FDEP FORM 62-520.900(3).

   B. A SURVEY DRAWING SHALL BE SUBMITTED IN ACCORDANCE WITH F.A.C. RULE 62-701.510(3) (D) (1). SHOWING THE LOCATION OF ALL MONITORING WELLS (ACTIVE AND ABONDONED) HORIZONTALLY LOCATED IN DEGREES, MINUTES AND SECONDS OF LATITUDE AND LONGITUDE, AND THE ELEVATION OF THE TOP OF THE WELL CASING TO THE NEAREST 0.01 FOOT. NATIONAL GEODETIC VERTICAL DATUM. THE SURVEYED DRAWING SHALL INCLUDE THE MONITOR WELL IDENTIFICATION NUMBERS, LOCATIONS AND ELEVATIONS OF ALL PERMANENT BENCHMARKS AND /OR CORNER MONUMENT MARKER AT THE SITE. THE SURVEY SHALL BE CONDUCTED BY A FLORIDA REGISTERED SURVEYOR.

3. ALL REPORTS SHALL BE SENT TO: SOLID WASTE SECTION, DEPARTMENT OF ENVIRONMENTAL PROTECTION, NORTHEAST DISTRICT OFFICE, 7825 BAY MEADOWS WAY, STE B200, JACKSONVILLE, FL 32256-7590, AND SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), P.O. BOX 1429, PALATKA, FL 32178-1429

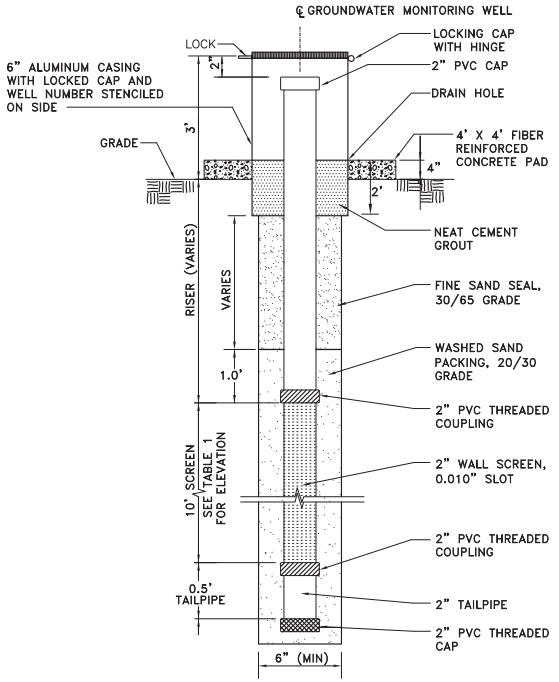


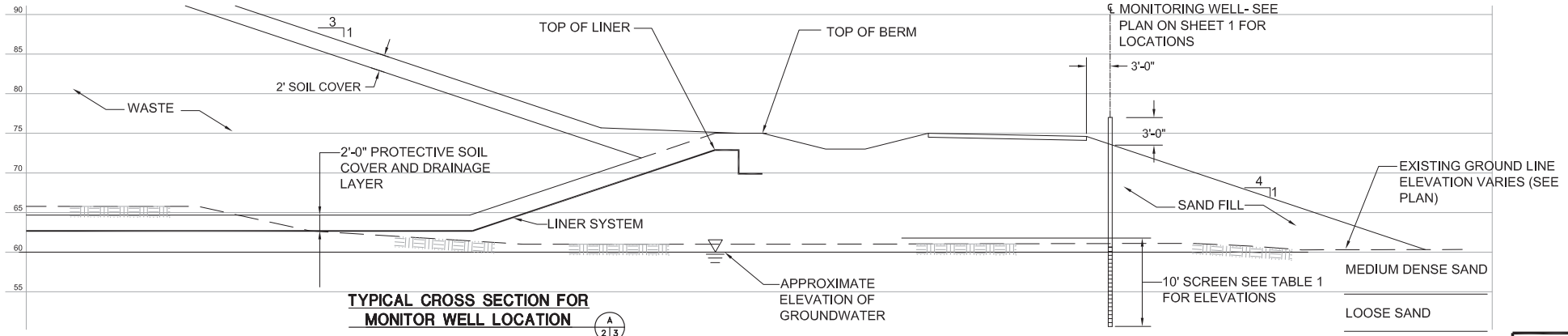
TABLE 1

WELL	ELEVATION OF SCREEN INTERVAL (FEET-NGVD)
MW-18	60-70
MW-19	49-59
MW-20	49-59
MW-21	49-59
MW-22	49-59

NOTE:
TOP OF SCREEN SHALL BE SET 1 FOOT ABOVE SEASONAL HIGH WATER TABLE.

GROUNDWATER MONITORING WELL DETAIL

SCALE: N.T.S.



TYPICAL CROSS SECTION FOR MONITOR WELL LOCATION

A 2|3

SCALE: 1"= 10'-0"

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