Hillsborough County
Florida
Office of the County Administrator
Michael S. Merrill

December 22, 2010

Ms. Susan Pelz, P.E.
Program Manager, Solid Waste
Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

RE: **Sinkhole Action Plan**
Hillsborough County Southeast County Landfill
FDEP Permit No. 35435-014-SO/01

Dear Ms. Pelz:

As previously discussed, provided herein is a Sinkhole Action Plan (Plan) for evaluating and remediating the sinkhole that developed within Phases I-VI at the Southeast County Landfill. The following Plan provides an executive summary, proposed action plan for evaluating the environmental monitoring networks within the proximity of the sinkhole, a phased approach to remediating the sinkhole, and approach for repairing the landfill's clay liner. In addition, an estimated schedule has been developed for performing the evaluation and remediation measures.

EXECUTIVE SUMMARY

On Tuesday afternoon, December 14, 2010, a sinkhole developed along the west side of Phase VI, within the landfill footprint of Phases I-VI, at the Hillsborough County (County) Southeast County Landfill (SCLF). The site's landfill operator ceased placing waste in Phases I-VI and relocated the active working face to Section 9 of the Capacity Expansion Area (CEA). The County has acted in a timely manner in organizing appropriate County staff, engineers, sinkhole experts, and other pertinent resources to begin addressing the sinkhole issue, prepare preliminary plans to remediate the sinkhole, and monitoring for potential impacts to the environment. As of December 22, 2010, the sinkhole is approximately 108 feet wide at the surrounding surface and the depth of the sinkhole is approximately 60 feet below pre-sinkhole grade.

In the early 1980s, the site for SCLF was selected given that the area was not prone to sinkhole development. As such, the development of a sinkhole in this area of Hillsborough County is

unusual. The cause of the sinkhole at the SCLF is not known at this time. However, the Floridan groundwater monitoring wells in the sinkhole area indicates a significant decrease in water table elevations over the past few weeks. The potential cause of the sinkhole will be assessed at a later date. Of primary importance is remediating the sinkhole, monitoring for potential impacts to the environment, and if necessary, remediating impacts to the environment.

Based on the County's initial assessment of the sinkhole and potential impacts to the environment, the following items are of interest:

1. The approximate ratio of volume of waste/soil displaced into the sink hole is 70 percent waste (of which approximately 50 percent is ash) and 30 percent soils.

2. The top of clay liner in this area was last approximated at elevation 117' NGVD (based upon clay consolidation estimates).

3. The top of intermediate cover at the center of the sinkhole area was at approximately 150' NGVD (based on the most recent topographic survey).

4. The clay liner in this area slopes to the east. Therefore, the potential for leachate to enter into the sinkhole area is minimal. The County recommends that Temporary Leachate Pump Station 6 (TPS-6) continue to operate to draw down leachate head within the west area of Phases I-VI. In addition, there has been no apparent change in the daily volume of leachate collected at Pump Station "B."

5. During the week of December 20, 2010, Pickett & Associates surveyed the settling plates for the liner top of clay at the location of the Pump Station B sump, located in the middle of Phases I-VI. The surveyed elevations (provided to the FDEP in a recent sinkhole daily status report) show practically no change from the measurements in October 2010. These top of clay elevations and unchanged leachate pump flows indicate no impact to the leachate collection system or the surrounding bottom liner grades (e.g., no apparent change in bottom liner gradient).

6. Berms and stormwater piping have been installed to divert stormwater away from the sinkhole area.

7. The County has submitted a groundwater monitoring plan (see Attachment 1) for wells within the proximity and down gradient of the sinkhole area, including installing additional Floridan and Surficial groundwater monitoring wells, TH-72 and TH-73, respectively.

The County has developed a proposed action plan and schedule for monitoring of the groundwater and surface water monitoring networks within the proximity of the sinkhole area, remediating the sinkhole, and repairing the clay liner. Upon concurrence of the County's

proposed action plan by the FDEP, the County will begin implementation of the remediation and monitoring measures.

PROPOSED ACTION PLAN

The County has assembled a project team consisting of County staff, engineering consultants, and sinkhole experts to prepare and implement a Sinkhole Action Plan (Plan) for remediating the sinkhole and to repair the clay liner within the impacted area of Phase VI. The Plan addresses four key areas including:

- Notifications of the sinkhole to the Florida Department of Environmental Protection (FDEP), Hillsborough County Environmental Protection Commission (EPC), County officials, and other appropriate stakeholders.

- Prepare and implement monitoring of the groundwater and surface water monitoring network within the proximity of the impacted area. Install two additional groundwater monitoring wells (Floridan and surficial aquifer, TH-72 and TH-73, respectively), down-gradient and west of the impacted area. In addition, perform sampling and analyses of irrigation and water supply wells as requested by the FDEP.

- Perform an investigation of the sinkhole, prepare a sinkhole remediation plan, and implement the sinkhole remediation plan.

- Repair the clay liner system within the impacted area.

Provided below are summaries of proposed actions for each of the above action items.

NOTIFICATIONS

In accordance with the SCLF's permit, the FDEP, EPC, County officials, and other appropriate stakeholders were immediately notified of the sinkhole upon discovery on December 14, 2010. The County immediately assembled a team consisting of County staff, engineers, geologists, and sinkhole experts to begin preparing a Draft Sinkhole Action Plan to monitor the sinkhole, monitor groundwater and surface water quality, prepare an initial plan for remediating the sinkhole, and begin assessing options for repair of the impacted clay liner. The Draft Sinkhole Action Plan and FDEP's letter dated December 15, 2010, were discussed with the FDEP, EPC, and other stakeholders during a meeting at the SCLF on December 17, 2010.

GROUNDWATER, SURFACE WATER, AND WELL WATER QUALITY MONITORING PLAN

Based on the FDEP's letter dated December 15, 2010 (see Attachment 2) and subsequent discussions during the meeting with FDEP staff on December 17, 2010, the County prepared an

Initial Assessment Monitoring Plan (IAMP – see Attachment 1) for the area(s) potentially impacted by the development of the sinkhole. The IAMP was submitted to the FDEP-Southwest District on December 21, 2010. As part of the IAMP, two additional groundwater monitoring wells will soon be installed west and down-gradient of the sinkhole area, including a Floridan well (TH-72) and a Surficial aquifer well (TH-73). The submitted IAMP proposes to sample nine groundwater monitoring wells, three surface water points, and select private water wells. The sampling of the groundwater wells and surface water points will be performed on a monthly basis unless the analysis results dictate otherwise. Please see the attached IAMP for a more detailed approach to the monitoring of groundwater and surface water. Impacts to groundwater and/or surface water, if any, will be addressed on a case by case basis.

SINKHOLE INVESTIGATION AND REMEDIATION

Existing documentation and data is currently under review for assessing the geology and groundwater tables within the impacted area. The investigation of the sinkhole and subsequent remediation will be performed in a phased approach. Prior to the implementation of each phase, a detailed plan will be submitted to the FDEP for review and comment. Provided below is a summary of each approach phase.

Phase I - Initial Remediation/Stabilization Plan

The initial remediation action plan is to stabilize the sinkhole with injection of concrete grout into the area of the sinkhole. Using angular drilling methodology, the grout will be injected under the plug of waste and soils that have been deposited/wedged in the bottom of the sinkhole. The initial grout plug will stabilize the sinkhole and minimize the potential for leachate and/or additional waste to enter into the vertical part of the sinkhole. In addition, the stabilization of the sinkhole will allow for the excavation of waste and soil around the sinkhole for further geotechnical and geophysical investigations. The initial remediation plan for stabilizing the sinkhole will be submitted to the FDEP for review and comment prior to implementation.

Phase II - Excavation Plan

Once the sinkhole has been stabilized, waste and soils will be excavated within the proximity of the sinkhole to provide for a safe working environment for further investigation and remediation. An excavation plan will be prepared and submitted to the FDEP for review and comment prior to implementation.

Phase III - Geotechnical and Geophysical Investigation

Once the slopes within the proximity of the sinkhole have been excavated to provide for a safe working environment, a comprehensive geotechnical and geophysical investigation will be performed to understand the lateral and vertical extent of the sinkhole and surrounding karst formation, potentially including the installation of geotechnical borings and cross-hole

tomography. A summary report of the findings from the investigation will be prepared and submitted to the FDEP for review. In addition, the findings from the investigation will be the basis for the final remediation actions.

Phase IV - Permanent Remediation Plan

Based on the results of the geotechnical and geophysical investigations, a final remediation plan will be prepared. Final actions may include additional efforts to stabilize and seal the sinkhole using grout. A final remediation plan will be submitted to the FDEP as part of the results of the investigation. Once comments are received from FDEP, the final remediation plan will be implemented. A final sinkhole remediation report will be prepared and submitted to the FDEP.

REPAIR OF CLAY LINER

Once the implementation of the final remediation plan has been completed, the repair of the bottom clay liner will commence. A detailed clay liner repair plan will be submitted to the FDEP for review and comment. The configuration of the clay liner likely will include the use of geocomposite clay liner (GCL), geosynthetics, and clay. The proposed repair to the impacted clay liner will be equal to or greater than the pre-sinkhole liner system in terms of permeability and structural strength. Construction Quality Assurance (CQA) will be performed during the repair of the clay liner and a Certification of Construction Completion Report will be submitted to the FDEP, including all CQA testing data and reports

SCHEDULE

Attached (see Attachment 3) is an estimated schedule for performing the above action items. The goal is to complete all field activities by the end of June 2011, prior to the beginning of the rainy season. This schedule is aggressive and pending the results of the investigation, issues during the remediation efforts, and/or impacts due to weather, the duration of the sinkhole remediation and repair of the clay liner system may be longer. The schedule will be updated on a periodic basis based on progress of the work. Updates to the schedule, as warranted, will be submitted to the FDEP on a monthly basis.

ADDITIONAL DISCUSSION

Most of the items included in the attached FDEP letter dated December 15, 2010 (see Attachment 2) have been responded to in the attached Initial Assessment Monitoring Plan (IAMP – see Attachment 1 – Items 1 - 5). Based on discussions and agreements with the FDEP during the December 17, 2010 meeting, responses to Items 6 – 8 are provided below.

Response to FDEP Item 6 – Pumping at TPS-6

As agreed to by the FDEP, the County will continue to operate leachate pump station TPS-6 to minimize the potential for the buildup of leachate head over the liner within the west perimeter of Phases I-VI.

Discontinue Operation of Landfill Gas Collection and Control System (LFGCCS) in Phases I-VI within a 200-foot Radius of the Sinkhole

The LFGCCS has been shut down using isolation valves to isolate landfill gas (LFG) extraction from within the proximity of the sinkhole. As discussed with FDEP staff, a new isolation valve will be installed along the north/northwest leg of the LFGCCS header to maximize LFG extraction from Phases I-VI while ensuring that the area within and/or near the sinkhole is unaffected by negative pressure (no vacuum from LFGCCS within 200 feet of the sinkhole).

Continue to Provide Daily Status Reports to the FDEP

The County will continue to provide the FDEP with daily status reports of the sinkhole issue.

RESUME PERMITTED FILL SEQUENCE PLAN

As a result of the development of the sinkhole in Phase VI, the active working face has been relocated from Phase I (within Phases I-VI) to Section 9 (within the CEA). It is the County's intent to resume the permitted fill sequence plan once the initial sinkhole remediation plan has been implemented and completed.

The County appreciates the FDEP's recent and future cooperation and coordination regarding the remediation of the sinkhole, repair of the clay liner, and monitoring of the environment. We are prepared to immediately begin these efforts upon acceptance of this Plan by the FDEP. As you are aware, time is of the essence in order to minimize the potential for impacts to the environment. Therefore, your prompt review of this plan and future submittals will be appreciated and will assist in expediting the sinkhole remediation and repair to the clay liner.

Please let us know if you have any questions or require additional information.

Sincerely,

for Patricia V. Berry, Manager
Public Utilities Department
Solid Waste Management Division
Landfill/Environmental Services Section

Attachments

cc: Paul Vanderploog, Director, PUD
Barry Boldissar, PUD/SWMD
Bart Weiss, PUD
Larry Ruiz, PUD/SWMD
Dave Adams, PUD/SWMD
Michelle Van Dyke, PUD
Richard Tedder, FDEP Tallahassee
Steve Morgan, FDEP, Southwest District
John Morris, FDEP, Southwest District
Paul Schipfer, EPC
Ernest Ely, WM
Richard Siemering, HDR
Sam Upchurch, SDII
Joe O'Neill, CDS
Brian Miller, DOH

ATTACHMENT 1

INITIAL ASSESSMENT MONITORING PLAN SUBMITTED TO FDEP ON DECEMBER 21, 2010

Hillsborough County
Florida
Office of the Interim County Administrator
Michael S. Merrill

December 22, 2010

Mr. John Morris, P.G.
Department of Environmental Protection
Waste Management Section
13051 Telecom Parkway
Temple Terrace, FL 33637

RE: **Hillsborough County Southeast County Landfill**
Initial Assessment Monitoring Plan – Sinkhole

Dear Mr. Morris:

The Hillsborough County Public Utilities Department (PUD), Solid Waste Management Division (SWMD) is pleased to provide this Initial Assessment Monitoring Plan (IAMP) to address potential impacts from the sinkhole discovered on December 14, 2010 within Phase VI of the original landfill footprint at the Southeast County Landfill (SCLF). A site diagram is provided in Attachment 1. It should be noted that the Florida Department of Environmental Protection (FDEP) conducted an inspection of the SCLF on December 13, 2010, and the area where the sinkhole formed did not exhibit any evidence of subsidence at the time of the inspection. Additionally, upon discovery of the sinkhole, the SWMD staff immediately began to assess the conditions at the site, and we appropriately notified FDEP of the situation. Several measures were implemented prior to the FDEP meeting with a focus on developing an action plan for assessment and remediation of the sinkhole. The SWMD Landfill & Environmental Services Section along with HDR Engineering began this assessment late in the day on Tuesday, prior to any feedback or directives from the FDEP, and the following actions, which were discussed and developed by the SWMD and HDR, were implemented during the week to provide daily updates and information pertinent to any future actions.

1) Water levels were recorded at all sixty (60) groundwater and surface water data points across the SCLF on 12/15, 12/16, and 12/17. The data sheets from these three days and December 20, 2010 are provided in Attachment 2.

2) The depth of the sinkhole was measured utilizing a 300 ft. tape and a rope and makeshift pulley system. The hole was measured at approximately 60 ft. deep (measured from pre-settled landfill grades) and 80 feet across (not including surface cracks).

3) A home video camera was attached to the tape pulley system and two video clips were obtained, one with the camera positioned horizontally and one with the camera positioned vertically downward. The information obtained from these efforts has documented that no standing water or leachate was observed in the hole, and there was no observed dripping moisture or leachate seeps coming from the side walls within the landfill. No groundwater seeps were observed as the camera passed deeper into the throat of the hole.

4) HDR Engineering brought in a team of sinkhole experts from SDII led by Dr. Sam Upchurch to provide expertise in the field of karst geology and advise on the assessment and remedial strategies to effectively address the sinkhole and potential impacts, if any.

5) The SWMD assembled this team of experts and met on Thursday, December 16, 2010, for most of the day to effectively address the sinkhole and develop the action plan. The FDEP letter dated December 15, 2010 was reviewed and discussed. The outcome of these efforts was to develop a draft action plan, which was discussed in detail with the FDEP during the meeting held on Friday, December 17, 2010.

6) The SWMD along with several experts from HDR, SDII, and Civil Design Services, met with several representatives of the FDEP including staff from the Southwest District and Tallahassee. Additionally, representatives from the Florida Geologic Survey attended via teleconference.

The FDEP letter dated December 15, 2010 was thoroughly discussed during the meeting on December 17, 2010, and each comment was addressed by the technical team. The result of this discussion and conclusions from the meeting was that the SWMD would provide this IAMP to the FDEP by the close of business December 20, 2010.

INITIAL ASSESSMENT MONITORING PLAN

The SWMD has developed the Initial Assessment Monitoring Plan (IAMP) and will be implementing the proposed actions in three phases.

PHASE I

Beginning on Tuesday December 21, 2010, the SWMD shall conduct sampling activities at select groundwater monitoring wells on site, the three surface water sites in the tributary to Long Flat Creek, and select private supply wells in the area. It should be noted that these private wells are located up gradient and cross gradient to the SCLF, and are being sampled to address citizen concerns presented to the FDEP. The list of sites to be sampled is as follows:

Surficial aquifer wells

- P-18S
- TH-28A
- TH-57
- TH-58

Floridan aquifer wells

- TH-19
- TH-40
- TH-42

Surface water sites

- 3A
- 3B2B
- 3C2

Select private supply wells

- Robert Martin, 16517 County Road 672
- Howard and Irene Barnes, 17502 County Road 672
- Tom Holland, 121 Carter Road
- Harold Weeks, 116 Wendel Avenue
- Wayne and Mary Holdren, 415 Hal Colding Road
- Hillsborough County Sheriff Training Facility – two wells

Each of these locations will be sampled and analyzed for the parameters listed in Specific Condition #E.4.c of Permit No. 35435-014-SO/01 on a one time basis. The results of analyses shall be reviewed and submitted to the FDEP and EPC, as soon as possible.

PHASE II

As agreed to in the meeting with the FDEP on December 17, 2010, the SWMD and HDR will install one new groundwater monitoring well set into the carbonates below the Hawthorne Group sediments. The location has been identified in the field and agreed to by the FDEP during the site visit on December 15, 2010. This well shall be identified as TH-72. A well construction detail diagram for TH-72 is provided in Attachment 3.

Based on internal discussions and review of the subsurface geology in the vicinity of the sinkhole, the SWMD also believes that an additional surficial aquifer groundwater monitoring well is advisable to assess any potential impacts to groundwater in that aquifer. This well shall be installed adjacent to TH-72 and shall be identified as TH-73. A well construction detail diagram for TH-73 is provided in Attachment 3.

These two wells shall be installed utilizing the Roto-sonic method, and well installations will be performed within the next two weeks, depending on the availability of a Roto-sonic drilling rig. The Roto-sonic method is preferred as it will provide a continuous core of the subsurface lithology, and the information gathered shall be provided to the FDEP and EPC.

Based on discussions with the FDEP, if any water bearing units are apparent in the continuous core samples from the Hawthorne unit, the SWMD will install an intermediate monitoring well and appropriately screen that well to address the water bearing unit, based on the thickness of the water bearing unit.

PHASE III

Once the new wells have been installed, additional sampling will be conducted at the following locations.

TH-72
TH-73

The samples collected from these two new monitoring wells shall be analyzed for the parameters listed in Specific Condition #E.4.b of Permit No. 35435-014-SO/01.

*Maran Groves 2
*Maran Groves 6
*Maran Groves 7
*Maran Groves 12
Maran Groves Maintenance Supply

The samples collected from these irrigation supply wells shall be analyzed for the indicator parameters provided in the FDEP's letter dated December 15, 2010, which include Depth to Water, Specific Conductivity, TDS, Chloride, Ammonia, and Sodium.

* These supply wells are very deep and large irrigation supply wells formerly utilized at the Maran Groves site to irrigate the citrus trees. The SWMD has agreed to sample them to assess water quality, even though they are well over a ½-mile from the sinkhole site. Additionally, the pumps are believed to be disconnected and/or no longer present. Therefore the sampling of these wells will require a large submersible pump, and a tri-pod or truck mounted pump reel or some other methodology to obtain representative groundwater samples.

A map depicting the locations of the Maran Groves supply wells is provided in Attachment 4. The map depicting the locations of the seven (7) private supply wells to be sampled is also provided in Attachment 4.

CONTINUATION OF THE IAMP

Upon completion of the actions proposed herein, the SWMD will continue to assess the potential impacts from the sinkhole. The frequency of the future sampling activities is based on the known velocities of groundwater within the surficial and Floridan aquifers at the site. As presented in the HDR Evaluation of Groundwater Monitoring Plan, which was submitted to the FDEP on December 15, 2010, groundwater would be expected to move less than one foot per day within the surficial aquifer and less than 0.1 foot per day within the upper Floridan.

The following provides estimated distances to the existing and proposed groundwater monitoring wells in the vicinity of the sinkhole:

TH-58 = 438 ft (down/cross gradient)
TH-28A = 350 ft (cross gradient)

TH-72 = 140 ft (down gradient in deep aquifer)
TH-73 = 140 ft (down gradient in surficial aquifer)

Based on these distances and the calculated velocities provided in the recent HDR Evaluation of the Groundwater Monitoring Plan, the initially proposed monthly monitoring frequency is more than sufficient to address any potential impacts to either of the two known water bearing units. However, based on conversations with the FDEP on Wednesday, December 22, 2010, the SWMD agrees to conduct the following:

1) On a weekly schedule, collect water level readings of the 60 groundwater and surface water data points on site for the next 6 weeks.

2) On a weekly schedule, collect samples at the seven (7) groundwater monitoring wells listed in Phase I of the IAMP, the two new monitoring wells listed in Phase III of the IAMP, and two (2) supply wells located on site (SCLF Admin and WM Maintenance Bldg.). These points shall be sampled weekly and analyzed for the indicator parameters listed in the FDEP Correspondence dated December 15, 2010, which include Depth to Water, Specific Conductance, TDS, Chloride, Ammonia, and Sodium.

   This sampling frequency shall be continued until the two new monitoring wells TH-72 and TH-73 have been sampled and the data has been received, reviewed and submitted to the FDEP. At that point, the data shall be discussed with the FDEP, and the sampling frequency shall be re-evaluated.

Should you have any questions or if you would like to discuss this matter, please feel free to contact us directly at (813) 276-2955 or (813) 276-2944.

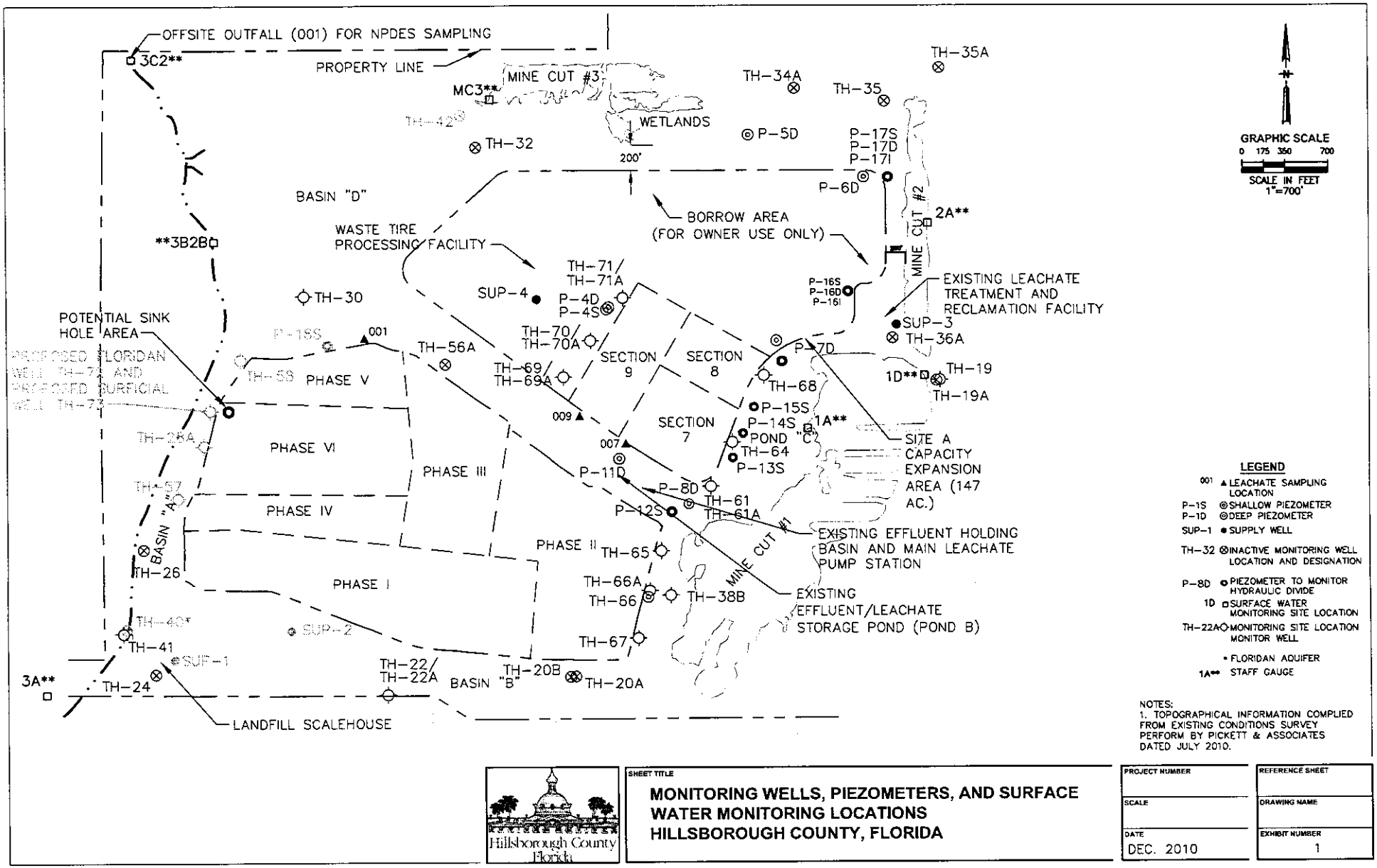
Respectfully submitted,

David S. Adams, P.G. 12/22/2010
Environmental Manager
Public Utilities Department
Solid Waste Management Division

xc: Paul Vanderploog, Director, PUD
Barry Boldissar, PUD/SWMD
Bart Weiss, PUD
Patricia V. Berry, PUD/SWMD
Larry Ruiz, PUD/SWMD
Michelle Van Dyk, PUD
Rich Tedder, FDEP Tallahassee
Susan Pelz, FDEP Southewest District
Steve Morgan, FDEP, Southwest District
Paul Schipfer, EPC
Ernest Ely, WM
Rich Siemering, HDR
Joe O'Neill, Civil Design Services
Brian Miller, DOH

ATTACHMENT 1

SITE DIAGRAM



NOTES:
1. TOPOGRAPHICAL INFORMATION COMPLIED FROM EXISTING CONDITIONS SURVEY PERFORM BY PICKETT & ASSOCIATES DATED JULY 2010.

Hillsborough County Florida

SHEET TITLE

MONITORING WELLS, PIEZOMETERS, AND SURFACE WATER MONITORING LOCATIONS HILLSBOROUGH COUNTY, FLORIDA

PROJECT NUMBER	REFERENCE SHEET
SCALE	DRAWING NAME
DATE: DEC. 2010	EXHIBIT NUMBER: 1

C:\pwworking\tpa\d0256713\Well Location Map - Revised 12-22-10.dwg, Plot, 12/22/2010 1:20:51 PM, BradJohn

ATTACHMENT 2

WATER LEVEL DATA SHEETS

GROUNDWATER AND SURFACE WATER ELEVATIONS FOR

SOUTHEAST LANDFILL

December 15, 2010

Measuring Point I.D.	T.O.C. Elevations (NGVD)	12/15/2010 W.L. B.T.O.C.	W.L. (NGVD)	Time
P-4D	140.78	22.30	118.48	11:42 AM
P-4S	140.95	10.06	130.89	11:43 AM
P-6D	151.94	Dry	Dry	10:55 AM
P-6D-A	148.01	28.21	119.80	11:06 AM
P-7D	138.92	18.49	120.43	12:12 PM
P-8D	138.34	18.80	119.54	11:58 AM
P-11D	138.02	18.01	120.01	11:55 AM
P-12S	134.97	14.91	120.06	12:20 PM
P-13S	140.21	20.04	120.17	12:02 PM
P-14S	138.56	18.36	120.20	12:06 PM
P-15S	139.19	19.00	120.19	12:08 PM
P-16S	143.38	16.64	126.74	11:18 AM
P-16I	144.15	24.55	119.60	11:19 AM
P-16D	143.64	24.80	119.04	11:20 AM
P-17S	137.35	16.50	120.85	11:16 AM
P-17I	137.32	17.80	119.52	11:15 AM
P-17D	137.22	17.81	119.41	11:14 AM
P-18S	129.86	18.80	111.06	10:41 AM
P-19	133.36	14.29	119.07	11:03 AM
P-20	132.38	13.62	118.76	11:25 AM
P-21	122.79	4.16	118.63	11:34 AM
P-22	128.35	9.59	118.76	11:31 AM
P-23	143.13	24.02	119.11	11:29 AM
TH-19*	130.27	117.74	12.53	12:18 PM
TH-20A	131.86	10.60	121.26	12:37 PM
TH-20B	132.57	11.64	120.93	12:36 PM
TH-22	128.82	5.98	122.84	10:07 AM
TH-22A	129.27	6.55	122.72	10:06 AM
TH-24A	128.23	6.48	121.75	10:12 AM
TH-26	125.65	Dry	Dry	10:16 AM
TH-28A	131.10	28.48	102.62	10:35 AM
TH-30	126.88	24.16	104.72	10:44 AM
TH-32	129.90	15.15	114.75	10:47 AM
TH-35	145.98	29.16	116.82	10:59 AM
TH-36A	152.70	33.73	118.97	12:15 PM
TH-38A	130.68	11.15	119.53	12:31 PM
TH-38B	131.61	12.20	119.61	12:32 PM
TH-40*	124.99	116.65	8.34	9:56 AM
TH-41*	125.00	118.70	6.30	9:55 AM
TH-42*	116.74	81.62	35.12	10:50 AM
TH-57	128.36	20.20	108.16	10:18 AM
TH-58	127.86	28.30	99.56	10:36 AM
TH-61	138.73	18.20	120.53	12:00 PM
TH-61A	139.45	18.82	120.63	11:59 AM
TH-64	139.64	18.54	121.10	12:03 PM
TH-65	135.40	15.27	120.13	12:28 PM
TH-66	130.58	10.11	120.47	12:29 PM
TH-66A	130.66	10.59	120.07	12:28 PM
TH-67	129.51	7.58	121.93	12:34 PM
TH-68	140.01	16.74	123.27	12:10 PM
TH-69A	144.97	25.86	119.11	11:53 AM
TH-70A	146.63	27.48	119.15	11:45 AM
TH-71A	146.95	26.54	120.41	11:38 AM
SW-3A	3.0'=125.53'	0.50	123.03	9:53 AM
SW-3B2B	3.0'=97.97'	1.36	96.33	10:47 AM
SW-3C2	6.0'=92.33'	1.26	87.59	10:43 AM
Mine Cut #1	4.0'=122.14'	1.38	119.52	12:41 PM
Mine Cut #2	6.0'=123.47'	1.74	119.21	12:45 PM
Mine Cut #3	4.0'=112.27'	1.40	109.67	12:53 PM
Mine Cut #4	5.0'=97.54'	1.82	94.36	12:56 PM

NGVD = National Geodetic Vertical Datum
T.O.C. = Top of Casing
B.T.O.C. = Below Top of Casing
* = Floridan Well
ND = No Data
W.L. = Water Level

Prepared by: Jim CLayton
QC'd by: Mike Townsel
Final QC by: Dave Adams

self-monthlywl.12.15.10.

GROUNDWATER AND SURFACE WATER ELEVATIONS FOR

SOUTHEAST LANDFILL

December 16, 2010

Measuring Point I.D.	T.O.C. Elevations (NGVD)	12/16/2010 W.L. B.T.O.C.	W.L. (NGVD)	Time
P-4D	140.78	22.22	118.56	12:27 PM
P-4S	140.95	10.05	130.90	12:28 PM
P-5D	151.94	Dry	Dry	11:10 AM
P-6D-A	148.01	28.22	119.79	11:21 AM
P-7D	136.92	16.50	120.42	11:54 AM
P-8D	136.34	16.71	119.63	12:47 PM
P-11D	138.02	17.92	120.10	12:13 PM
P-12S	134.97	14.84	120.13	12:49 PM
P-13S	140.21	20.05	120.16	12:04 PM
P-14S	136.56	16.36	120.20	12:07 PM
P-15S	139.19	19.02	120.17	11:57 AM
P-16S	143.38	16.50	126.88	11:37 AM
P-16I	144.15	24.50	119.65	11:36 AM
P-16D	143.84	24.76	119.08	11:35 AM
P-17S	137.36	16.50	120.85	11:30 AM
P-17I	137.32	17.80	119.52	11:29 AM
P-17D	137.22	17.82	119.40	11:28 AM
P-18S	129.66	18.78	111.08	10:32 AM
P-19	133.36	14.30	119.06	11:12 AM
P-20	132.36	13.60	118.78	11:40 AM
P-21	122.79	4.15	118.64	12:40 PM
P-22	128.35	9.58	118.77	12:37 PM
P-23	143.13	23.93	119.20	12:43 PM
TH-19*	130.27	118.71	11.56	11:46 AM
TH-20A	131.86	10.62	121.24	10:12 AM
TH-20B	132.57	11.65	120.92	10:11 AM
TH-22	128.82	5.92	122.90	10:06 AM
TH-22A	129.27	6.54	122.73	10:05 AM
TH-24A	128.23	6.46	121.77	9:58 AM
TH-26	125.65	Dry	Dry	10:17 AM
TH-26A	131.10	28.56	102.54	10:37 AM
TH-30	128.88	24.12	104.76	10:28 AM
TH-32	129.90	15.12	114.78	10:42 AM
TH-36	145.98	29.16	116.82	11:16 AM
TH-36A	152.70	33.72	118.98	11:51 AM
TH-38A	130.68	11.10	119.58	12:57 PM
TH-38B	131.81	12.15	119.66	12:56 PM
TH-40*	124.89	118.50	6.49	9:57 AM
TH-41*	125.00	120.10	4.90	9:56 AM
TH-42*	116.74	86.66	30.08	10:45 AM
TH-57	128.36	20.11	108.25	10:19 AM
TH-58	127.88	28.31	99.57	10:28 AM
TH-61	138.73	18.19	120.54	12:10 PM
TH-61A	139.45	18.81	120.64	12:07 PM
TH-64	139.64	18.54	121.10	12:06 PM
TH-65	135.40	15.20	120.20	12:52 PM
TH-66	130.58	10.10	120.48	12:55 PM
TH-66A	130.66	10.58	120.08	12:54 PM
TH-67	129.51	7.56	121.95	1:01 PM
TH-68	140.01	16.18	123.83	11:55 AM
TH-69A	144.97	25.78	119.19	12:18 PM
TH-70A	146.63	27.38	119.25	12:23 PM
TH-71A	146.95	26.48	120.47	12:32 PM
SW-3A	3.0'=125.53'	0.01	122.54	9:52 AM
SW-3B2B	3.0'=97.97'	1.38	96.35	10:59 AM
SW-3C2	6.0'=92.33'	1.28	87.61	10:55 AM
Mine Cut #1	4.0'=122.14'	1.40	119.54	11:59 AM
Mine Cut #2	6.0'=123.47'	1.72	119.19	11:46 AM
Mine Cut #3	4.0'=112.27'	1.40	109.67	10:49 AM
Mine Cut #4	5.0'=97.54'	1.81	94.35	10:47 AM

NGVD = National Geodetic Vertical Datum
T.O.C. = Top of Casing
B.T.O.C. = Below Top of Casing
* = Floridan Well
ND = No Data
W.L. = Water Level

Prepared by: Jim Clayton
QC'd by: Mike Townsel
Final QC by: Dave Adams

GROUNDWATER AND SURFACE WATER ELEVATIONS FOR

SOUTHEAST LANDFILL

December 17, 2010

Measuring Point I.D.	T.O.C. Elevations (NGVD)	12/17/2010 W.L. B.T.O.C.	W.L. (NGVD)	Time
P-4D	140.78	22.19	118.59	12:32 PM
P-4S	140.95	9.98	130.97	12:33 PM
P-5D	151.94	Dry	Dry	11:42 AM
P-6D-A	148.01	28.16	119.85	11:49 AM
P-7D	138.92	18.46	120.46	10:30 AM
P-8D	138.34	18.75	119.59	10:18 AM
P-11D	138.02	11.91	126.11	10:20 AM
P-12S	134.97	14.81	120.16	10:16 AM
P-13S	140.21	20.02	120.19	10:40 AM
P-14S	138.56	18.32	120.24	10:37 AM
P-15S	139.19	18.99	120.20	10:34 AM
P-16S	143.38	16.21	127.17	12:07 PM
P-16I	144.16	24.72	119.43	12:08 PM
P-16D	143.84	24.45	119.39	12:09 PM
P-17S	137.35	16.50	120.85	12:16 PM
P-17I	137.32	17.76	119.56	12:17 PM
P-17D	137.22	17.79	119.43	12:16 PM
P-18S	129.86	18.70	111.16	11:15 AM
P-19	133.38	14.25	119.11	11:46 AM
P-20	132.38	13.56	118.82	11:52 AM
P-21	122.79	4.11	118.68	12:26 PM
P-22	128.35	9.52	118.83	12:23 PM
P-23	143.13	23.93	119.20	12:21 PM
TH-19*	130.27	118.40	11.87	11:59 AM
TH-20A	131.86	10.59	121.27	9:59 AM
TH-20B	132.57	11.62	120.95	9:58 AM
TH-22	128.82	5.90	122.92	9:54 AM
TH-22A	129.27	6.52	122.75	9:53 AM
TH-24A	128.23	6.42	121.81	9:45 AM
TH-26	126.65	Dry	Dry	10:53 AM
TH-28A	131.10	28.55	102.55	11:00 AM
TH-30	128.86	24.10	104.78	11:08 AM
TH-32	129.90	15.11	114.79	11:19 AM
TH-35	145.98	29.09	116.89	11:56 AM
TH-36A	152.70	33.70	119.00	12:04 PM
TH-38A	130.68	11.15	119.53	10:05 AM
TH-38B	131.81	12.16	119.65	10:08 AM
TH-40*	124.99	117.31	7.68	10:48 AM
TH-41*	125.00	119.65	5.35	10:47 AM
TH-42*	116.74	88.12	28.62	11:20 AM
TH-57	128.36	20.11	108.25	10:58 AM
TH-58	127.68	28.30	99.68	11:05 AM
TH-61	138.73	18.17	120.56	10:24 AM
TH-61A	139.45	18.80	120.65	10:26 AM
TH-64	139.64	18.50	121.14	10:39 AM
TH-65	135.40	15.22	120.18	10:12 AM
TH-66	130.58	10.10	120.48	10:10 AM
TH-66A	130.66	10.56	120.10	10:09 AM
TH-67	129.51	7.51	122.00	10:03 AM
TH-68	140.01	16.12	123.89	10:32 AM
TH-69A	144.97	25.71	119.26	12:39 PM
TH-70A	146.63	27.32	119.31	12:37 PM
TH-71A	146.96	26.39	120.56	12:29 PM
SW-3A	3.0'=126.53'	0.00	122.53	9:42 AM
SW-3B2B	3.0'=97.97'	1.38	96.35	11:32 AM
SW-3C2	6.0'=92.33'	1.26	87.61	11:37 AM
Mine Cut #1	4.0'=122.14'	1.39	119.53	10:28 AM
Mine Cut #2	6.0'=123.47'	1.75	119.22	11:58 AM
Mine Cut #3	4.0'=112.27'	1.40	109.67	11:26 AM
Mine Cut #4	5.0'=97.54'	1.80	94.34	11:22 AM

NGVD = National Geodetic Vertical Datum
T.O.C. = Top of Casing
B.T.O.C. = Below Top of Casing
* = Floridan Well
ND = No Data
W.L. = Water Level

Prepared by: Jim CLayton
QC'd by: Mike Townsel
Final QC by: Dave Adams

GROUNDWATER AND SURFACE WATER ELEVATIONS FOR

SOUTHEAST LANDFILL

December 20, 2010

Measuring Point I.D.	T.O.C. Elevations (NGVD)	12/20/2010 W.L. B.T.O.C.	W.L. (NGVD)	Time
P-4D	140.78	22.40	118.38	10:35 AM
P-4S	140.95	10.05	130.90	10:36 AM
P-6D	161.94	Dry	Dry	11:35 AM
P-6D-A	148.01	28.30	119.71	11:21 AM
P-7D	138.92	18.50	120.42	1:15 PM
P-8D	138.34	18.88	119.46	10:22 AM
P-11D	138.02	18.05	119.97	10:25 AM
P-12S	134.97	14.98	119.99	10:20 AM
P-13S	140.21	20.02	120.19	1:23 PM
P-14S	138.56	18.35	120.21	1:19 PM
P-15S	139.19	19.00	120.19	1:18 PM
P-16S	143.38	16.22	127.16	11:04 AM
P-16I	144.15	24.85	119.30	11:03 AM
P-16D	143.84	24.59	119.25	11:05 AM
P-17S	137.36	16.60	120.76	11:35 AM
P-17I	137.32	17.84	119.48	11:34 AM
P-17D	137.22	17.88	119.34	11:33 AM
P-18S	129.86	18.80	111.06	12:39 PM
P-19	133.36	14.39	118.97	11:24 AM
P-20	132.38	13.70	118.68	10:56 AM
P-21	122.79	4.15	118.64	10:51 AM
P-22	128.35	9.62	118.73	10:49 AM
P-23	143.13	24.11	119.02	11:00 AM
TH-19*	130.27	117.58	12.69	11:11 AM
TH-20A	131.88	10.60	121.28	10:03 AM
TH-20B	132.57	11.62	120.95	10:02 AM
TH-22	126.82	5.85	122.97	9:57 AM
TH-22A	129.27	6.45	122.82	9:56 AM
TH-24A	128.23	6.40	121.83	9:51 AM
TH-26	125.65	Dry	Dry	1:38 PM
TH-26A	131.10	28.49	102.61	12:59 PM
TH-30	128.88	24.10	104.78	12:36 PM
TH-32	129.90	15.15	114.75	12:15 PM
TH-35	145.98	29.10	116.88	11:18 AM
TH-36A	152.70	33.69	119.01	11:09 AM
TH-38A	130.68	11.20	119.48	10:13 AM
TH-38B	131.81	12.19	119.62	10:14 AM
TH-40*	124.99	115.29	9.70	1:32 PM
TH-41*	125.00	117.20	7.80	1:30 PM
TH-42*	116.74	89.20	27.54	11:39 AM
TH-57	128.36	20.07	108.29	1:36 PM
TH-58	127.88	28.26	99.63	12:53 PM
TH-61	138.73	18.20	120.53	1:06 PM
TH-61A	139.45	18.81	120.64	1:05 PM
TH-64	139.64	18.55	121.09	1:21 PM
TH-65	135.40	15.35	120.05	10:16 AM
TH-66	130.58	10.17	120.41	10:10 AM
TH-66A	130.66	10.61	120.05	10:09 AM
TH-67	129.51	7.54	121.97	10:06 AM
TH-68	140.01	16.54	123.47	1:12 PM
TH-69A	144.97	25.92	119.05	10:29 AM
TH-70A	146.63	27.56	119.07	10:33 AM
TH-71A	146.95	26.66	120.29	10:41 AM
SW-3A	3.0'=125.63'	0.15	122.68	9:48 AM
SW-3B2B	3.0'=97.97'	1.39	96.36	12:31 PM
SW-3C2	6.0'=92.33'	1.29	87.62	12:24 PM
Mine Cut #1	4.0'=122.14'	1.40	119.54	1:09 PM
Mine Cut #2	6.0'=123.47'	1.75	119.22	11:14 AM
Mine Cut #3	4.0'=112.27'	1.45	109.72	12:19 PM
Mine Cut #4	5.0'=97.64'	1.86	94.40	12:17 PM

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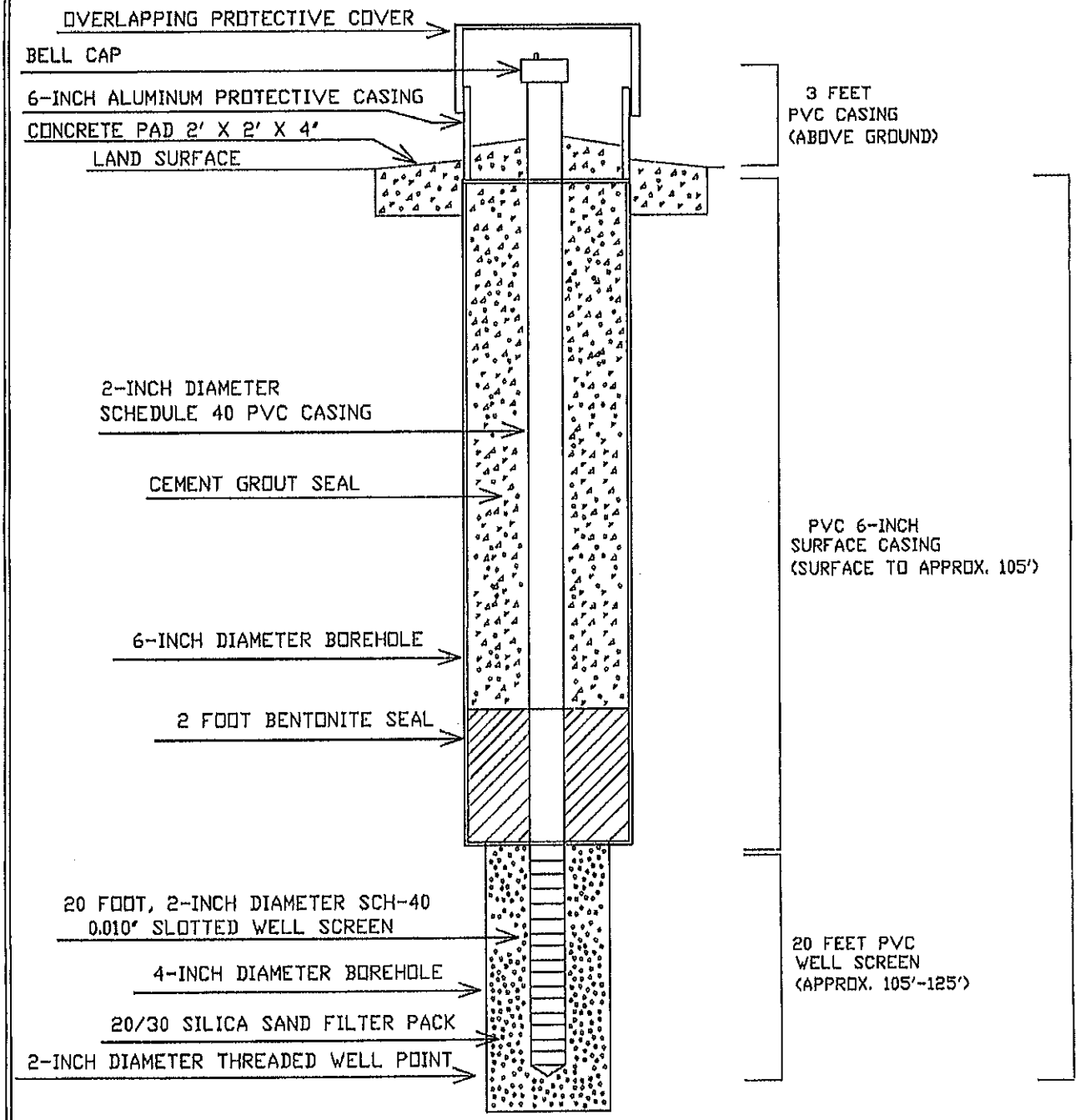
T.O.C. = Top of Casing
B.T.O.C. = Below Top of Casing
* = Floridan Well
ND = No Data
W.L. = Water Level

Prepared by: Jim CLayton
QC'd by: Mike Townsel
Final QC by: Dave Adams

ATTACHMENT 3

WELL CONSTRUCTION DIAGRAM
TH-72 AND TH-73

TH-72

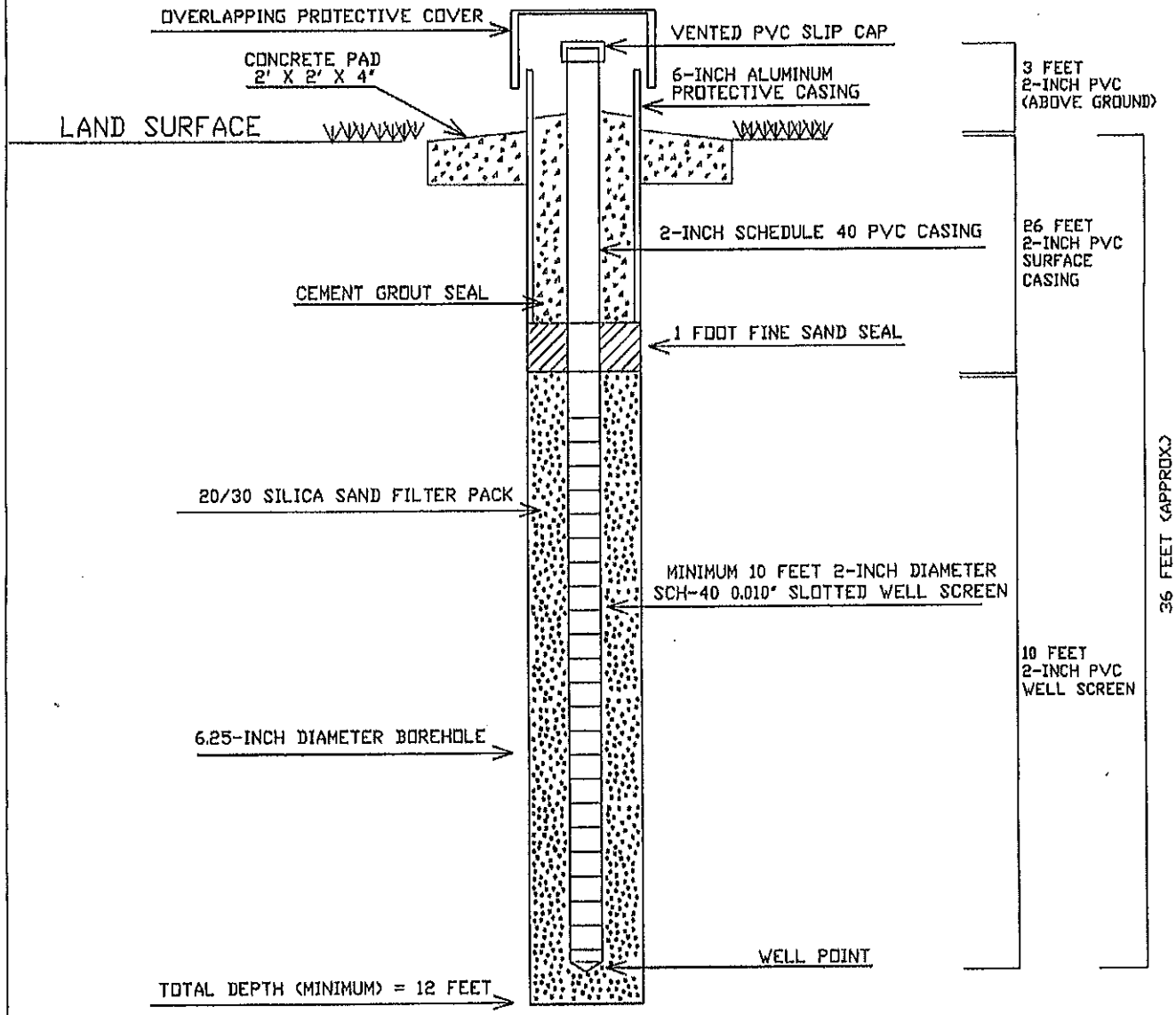


NOT TO SCALE

SOUTHEAST COUNTY LANDFILL
PUBLIC UTILITIES DEPARTMENT
SOLID WASTE MANAGEMENT DIVISION
LANDFILL & ENVIRONMENTAL SERVICES SECTION

MONITOR WELL CONSTRUCTION DETAIL DIAGRAM
GROUNDWATER MONITORING WELL TH-72

TH-73

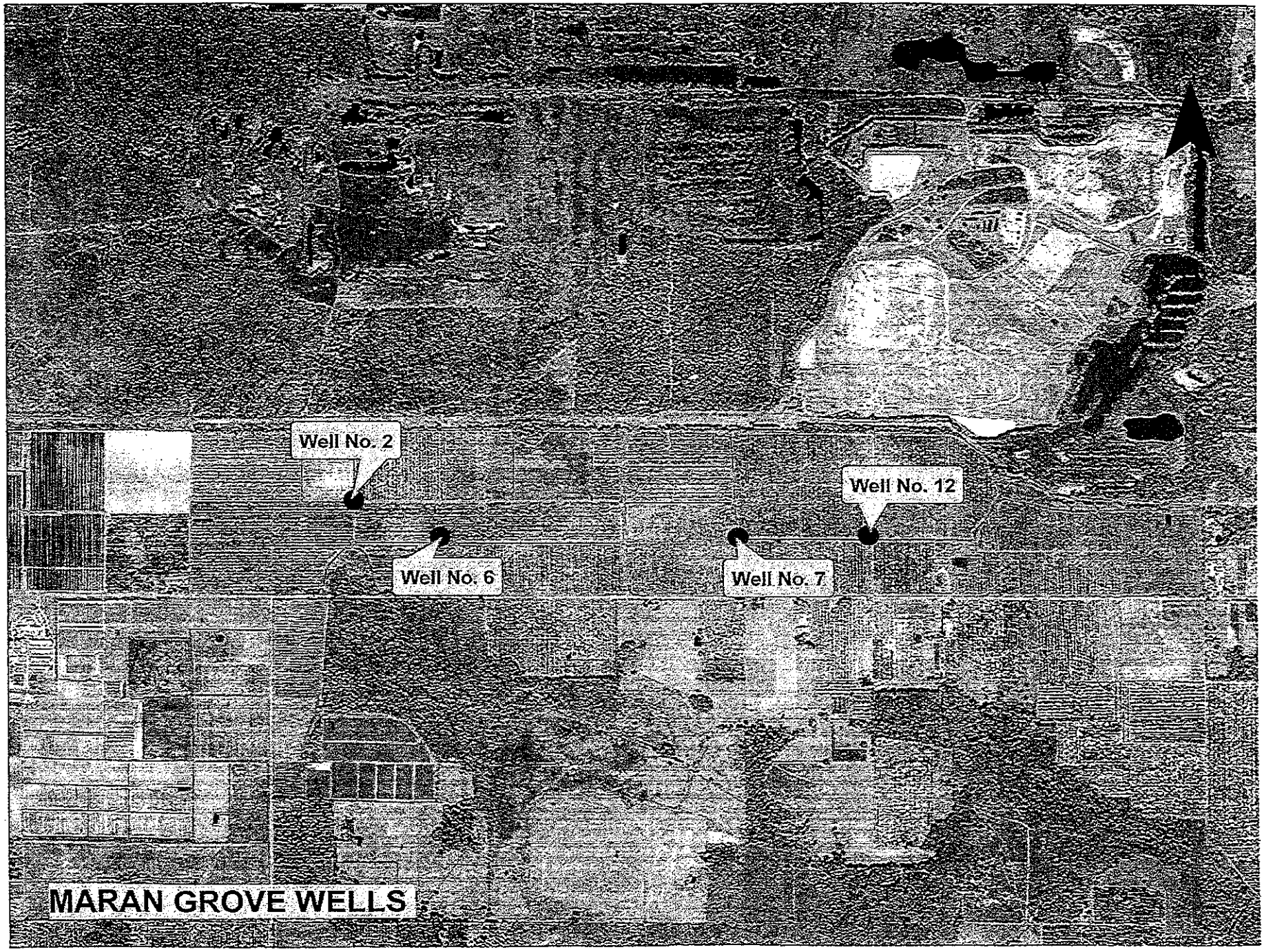


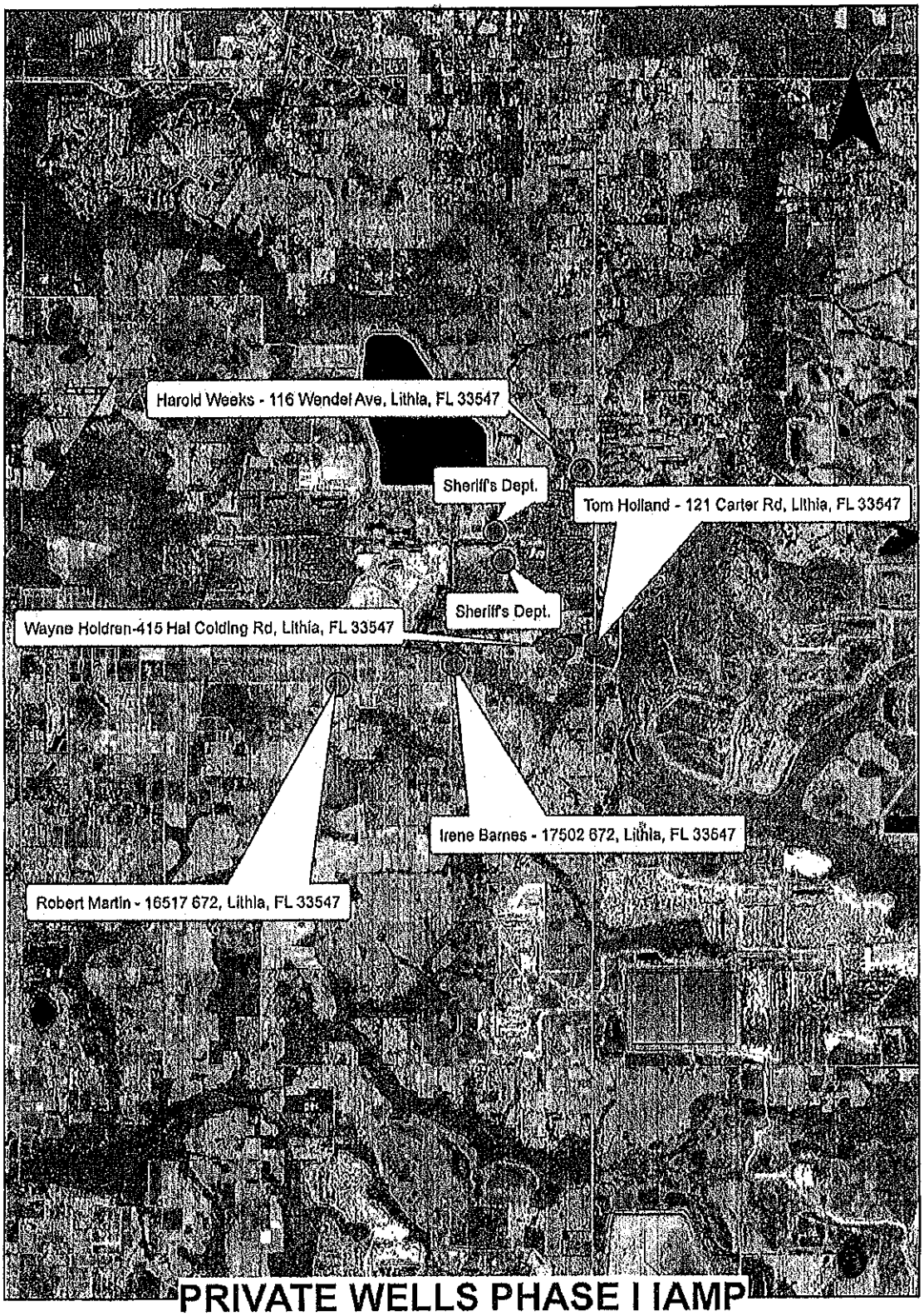
NOT TO SCALE

SOUTHEAST COUNTY LANDFILL PUBLIC UTILITIES DEPARTMENT SOLID WASTE MANAGEMENT DIVISION MANAGEMENT & ENVIRONMENTAL SERVICES SECTION	MONITOR WELL CONSTRUCTION DETAIL DIAGRAM GROUNDWATER MONITOR WELL TH-73

ATTACHMENT 4

LOCATION MAPS
MARAN GROVES SUPPLY WELLS
AND
PRIVATE SUPPLY WELLS-PHASE I IAMP


Well No. 2
Well No. 12
Well No. 6
Well No. 7
MARAN GROVE WELLS



PRIVATE WELLS PHASE I IAMP

ATTACHMENT 2

FDEP LETTER DATED DECEMBER 15, 2010

Florida Department of Environmental Protection

Southwest District
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: 813-632-7600

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Mimi Drew
Secretary

December 15, 2010

Mr. Barry M. Boldissar, Director
Hillsborough County Solid Waste Management Department
601 E. Kennedy Blvd., 24th Floor
Tampa, Florida 33602

RE: Hillsborough Southeast County Landfill, Hillsborough County
Phase VI Sinkhole Status Report
Permit #35435-016-SC/08, WACS #SWD/29/41193

Dear Mr. Boldissar:

The Department has reviewed the information provided in your December 15, 2010 status report e-mail. In order to further evaluate the potential impacts to surface water and groundwater quality as a result of the sinkhole formation in the landfill footprint, the Department requests that the County take the following immediate steps:

1. Conduct daily sampling and analysis of all monitor wells & piezometers, and inactive wells, listed in the facility's currently permitted groundwater monitoring plan, all other wells and piezometers currently located on site, and all private wells currently sampled by the permittee for the following parameters until an alternate sampling frequency and a sampling duration is agreed to:

- Water levels & depth to water in wells
- Specific Conductivity
- Total Dissolved Solids
- Chloride
- Ammonia
- Sodium

2. Prepare daily groundwater contours maps based on the daily water level data collected and submit with the next day's status report.

3. Conduct daily surface water sampling at the permitted surface water sampling points in stormwater conveyance ditch to Long Flat Creek for the parameters listed in Comment #1 above until an alternate sampling frequency and a sampling duration is agreed to and submit the result with the next day's status report.

4. Install an additional Floridan well immediately west of the sinkhole area, prepare well construction detail information in accordance with Specific Condition #E.5. of the facility permit, and conduct initial sampling and analysis of these wells in accordance with Specific Condition #E.4.b. of the facility permit. Subsequent sampling and analysis of this well shall be in accordance with Comment #1 above.

5. Conduct an updated survey of all public and private wells located within one mile of the landfill site to determine whether any additional groundwater users are in the area previously surveyed.

6. Discontinue leachate pumping from TPS-6 to Pump Station B and initiate pumping of leachate from TPS-6 directly into trucks for transport to the leachate storage tank or directly for disposal.

7. Discontinue operation of the gas collection and control system in Phase I-VI within a 200 ft radius of the sinkhole. We understand that all other gas management systems will continue to operate.

8. Continue to provide daily status reports that include the monitoring information requested above, including daily inspection of the sinkhole (size, depth, increasing, etc).

The Department appreciates the County's prompt notification and response to this incident and looks forward with meeting with the County on Friday December 17, 2010 to discuss the County's proposed initial action plan and schedule to investigate, assess, and remediate the sinkhole as well as impacts that may have occurred. Should you have any further questions or comments regarding the issues in this letter, please contact Steve Morgan in the Department's Solid Waste Section at (813) 632-7600 ext. 385.

Sincerely,

Deborah A. Getzoff
District Director
Southwest District

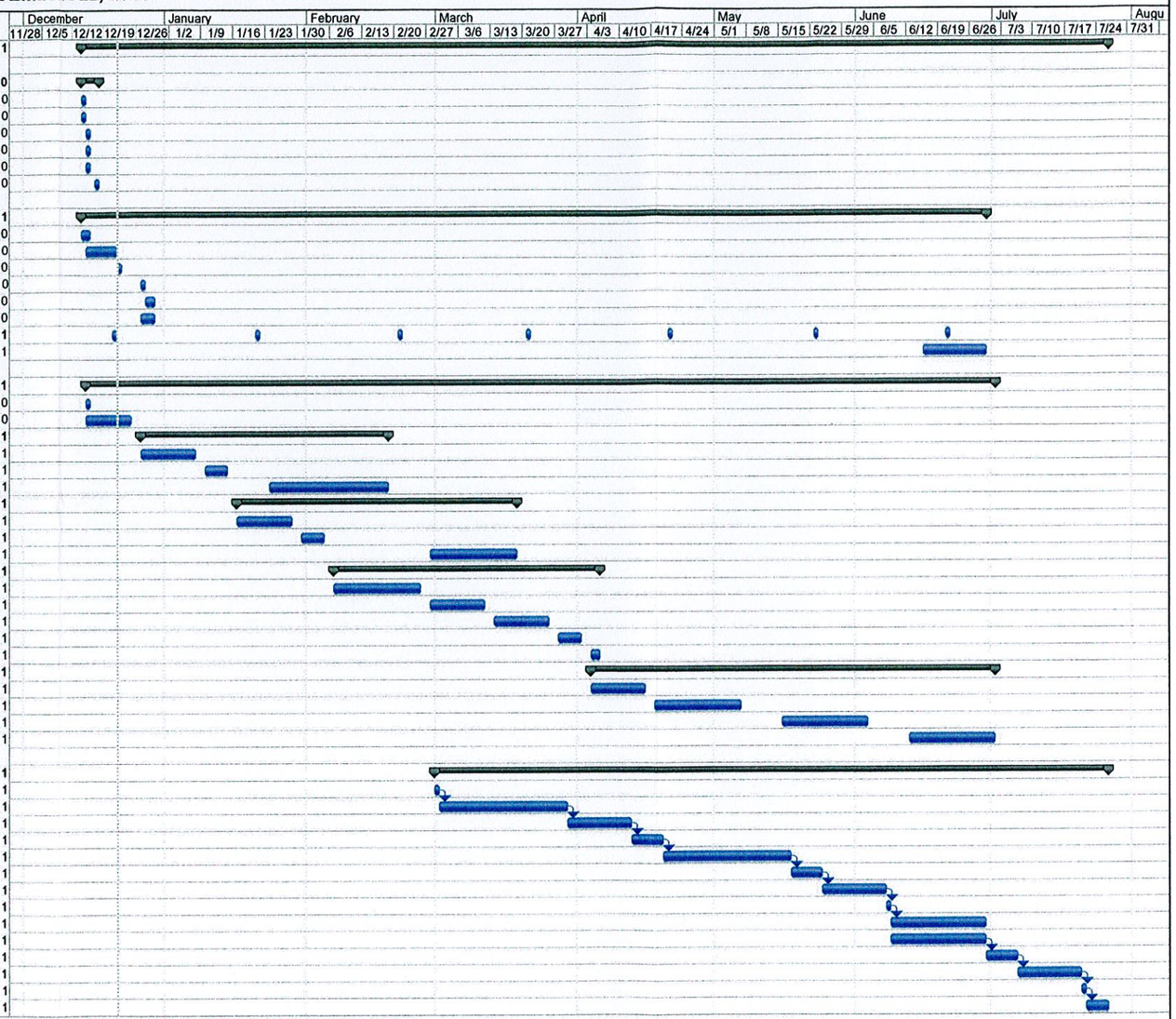
SM/sgm
cc: Larry Ruiz, Hillsborough County Solid Waste Management, RuizLE@hillsboroughcounty.org
Richard Tedder, FDEP Tallahassee (e-mail)
Jon Arthur, FGS, Tallahassee (e-mail)
Danielle Henry, FDEP Tampa Air Section (e-mail)
Stephanie Watson, FDEP Tampa (e-mail)
Susan Pelz, P.E., FDEP Tampa (e-mail)

ATTACHMENT 3

ESTIMATED SCHEDULE

SINKHOLE ISSUE - PROPOSED ACTION PLAN
HILLSBOROUGH COUNTY - SOUTHEAST COUNTY LANDFILL
DECEMBER 22, 2010

ID	Task Name	Duration	Start	Finish
1	**SCLF SINKHOLE ACTION PLAN**	**161 days**	**Tue 12/14/10**	**Tue 7/26/11**
2				
3	**NOTIFICATIONS**	**4 days**	**Tue 12/14/10**	**Fri 12/17/10**
4	Call and email FDEP describing sinkhole issue	1 day	Tue 12/14/10	Tue 12/14/10
5	Email EPC describing sinkhole issue	1 day	Tue 12/14/10	Tue 12/14/10
6	Call or email FDEP-Air Section regarding LFGCCS temporary shut-down	1 day	Wed 12/15/10	Wed 12/15/10
7	Contact County staff and develop press releases	1 day	Wed 12/15/10	Wed 12/15/10
8	Meet with press at site to describe sinkhole issues	1 day	Wed 12/15/10	Wed 12/15/10
9	Meet with FDEP to discuss draft action plan	1 day	Fri 12/17/10	Fri 12/17/10
10				
11	**GROUNDWATER MONITORING AND EVALUATION**	**142 days**	**Tue 12/14/10**	**Wed 6/29/11**
12	Review recent GW data around sinkhole area	2 days	Tue 12/14/10	Wed 12/15/10
13	Prepare additional monitoring plan for evaluation of potential impacts	5 days	Wed 12/15/10	Tue 12/21/10
14	Submit GW monitoring plan to FDEP for review and approval	1 day	Wed 12/22/10	Wed 12/22/10
15	Respond to FDEP RAI	1 day	Mon 12/27/10	Mon 12/27/10
16	Receive approval from FDEP for expanded GW monitoring within impacted area	2 days	Tue 12/28/10	Wed 12/29/10
17	Install additional GW well(s)	3 days	Mon 12/27/10	Wed 12/29/10
18	**GW Sampling and Analysis - Monthly**	**131 days**	**Tue 12/21/10**	**Tue 6/21/11**
26	Prepare GW monitoring evaluation report for submittal to FDEP	10 days	Thu 6/16/11	Wed 6/29/11
27				
28	**SINKHOLE INVESTIGATION AND REMEDIATION**	**143 days**	**Wed 12/15/10**	**Fri 7/1/11**
29	Contact sinkhole experts for initial site meeting	1 day	Wed 12/15/10	Wed 12/15/10
30	Provide requested information for site background	8 days	Wed 12/15/10	Fri 12/24/10
31	***Phase I - Initial Remediation/Stabilization Plan***	**40 days**	**Mon 12/27/10**	**Fri 2/18/11**
32	Prepare initial remediation/stabilization plan	10 days	Mon 12/27/10	Fri 1/7/11
33	Submit initial remediation/stabilization plan to FDEP for review and approval	5 days	Mon 1/10/11	Fri 1/14/11
34	Implement initial remediation/stabilization plan	20 days	Mon 1/24/11	Fri 2/18/11
35	***Phase II - Excavation Plan***	**45 days**	**Mon 1/17/11**	**Fri 3/18/11**
36	Prepare excavation plan for access to sinkhole area	10 days	Mon 1/17/11	Fri 1/28/11
37	Submit excavation plan to FDEP for review and approval	5 days	Mon 1/31/11	Fri 2/4/11
38	Implement excavation plan	15 days	Mon 2/28/11	Fri 3/18/11
39	***Phase III - Geotechnical/Geophysical Investigation***	**42 days**	**Mon 2/7/11**	**Tue 4/5/11**
40	Prepare geotechnical/geophysical investigation plan	15 days	Mon 2/7/11	Fri 2/25/11
41	Submit geotechnical/geophysical investigation plan to FDEP for review and approval	10 days	Mon 2/28/11	Fri 3/11/11
42	Implement geotechnical/geophysical investigation plan	10 days	Mon 3/14/11	Fri 3/25/11
43	Prepare summary evaluation report with recommendations for permanent remediation	5 days	Mon 3/28/11	Fri 4/1/11
44	Submit summary evaluation to FDEP	2 days	Mon 4/4/11	Tue 4/5/11
45	***Phase IV - Prepare Permanent Remediation Plan***	**65 days**	**Mon 4/4/11**	**Fri 7/1/11**
46	Prepare permanent remediation plan based on investigation	10 days	Mon 4/4/11	Fri 4/15/11
47	Submit to FDEP for review and approval	15 days	Mon 4/18/11	Fri 5/6/11
48	Implement permanent remediation plan	15 days	Mon 5/16/11	Fri 6/3/11
49	Prepare final report for sinkhole remediation	15 days	Mon 6/13/11	Fri 7/1/11
50				
51	**REPAIR CLAY LINER**	**106 days**	**Tue 3/1/11**	**Tue 7/26/11**
52	Discuss options for repairing clay liner with FDEP	1 day	Tue 3/1/11	Tue 3/1/11
53	Review sinkhole evaluation, assessment, and remediation reports	20 days	Wed 3/2/11	Tue 3/29/11
54	Prepare design and methodology for repairing clay liner	10 days	Wed 3/30/11	Tue 4/12/11
55	County review and approval of clay liner repair plan	5 days	Wed 4/13/11	Tue 4/19/11
56	Submit clay liner repair plan to FDEP for review and approval	20 days	Wed 4/20/11	Tue 5/17/11
57	Respond to FDEP RAI	5 days	Wed 5/18/11	Tue 5/24/11
58	Receive approval of clay liner repair plan	10 days	Wed 5/25/11	Tue 6/7/11
59	Contract with contractor for clay liner repair	1 day	Wed 6/8/11	Wed 6/8/11
60	Perform clay liner repair	15 days	Thu 6/9/11	Wed 6/29/11
61	Testing to confirm clay liner repair (CQA Report)	15 days	Thu 6/9/11	Wed 6/29/11
62	Submit CQA/Certification to FDEP	5 days	Thu 6/30/11	Wed 7/6/11
63	Respond to FDEP RAI for CQA/Certification	10 days	Thu 7/7/11	Wed 7/20/11
64	Receive FDEP approval of clay liner repair	1 day	Thu 7/21/11	Thu 7/21/11
65	Backfill sinkhole area	3 days	Fri 7/22/11	Tue 7/26/11



Project: Sinkhole Action Plan 21 DEC
Date: Wed 12/22/10

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone