

# Florida Department of Environmental Protection

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

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard, Jr.  
Secretary

CERTIFIED MAIL 7009 1410 0001 0092 0932  
RETURN RECEIPT REQUESTED

June 2, 2011

In the matter of an  
Application for Permit by:

DEP File No. 26254-002-SO/IM  
Pasco County

Mr. Bruce Kennedy, P.E.  
Assistant County Administrator  
Pasco County Public Works/Utilities  
7530 Little Road,  
New Port Richey, Fl, 34654

## NOTICE OF PERMIT

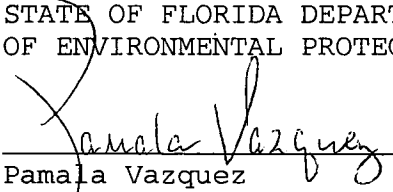
Dear Mr. Kennedy:

Enclosed is **Permit No.: 26254-002-SO/IM**, issued pursuant to Section(s) 403.087(1), Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Blvd., Mail Station 35, Tallahassee, 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
\_\_\_\_\_  
Pamala Vazquez  
District Director  
Southwest District

PV/ndg

Attachment

Pasco County Elected Officials Notification  
Pasco County Notification List  
R.J. Bruner, P.E., [Bo.Bruner@C2HMHill.com](mailto:Bo.Bruner@C2HMHill.com)  
Fred Wick/Frank Hornbrook, FDEP Tallahassee, email  
Richard Tedder, FDEP Tallahassee, email  
Susan Pelz, P.E., FDEP SWD, email  
Permit Notebook

**CERTIFICATE OF SERVICE**

This undersigned duly designated deputy clerk hereby certifies that this **Notice of Permit** was mailed to the addressee, and either mailed or transmitted electronically to the listed persons before the close of business on **June 2, 2011.**

(date)

**FILING AND ACKNOWLEDGMENT FILED,**

on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Anna Brantly  
(Clerk)

6/2/2011  
(Date)



# Florida Department of Environmental Protection

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

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

Herschel T. Vinyard Jr.  
Secretary

**PERMITTEE**

Pasco County Board of  
County Commissioners  
7530 Little Road  
New Port Richey, Florida 34654  
c/o Mr. John Power, SW Manager

**PERMIT/CERTIFICATION**

WACS Facility ID No: SWD/51/45799  
Permit No: **26254-001-SO/T3**  
Date of Issue: **11/7/2008**  
Expiration Date: **11/7/2013**  
County: Pasco  
Lat/Long: 28°22'22"N  
82°34'06"W  
Sec/Town/Rge: 25&26/24S/17E  
Project: West Pasco Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522 and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or referenced in Specific Condition #A.2. and made a part hereof and specifically described as follows:

To operate, monitor, and maintain a Class III landfill (approximately 14.0 acres), referred to as the West Pasco Class III Landfill, and related ancillary facilities, subject to the specific and general conditions attached, located at 14230 Hays Road, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of a:

1. Class III Landfill
2. Leachate holding tanks system
3. Household Hazardous Waste Collection and Recycling Center (HHWCC)

**Replaces Permit No.: 26255-001-SO**

**Includes Modification #. 26254-002-SO/IM, issued 06/02/2011**

**General Information**

Disposal acres	Approx. 14 acres (Cells 1-4 - 3.5 acres each)
Lowest bottom elevation of Cells 1-4 (south end of Cell 1)	+45.0 ft. NGVD [ref. SC#A.2.b., Sheet C-6]
Top elevation at final buildout	Max. +79.26 ft NGVD [ref. SC#A.2.a.(3), Sheet I2]
Side slopes max.	4H:1V [ref. SC#A.2.a.(3), Sheet I2]
Liner system (bottom to top)	In-situ subgrade, 60 mil HDPE geomembrane, 2-foot drainage sand [ref. SC#A.2.b., Sheet C-10, Detail D]
LCS drainage system	Two 8-inch PE perforated LCS piping per cell, draining north to south within 2-foot drainage/protective sand layer [ref. SC#A.2.b., Sheet C-10, Detail D]  Cell 1 & 2 perforated LCS pipes drain to non-perforated 10-inch header pipe and leachate manhole for each cell. Cell 1 & 2 manholes drain to Leachate Tank No. 1. Cells 3 & 4 drain similarly to Leachate No. 2. Leachate from Tanks 1 & 2 drains to Shady Hills WWTP [ref. SC#A.2.b., Sheet C-6 and SC#A.2.a.(1), Figure No. 4]
Design life	45-55 years
Leachate storage tanks	Two below ground concrete leachate holding tanks, no secondary containment: nominal diameter = 10 ft diameter, approx. 11-12 ft deep. [ref. SC#A.2.b., Sheet C-8, Detail A]

This permit contains compliance items summarized in **Attachment 1** that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;

(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

GENERAL CONDITIONS:

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (a) Determination of Best Available Control Technology (BACT)
- (b) Determination of Prevention of Significant Deterioration (PSD)
- (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
- (d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

GENERAL CONDITIONS:

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware, the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

1. **Facility Designation.** This landfill shall be classified as a **Class III landfill and related facilities**, and shall be operated, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 62-330, 62-520, 62-522, 62-550, and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of Cells 1-4 of the Class III landfill, the leachate holding tank system, and related ancillary facilities, in accordance with all applicable requirements of Department rules, the conditions of this permit, and in accordance with the reports, plans and information submitted by CDM, unless otherwise noted, as follows:

a. Operation Permit Renewal Application for West Pasco Class III Landfill, (one 3-ring binder & one spiral bound document) dated and received February 2, 2007, prepared by CDM, as revised, replaced or amended (information inserted into originals), dated and received April 19, 2007, dated October 5, 2007 (received October 8, 2007), dated and received December 28, 2007, dated March 20, 2008 (received March 21, 2008), dated and received June 25, 2008, and dated and received August 11, 2008. This information includes, but is not limited to:

- 1) Operations Plan, dated June 2008 [Section 3, Attachment 1] revised as listed in SC#A.2.c(1) below.
- 2) Groundwater Monitoring Plan, March 20, 2008 (revised August 11, 2008) [spiral bound document]; and
- 3) Plan Sheet titled, Sheet #12 "Final Closeout Cross Sections" signed and sealed January 21, 1988, revised and received June 25, 2008.

b. Plan Set titled, West Pasco County Class III Landfill Construction Drawings (Record Drawings May 10, 1991) (14 sheets), received July 7, 1995.

c. Solid Waste System Upgrade at West Pasco Solid Waste Management Facility, (one 3-ring binder)\* dated May 2010 (rcv'd June 16, 2010), prepared by CH2M Hill, as revised, replaced or amended (information inserted into originals), dated October 8, 2010 (rcv'd October 12, 2010), dated December 20, 2010 (rcv'd December 21, 2010), dated January 31, 2010 (rcv'd February 7, 2011). This information includes, but is not limited to:

- 1) Operations Plan, rcv'd December 21, 2010 inserted into original listed in SC#A.2.a(1) above. (Op. Plan)
- 2) Citizen Drop Off Operations Plan, rcv'd February 7, 2011, attached to Operations Plan and inserted into original listed in SC#A.2.a(1) above.
- 3) Plan Set titled, Contract Documents for the Construction of Pasco County Solid Waste Upgrade... ., (33 Sheets), rcv'd February 7, 2011.

\*See Oculus for uncollated submittals.

New 06/02/2011

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

**3. Permit Modifications.**

a. Any construction or operation not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Any significant changes to the operations at the facility shall require a permit modification. Permits shall be modified in accordance with the requirements of Rule 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

**4. Permit Renewal.** No later than May 1, 2013, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by Rule 62-701.320(10), F.A.C. Operation permit renewal shall include, but not be limited to, an updated operations plan, water quality monitoring plan, site plans for sequence of filling with cross-sections of lifts, and revised (not inflation-adjusted) financial assurance cost estimates.

**5. Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

**6. General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

**7. Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

**8. Regulations.** Chapter 62-701, F.A.C., effective January 6, 2010, is incorporated into this permit by reference. In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions

**Amended 06/02/2011**

**9. Prohibitions.**

a. The prohibitions of Rule 62-701.300, F.A.C., shall not be violated by the activities at this facility.

b. In the event that surface depressions which may be indicative of sinkhole activity, or subsurface instability, are discovered onsite, or within 500 feet of the site, the Department shall be notified in accordance with Specific Condition #C.6.b, below. Written notification shall be submitted **within 7 days of discovery**. The written notification shall include a description of the depression, the location and size of the depression shown on an appropriate plan sheet, and a corrective action plan which describes the actions necessary to prevent the unimpeded discharge of waste or leachate into ground or surface water.

c. Waste Burning. Open burning of solid waste is prohibited except in accordance with Rule 62-701.300(3) and Chapter 62-256, F.A.C. All fires which require longer than one (1) hour to extinguish must be promptly reported to the Department in accordance with Specific Condition #C.6.b., below.



**SPECIFIC CONDITIONS: PART B - Construction Requirements**

1. **Construction.** All significant construction activities shall be approved by the Department prior to initiating work, unless specifically authorized otherwise.

a. This permit authorizes the construction of a scale house and citizen drop off area and related appurtenances at the West Pasco Class III landfill only. [ref. SC#A.2.c.]  
New 06/02/2011

2. **Certification of Construction Completion.** All information required by this Specific Condition shall be signed and sealed by a registered professional engineer or land surveyor as appropriate.

a. **Within sixty (60) days** after any specified construction has been completed or as otherwise specified in this permit, the following activities shall be completed and submitted by the permittee to the Department. Operation of the constructed systems, structures, equipment, etc., shall not be initiated prior to Department approval of the information required by this Specific Condition.

1) The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer responsible for the construction to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.

2) The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include as-built plans details and elevations (survey) as appropriate.

3) The owner or operator shall submit a narrative indicating all changes in plans and the cause of the deviations, and certification by the design engineer to the Department.

4) The engineer of record shall provide a report to verify conformance with the project specifications. The report including all related testing results shall be submitted to the Department along with the completion of construction documents.

SPECIFIC CONDITIONS: PART C - Operation Requirements

1. **Facility Operation Requirements.**

a. The permittee shall operate this facility in accordance with Rule 62-701.500, F.A.C., the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], Operations Plan [ref. SC#A.2.a(1)], and any other applicable requirements.

1) Operation of the Waste Tire Facility shall be in accordance with Chapters 62-701 and 62-711, F.A.C., and Operation Permit 126935-002-WT/02 (including modifications, if any), or its successors.

2) Operation of the Yard Trash Processing Facility shall be in accordance with Chapter 62-709.320, F.A.C., and Yard Trash Processing Facility Registration No. 051-01-YT, or its successors.

3) The Household Hazardous Waste Collection/Storage Facility (HHWCC) shall be operated in accordance with the HHWCC Operating Plan and Contingency Plan, submitted by Pasco County on May 22, 1995.

b. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner and leachate management systems at any time during the construction or operation of this facility.

c. Waste shall not be disposed (unloaded, spread, or compacted) during non-daylight hours, unless sufficient lighting is provided to adequately observe the materials and remove unacceptable wastes.

d. Site Inspections.

1) The owner or operator shall inspect the site for erosion and settlement (low spots and improperly graded areas) **weekly** (twice per week during the wet seasons). Erosion and settlement shall be repaired in accordance with Specific Condition #C.6.

2) The owner or operator shall inspect the landfill facility for the presence of objectionable odors at the property boundary **daily on operating days**. In the event that objectionable odors are detected at the property boundary, the owner or operator shall abate the odors in accordance with the procedures in Section 9.B. of the Operations Plan.

3) The owner or operator shall inspect the area of the facility outside the working face area of the facility for litter **daily**. [ref. Op. Plan, Sec. 7]. In the event that the litter control program is ineffective, the operator shall notify the Department, and implement additional litter control measures **within 30 days**.

e. In the event of fire, hurricane or other severe natural event, inoperable equipment, lack of qualified personnel, or stormwater control problems which allow prolonged (**greater than 72 hours**) contact of ponded water with waste, the facility shall cease disposing waste in the affected area until appropriate drainage has been restored.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.1., cont'd)

f. Equipment. In the event of equipment breakdown or scheduled maintenance, the owner or operator shall ensure that sufficient reserve equipment is operating at the site within 24 hours of the occurrence. In the event that sufficient reserve equipment is not obtained within 24 hours, the permittee shall notify the Department in accordance with Specific Condition #C.6.b., below and provide a schedule for corrective actions.

g. Fires. In the event of a fire which requires offsite assistance from the local fire protection authorities, the Department shall be notified pursuant to Specific Condition C.6.b. below, and the owner or operator shall cease disposal of waste in the affected area until the fire has been completely extinguished, or as otherwise specified by the Department [ref. Op. Plan, Sec. 11.e.]. Trenches cut into the waste shall not be used to extinguish fires without prior Department approval.

h. Waste streams generated by the operation or maintenance of the facility and equipment shall be managed such that any residual contaminants (such as gasoline, oil, paint, antifreeze, PCBs, etc.) shall be stored such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the ground or into surface or groundwaters.

**2. Operating Personnel.**

a. A trained operator (trained in accordance with the Section 1 of the Operations Plan) shall be on duty at the facility whenever the facility is operating and shall be responsible for operating and maintaining the facility in an orderly, safe, and sanitary manner.

b. A sufficient number of trained spotters (at least one trained spotter) shall be at the tipping areas at all times that waste is being accepted at the facility to inspect each load of waste as it is unloaded and spread, and shall remove prohibited materials prior to processing [ref. Op. Plan, Sec. 2.c.]. Training of spotters shall be in accordance with the Section 1 of the Operations Plan.

c. A sufficient number of trained personnel shall be available to adequately operate the facility. In the event that a trained operator or spotter is not available at the site, the facility shall be closed and shall not accept debris. In the event that unacceptable wastes are not adequately removed from the waste prior to disposal, additional trained spotters shall be required.

d. The permittee shall notify the Department in writing of a change of the County's primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

3. **Control of Access.** Access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C. [ref. Op. Plan, Sec. 5]. Adequate access to the working face shall be provided for all weather conditions while the facility is receiving waste for disposal.
  
4. **Monitoring of Waste.**
  - a. Wastes shall be monitored as required by Rule 62-701.500(6), F.A.C., including a load checking program and associated activities. The owner or operator shall conduct three random load checks per week at the active working face [ref. Op. Plan, Sec. 6]. Documentation of the three random load checks, including descriptions (type and quantity) of unacceptable wastes discovered, shall be maintained on-site, and copies provided to the Department upon request [ref. SC#D.3.b(3)].
  
  - b. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous wastes are wastes listed in 40 CFR 261 Subpart D as hazardous or are wastes characterized in 40 CFR 261 Subpart C as hazardous. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with Rules 62-701.300(4) and 62-701.500(6)(b), F.A.C. In the event that hazardous wastes are discovered, the Department shall be notified in accordance with Specific Condition #C.6.b. and the waste shall be managed in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan.
  
5. **Control of Nuisance Conditions.**
  - a. The owner or operator shall control odors, vectors (mosquitoes, other insects, rodents), and fugitive particulates (dust, smoke) arising from the operation to protect the public health and welfare. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance.
  
  - b. In the event that the odor control measures performed at the facility, do not sufficiently abate objectionable odors offsite, **within sixty (60) days** of initial detection, the owner or operator shall submit an odor abatement plan to the Department for approval. The odor abatement plan shall include at a minimum, a description of the proposed corrective actions and a schedule for implementation.
  
6. **Facility Maintenance and Repair.**
  - a. The site shall be properly maintained including maintenance of access roads to disposal areas, equipment, stormwater and leachate management systems, leachate holding tanks, cover systems and berms, gas monitoring system, and groundwater monitoring system. Erosion and ponded water in disposal areas shall be prevented. Erosion in the stormwater management system shall be minimized.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.6., cont'd)

b. In the event of damage to any portion of the landfill site facilities, unauthorized leachate discharge, failure of any portion of the landfill systems, damaged or dry groundwater monitoring wells, damage to the liner or leachate collection, removal or treatment systems, fire, explosion, the development of sinkhole(s) or other subsurface instability at the site, landfill gas exceedances in onsite structures, etc., the permittee shall **immediately (within 24 hours)** notify the Department explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written, detailed notification shall be submitted to the Department within seven (7) days following the occurrence.

c. In the event that any portion of the groundwater monitoring system is damaged or unable to be sampled, corrective actions shall be completed **within sixty (60) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department. Corrective actions which include relocation or installation of new groundwater monitoring wells shall be in accordance with Specific Condition #E.5., or as otherwise approved by the Department.

d. In the event that the stormwater or leachate management systems or liner system is damaged or is not operating effectively, corrective actions shall be implemented **within thirty (30) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department.

e. Intermediately covered areas, or areas which discharge to the stormwater management system, which exhibit significant erosion shall be repaired as specified below:

- 1) **Within 7 days** if the soil cover materials have eroded such that greater than 50% of the soil in that location has been eroded, or
- 2) **By the end of the next working day** if waste or liner is exposed.

f. In the event that the intermediately covered side slopes exhibit chronic, "significant" erosion as defined above, a corrective action plan shall be submitted to the Department **within thirty (30) days** of written notification and request from the Department and corrective actions shall be implemented in accordance with the Department approved corrective action plan.

g. Areas which have received final cover, and which exhibit significant erosion as defined above, shall be repaired as specified in Specific Condition #C.6.e., above.

h. Settlement. Areas which exhibit settlement (low spots and improperly graded areas) that may cause ponding of water shall be repaired (additional soil placed, regraded, seeded and/or sodded) **within seven (7) days.**

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

7. **Stormwater System Management.**

a. The site shall have a surface water management system designed, constructed, operated, and maintained to prevent surface water from running on to waste filled areas and the mixing of stormwater with leachate, and a stormwater runoff control system designed, constructed, operated, and maintained to collect and control stormwater to meet the requirements of Chapter 62-330, F.A.C., and the requirements for management and storage of surface water in accordance with Rule 62-701.500(10), F.A.C., to meet applicable standards of Chapters 62-3, 62-302, and 62-330, F.A.C. All stormwater conveyances shall be inspected monthly and after significant (greater than 2") rainfall events to verify adequate performance. Conveyances not performing adequately shall be repaired in accordance with the procedures specified in the Operations Plan. Documentation of all inspections and repairs shall be kept on file at the facility.

8. **Leachate Management.**

a. Leachate shall be managed in accordance with the requirements of Rule 62-701.500(8), F.A.C., the information in Section 2.j and Section 8 of the Operations Plan, and other applicable Department rules.

b. Leachate, which has accumulated in low areas within the disposal area shall be removed from the disposal area at least **daily**.

c. Leachate Disposal.

1) Leachate shall be pumped offsite for disposal at an appropriately permitted wastewater treatment facility (WWTP). No later than **thirty (30) days** prior to the expiration of any contracts or agreements for the disposal of leachate at wastewater treatment facilities, the permittee shall provide a copy of the contract renewal or the issuance of a new contract for leachate disposal.

2) In the event that the primary leachate disposal facility becomes unable or unwilling to accept leachate for disposal, **within three (3) days** of the cessation of leachate acceptance by the WWTP, the landfill owner or operator shall notify the Department and shall explain the contingency measures which will be implemented. The contingency measures shall be implemented **within seven (7) days** of the cessation of leachate acceptance at the WWTP, or in accordance with an alternate schedule approved by the Department.

d. Leachate Quantities.

1) Leachate quantities shall be measured and recorded in accordance with the procedures specified in Section 8 of the Operations Plan.

2) A rain gauge located on-site shall be used to compare precipitation with leachate generation. Rainfall data, in excess of one-tenth of an inch, shall be recorded by landfill personnel on a daily basis [ref. Op. Plan, Sec. 8].

3) Leachate generation reports shall be compiled monthly and submitted to the Department quarterly or more frequently if requested, by **January 15th, April 15th, July 15th and October 15th** each year. Leachate generation reports shall include precipitation amounts greater than one tenth of an inch, the number of open, intermediate and closed acres, and the quantities of leachate collected, stored, and hauled off-site to a wastewater treatment facility.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.8., cont'd)

e. Leachate Collection System Inspections/Maintenance.

1) Each manhole and leachate holding tank and related sensors and controller mechanisms shall be inspected on a monthly basis [ref. Op. Plan, Sec. 8]. Pumps showing reduced performance shall be removed for maintenance and repair, and a replacement pump installed if required for continued compliance.

2) **No later than February 1, 2013**, the entire leachate collection and removal system shall be water pressure cleaned and/or video inspected to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office **no later than May 1, 2013** to demonstrate adequate performance.

f. Leachate Storage Tanks.

1) In the event of failure of the tank overflow protection system (i.e. signal alarms and pump shut-off failure), the back-up contingency plan procedures specified in Section 8 of the Operations Plan shall be implemented.

9. **Special Wastes Handling Requirements.**

a. The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan; Rules 62-701.300(8) and 62-701.520, F.A.C.; and any other applicable Department rules, to protect the public safety, health and welfare. The special wastes shall be stored and managed such that discharge of contaminants to the environment is prevented. The special wastes shall be handled on a first-in, first-out basis. The special wastes shall be stored in a location which does not interfere with the sequence of filling.

b. Scrap metal. Scrap metal separated from the waste stream for recycling shall be stored within the designated metals storage area shown on Figure 1 of the Operations Plan and managed as described in the Operations Plan [ref. Op. Plan, Sec. 2.c.]. Scrap metals which may include residual contaminants such as gasoline, oil, paint, antifreeze, PCBs, etc., shall be stored and managed such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the soil or into surface or groundwaters.

c. White Goods. White goods shall be rejected and reloaded or kept undamaged and placed upright adjacent to the designated metals storage area shown on Figure 1 of the Operations Plan. White goods, which may contain chlorofluorocarbons (CFCs, such as Freon), shall be stored and managed in a manner such that the CFCs are not discharged to the atmosphere. White goods which have had the refrigerant appropriately removed shall be clearly marked and may be stored in the scrap metal storage area.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.9., cont'd)

d. Waste Tires. Tires inadvertently accepted at the facility and subsequently removed from waste stream shall be managed at the on-site waste tire processing facility in accordance with Chapters 62-701 and 62-711, F.A.C., and Waste Tire Collection Center Permit No. 126935-002-WT/02 (including modifications, if any), or its successors.

e. Other Special Wastes. Small items of special wastes (e.g. used oil, lead acid batteries, mercury-containing devices, etc) removed from the waste stream shall be sent to the HHWCC and managed in the designated areas for these wastes in accordance with the HHWCC Operating Plan and Contingency Plan [ref. SC #C.1.a.(3)].

f. Contaminated soil, excavated waste. Neither soils that are reasonably believed to be contaminated nor wastes excavated from the redevelopment of former disposal sites/areas, shall be disposed at this site. In order to ensure that these materials are not inadvertently received at the site, for all loads with large quantities of soil, **prior to the acceptance of the load**, the permittee shall request the following information for each load: name, address and phone number of generator (i.e., jobsite where material is generated), a certification from the generator that the material is not known to be contaminated and/or did not originate from a former waste disposal area.

g. Shredded/Processed Waste. Wastes that are not clearly identifiable by visual observation as Class III waste are prohibited from being accepted at this facility. Waste that has originated from excavation or redevelopment of old landfills or unpermitted dumps is considered Class I waste and is not authorized to be managed at this facility.

10. **Waste Handling Requirements.**

a. A sufficient number of spotters shall be utilized at the facility for removing unacceptable wastes. In the event that unacceptable wastes are not adequately removed due to inadequate personnel, additional trained spotters shall be required.

b. A trained spotter shall be positioned at the working face to inspect each load as it is being received, unloaded and as it is spread and compacted [ref. Op. Plan, Sec. 2.c.].

c. Unauthorized wastes shall be removed from the waste and stored in a 40 CY roll-off containers located immediately adjacent to (within 200 feet) the active face. The unacceptable waste container shall be removed for disposal within at the end of each working day or when full, whichever occurs first. [ref. Op. Plan, Secs. 2.c.].

d. Containers which store unauthorized wastes shall be covered/tarped at the end of each business day, when full, and in the event of inclement weather.

e. Unauthorized wastes shall be removed from the incoming loads immediately, and no other loads shall be dumped in the immediate vicinity until unauthorized materials have been removed and stored in the container provided for unacceptable wastes.



**SPECIFIC CONDITIONS: PART C - Operation Requirements**

11. **Waste Covering Requirements.** All solid waste disposed of in the Class III landfill shall be covered as required by Rule 62-701.500(7), F.A.C.

a. Initial Cover. Initial cover shall be applied and maintained at the Class III landfill in accordance with Rule 62-701.500(7)(e), F.A.C., so as to protect the public health and welfare.

1) All solid waste disposed of in the Class III disposal area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department (in writing), at the end of each working week [ref. Op. Plan, Sec. 7.].

b. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion [ref. Op. Plan, Sec. 7.].

c. Top gradients of intermediate cover shall be designed to prevent ponding or low spots and minimize erosion. **Daily**, the owner or operator shall operate the facility, maintain grades, or utilize berms and swales, to prevent ponded water within the disposal areas.

12. **Working Face.**

a. The permittee shall maintain a working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously that can be adequately spotted by the number of trained spotters at the facility. [ref. Op. Plan, Sec. 7.].

b. Interceptor berms shall be maintained around the working area to prevent leachate runoff from the working face from entering the stormwater management system and to minimize the formation of leachate [ref. Op. Plan, Sec. 7.].

13. **Method and Sequence of Filling.**

a. The method and sequence of filling shall be in accordance with the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], and as described in the Operations Plan [ref. Op. Plan, Secs. 2.f, 2.g. & 7.], or as otherwise approved in writing by the Department.

b. Waste shall be spread in 2 feet thick layers and compacted before applying the next layer of waste and in accordance with the method, procedures, and sequence described in the facility Operations Plan [ref. Op. Plan, Sec. 2.g.]. Cells shall be filled in approximate 10 foot lifts. Slopes shall be maintained in accordance with the Permit Drawings. The working face shall be no greater (steeper) than 3H:1V [ref. Op. Plan, Secs. 2.g. & 7.].

c. The permittee shall maintain and clearly stake/mark the location of the edge of the liner and maintain the locations as the landfill increases in elevation to prevent waste disposal and leachate runoff outside the geomembrane liner. The permittee shall maintain a minimum disposal setback of 5 feet from the inside top edge of the bottom liner system.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.13., cont'd)

d. Initial Waste Placement.

1) The first lift of waste shall be a minimum of four(4) feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system and shall be conducted in accordance with the procedures in Section 7 of the Operations Plan. At least 7 days prior to the initiation of waste placement in each cell, the Department shall be notified in order to allow Department observation of the select waste type and placement.

e. The owner or operator shall conduct a topographic survey of, and shall estimate the remaining disposal capacity and site life of each disposal area as required by Rule 62-701.500(13)(c), F.A.C. **Annually, no later than April 15<sup>th</sup> each year**, a copy of this survey, supporting capacity calculations, signed and sealed by a registered professional engineer and/or licensed professional land surveyor as appropriate shall be submitted to the Department. The survey shall demonstrate that the above-grade sideslopes are no greater than the design slopes, that the top elevation does not exceed design elevation, and that all other design features and related improvements conform to the Department-approved permit drawings. The capacity estimate shall include updated design lifetime calculations.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

1. **Report Submittals.**
  - a. Unless specified otherwise in this permit, all submittals, notifications, or requests for permit modification shall be provided to the Southwest District Solid Waste Section, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.
  
2. **Operation Plan and Operating Record.**
  - a. Each landfill owner or operator shall have an operational plan which meets the requirements of Rule 62-701.500(2), F.A.C. A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections [ref. Op.Plan, Sec. L.3]. Operating records as required by Rule 62-701.500(3), F.A.C., are part of the operations plan, and shall also be maintained at the site.
  
  - b. Proposed changes to the current Department-approved **Operations Plan** shall be submitted in writing to the Department for review and may require a permit modification in accordance with Specific Condition #A.3. The **Operations Plan** shall be updated as operations change and for renewal of the permit. Revised pages shall be provided as replacement pages with revisions noted (deletions may be struckthrough (~~struckthrough~~) and additions may be underlined (underlined) or a similar method may be used) and each page numbered with the document title and date of revision.
  
3. **Waste Records.**
  - a. Waste records shall be maintained as required by Rule 62-701.500(4), F.A.C. The owner or operator of the facility shall weigh each load of waste as it is received (with scales at the facility) and record, in tons per day, the amount of waste debris and material received. This information shall be compiled **monthly** and submitted to the Department (Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, M.S. 4565, Tallahassee, Florida 32399-2400) **quarterly, by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup> of each year** [ref. Op.Plan, Sec. L.4]. Waste shall not be accepted for disposal at the landfill unless weight scales are available at the facility and are in proper working condition.
  
  - b. The following reports, documents and other information shall be kept at the facility for reference, and copies shall be provided to the Department upon request:
    - 1) Waste quantity reports [ref. SC #D.3.a].
    - 2) A log of the facility operator's inspections, and any subsequent corrective actions;
    - 3) Load checking records;
    - 4) Operator and spotter training certificates and other documentation; and
    - 5) Log of odor complaints and corrective action.
    - 6) Records as described in Rule 62-701.500(13). These records shall include all certifications for construction completion;
    - 7) Documentation of incidents reported pursuant to Specific Condition C.6.;
    - 8) Water quality and gas monitoring reports.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

4. **Financial Assurance.** The permittee shall provide adequate financial assurance for this facility and related appurtenances in accordance with Rule 62-701.630, F.A.C.

a. All costs for closure shall be adjusted and submitted for approval **annually, by September 1st each year** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

b. Proof that the financial mechanism has been adequately funded shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

**1. Water Quality Monitoring Quality Assurance.**

a. All field work done in connection with the facility's Water Quality Monitoring Plan regarding the collection of ground water, surface water and leachate samples shall be conducted in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001/01 dated February 1, 2004 [or as replaced by successor SOPs], as referenced in Rule 62-160.210(1), F.A.C. All laboratory analyses done in connection with the facility's Water Quality Monitoring Plan shall be conducted by firms that hold certificates from the Department of Health Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C., as referenced in Rule 62-160.300(1), 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 the permit and shall be implemented by all persons performing sample collection or analysis related to this permit. 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.

b. The field testing, sample collection and preservation and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

**2. Zone of Discharge.**

a. The zone of discharge for the West Pasco Class III landfill shall extend horizontally 100 feet from the limits of the landfill liner (all active, inactive and closed Class III waste disposal areas), or to the property boundary, whichever is less, and shall extend vertically to the first semi-confining unit within the upper Floridan aquifer.

b. The permittee shall ensure that the water quality standards for Class G-II ground water will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the ground water minimum criteria referenced in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the disposal areas.

**3. Ground Water Monitor Well Locations.** The ground water monitoring system locations for the West Pasco Class III landfill footprint (Cells 1 through 4) are designed and shall be constructed in accordance with the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM, dated March 2008, revised August 2008 [ref. SC#A.2.a.(2)]. The ground water monitor wells and piezometers are located on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (**attached**), as follow:

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

(Specific Condition #E.3., continued)

WACS

Testsite	Scheduling	Notes	Aquifer	Designation	Location
Well #	ID #				
2MW-7	2343	A, X	Surficial	Background	See Figure 3-1
4MW-7	2340	A, X	Floridan	Background	↓
4MW-21	23065	B, Y	Floridan	Detection	↓
4MW-22	23066	B, Y	Floridan	Detection	↓
4MW-23	23067	C, Y	Floridan	Detection	↓
2MW-3A	19671	A, X	Surficial	Piezometer	See Figure 3-1
4MW-3A	19670	A, X	Floridan	Piezometer	↓
2MW-8	2344	A, X	Surficial	Piezometer	↓
4MW-8	2341	A, X	Floridan	Piezometer	↓
2MW-9	2345	A, X	Surficial	Piezometer	↓
4MW-9	2342	A, X	Floridan	Piezometer	↓
2MW-10	2346	A, X	Surficial	Piezometer	↓

Proposed monitor well 4MW-21 shall be constructed in accordance with the details provided in Figure 3-6 ("Proposed Well Construction at Floridan Well 4MW-21"), received March 21, 2008, and proposed monitor wells 4MW-22 and 4MW-23 shall be constructed in accordance with the details provided in Figure 3-7 ("Proposed Well Construction at Floridan Wells 4MW-22 and 4MW-23"), received March 21, 2008, as referenced in Section 3.1.3 of the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM [ref. SC#A.2.a.(2)].

A = existing monitor well/piezometer

B = proposed monitor wells to be installed **within 30 days of issuance of permit #26254-001-SO**

C = proposed monitor well to be installed **at least 30 days prior to initiation of debris disposal in Cell 3 or Cell 4**

X = construction details and results of initial sampling event previously provided

Y = documentation of well construction shall be submitted **within 30 days of installation** in accordance with Specific Condition #E.5.b., and #E.5.d.; an initial sampling event shall be conducted **within 7 days of well installation and development** for the parameters listed in Specific Condition #E.4.b.

All monitor wells and piezometers are to be clearly labeled and easily visible at all times. The permittee should keep all monitor wells and piezometers locked to minimize unauthorized access.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

4. **Ground Water Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be reported at or below the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with the Class G-II ground water standards referenced in Chapter 62-520.420, F.A.C., and with the ground water minimum criteria referenced in Chapter 62-520.400, F.A.C. Compliance with ground water standards and minimum criteria shall be based on the analysis of unfiltered samples.

a. Ground water levels shall be measured at all active monitor wells and piezometers listed in Specific Condition #E.3., during all sampling events described in Specific Conditions #E.4.b., #E.4.c., and #E.8.b., to a precision of 0.01 foot. Ground water surface elevation contour maps of the surficial aquifer and of the Floridan aquifer shall be prepared for each set of water level measurements (using a consistent, nationally recognized datum) calculated for each monitor well and piezometer. The contour maps shall be submitted to the Department in the reports for the routine ground water sampling events (SC#E.10.) and the monitoring plan evaluations (SC#E.11.).

b. An "initial sampling event" shall be conducted **within 7 days of installation and development** of all new and replacement monitor wells for analysis of the following parameters:

Field Parameters

Static water levels  
before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
(by observation)

Laboratory Parameters

Total ammonia - N  
Chlorides  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix II

Iron  
Mercury  
Sodium

c. Background and detection wells 2MW-7, 4MW-7, 4MW-21 and 4MW-22 shall be sampled **semi-annually** (during the periods from January 1 to June 30, and from July 1 to December 31) for analysis of the following parameters:

Field Parameters

Static water levels  
before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
(by observation)

Laboratory Parameters

Total ammonia - N  
Chlorides  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix I

Iron  
Mercury  
Sodium

Following the completion of the "initial sampling event" at proposed well 4MW-23 in accordance with the schedule presented in Specific Condition #E.3., this new detection well shall be included in subsequent routine ground water sampling events.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

5. **Ground Water Monitor Well Construction.** The following information shall be submitted **within 90 days of installation of all** new or replacement wells or piezometers, or as stated below:

a. Prior to construction of all new or replacement wells (excluding proposed wells 4MW-21 through 4MW-23) or piezometers the permittee shall request and receive Department approval of a minor permit modification in accordance with Specific Condition #A.3.a.

b. Construction details (record drawings) for all new or replacement wells and piezometers shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (**attached**) [or as replaced by Department Form #62-701.900(30)].

c. **Within one week of well completion and development**, each new or replacement monitor well shall be sampled for the parameters listed in Specific Condition #E.4.b., to comply with the requirements of Rules 62-701.510(8)(a) and (8)(d), F.A.C.

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitor wells and piezometers (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, using a consistent, nationally recognized datum. The surveyed drawing shall include the monitor well and piezometer identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

6. **Well Abandonment.** All monitor wells and piezometers not a part of the approved Water Quality Monitoring Plan and not listed in Specific Condition #E.3., are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well/piezometer locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well/piezometer abandonment **within 30 days of abandonment**. A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

7. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's ground water quality standards or minimum criteria in any detection well, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring as described in Rule 62-701.510(7)(a), F.A.C. If monitoring parameters are detected at concentrations significantly above background water quality, and exceed the Department's ground water quality standards or minimum criteria in any compliance well, the Permittee shall submit a preventive measures plan and initiate corrective action as described in Rule 62-701.510(7)(b), F.A.C.



**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

8. **Surface Water Sampling.** All surface water bodies that may be affected by a contaminant release at the facility shall be monitored, except bodies of water contained completely within the property boundaries which do not discharge from the site to surface waters (Rule 62-701.510(4), F.A.C.). It is not anticipated that the existing stormwater management system will discharge from the property. However, in the event that a surface water discharge occurs from the stormwater management system, representative samples of each discharge event shall be collected for analysis of the parameters listed in Specific Condition #E.8.b. In the event that any modifications to the stormwater management system associated with future uses of the landfill result in periodic surface water discharges from the property, the Department may require the implementation of routine surface water monitoring.

a. The locations, parameters, and frequencies specified herein represent the minimum requirements for surface water monitoring. Additional samples, sampling locations, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the criteria for each parameter established in Chapter 62-302, F.A.C., to demonstrate compliance with Class III (predominantly fresh water) surface water standards. Compliance with surface water criteria will be based on analysis of unfiltered samples.

b. Surface water sampling shall be conducted at the point of discharge from the property **per discharge event** in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(4) and 62-701.510(6)(e), F.A.C. In the event that the discharge has ceased prior to being able to collect a sample, the closest location within the stormwater management system to the discharge location shall be sampled to represent that particular discharge event. The Solid Waste Section of the Department shall be notified of the occurrence of each discharge event **within 24 hours of discovery.** Surface water samples shall be analyzed for the following parameters:

<u>Field parameters</u>	<u>Laboratory parameters</u>	
Specific conductivity	Unionized ammonia	Total organic carbon (TOC)
pH	Total hardness	Total nitrogen
Dissolved oxygen	Total phosphates	Chemical oxygen demand
(COD)		
Turbidity	Chlorophyll A	Fecal coliform
Temperature	Copper	Biochemical oxygen demand
(BOD <sub>5</sub> )		
Colors and sheens	Iron	Total dissolved solids
(TDS)		
(by observation)	Mercury	Total suspended solids
(TSS)		
Nitrate	Zinc	

Those parameters listed in  
40 CFR Part 258, Appendix I

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

9. **Leachate Sampling.** Representative leachate samples (unfiltered) shall be collected from each of the locations described in Specific Condition #E.9.a., for the sampling events described in Specific Conditions #E.9.b., and #E.9.c. Leachate sampling shall be conducted in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C.

a. Representative leachate samples shall be collected from each of the leachate holding tanks at the locations shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (attached), as follow:

<u>Leachate Sample ID #</u>	<u>Landfill Cell</u>	<u>WACS Testsite ID #</u>
Tank #1	Cells #1 and #2	2507
Tank #2	Cells #3 and #4	2508

Individual leachate samples shall be collected from each of the leachate holding tanks for analysis of the parameters presented in Specific Condition #E.9.b., and #E.9.c. Leachate samples collected from Tank #1 and Tank #2 shall not be composited.

b. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

<u>Field Parameters</u>	<u>Laboratory Parameters</u>	
Specific conductivity	Total ammonia - N	Iron
pH	Bicarbonate	Mercury
Dissolved oxygen	Chlorides	Sodium
Colors & sheens (by observation)	Nitrate	
	Total dissolved solids (TDS)	
	<u>Those parameters listed in</u>	
	<u>40 CFR Part 258, Appendix II</u>	

c. If the leachate analyses indicate that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall provide notification to the Department in accordance with Specific Condition #C.6.b. In addition, the permittee shall initiate **monthly** leachate sampling at each of the locations listed in Specific Condition #E.9.a., for analysis of the parameters listed in Specific Condition #E.9.b. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

10. **Water Quality and Leachate Reporting Requirements.** The results of each ground water, surface water, and leachate sampling event conducted at the West Pasco Class III Landfill to comply with the Specific Conditions of this permit shall be included in reports that provide the following:

Electronic Data Deliverable (EDD) Portions of Report:

- An EDD on compact disk or flash drive media readable by Microsoft Windows in a format consistent with the requirements for evaluating the data and importing it into the Department databases that includes both field sampling data and laboratory data. The requirements for preparation of the EDD can be obtained on the Department's website at: <http://www.dep.state.fl.us/labs/dqa/adaptedms.htm>. The EDD shall provide the information required by Rules 62-701.510(9)(a)1 through 62-701.510(9)(a)7, F.A.C.

Hard Copy Portions of Report:

- Department Form 62-701.900(31) ["Water Quality Monitoring Certification"], certifying that the permittee has reviewed and approved the laboratory results;
- Certified laboratory report of results;
- Chain-of-custody documentation;
- Department SOP Form FD 9000-24 ["Ground Water Sampling Log"] for ground water sampling events; and,
- The information required by Rules 62-701.510(9)(a)8 through 62-701.510(9)(a)10, F.A.C.

The permittee shall submit to the Department results of analyses conducted for each sampling event conducted at the facility by the following due dates:

- a. Specific Condition #E.4.b. - results of ground water "initial sampling events" shall be submitted **within 60 days from completion of laboratory analyses;**
- b. Specific Condition #E.4.c. - results of ground water semi-annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> and July 15<sup>th</sup> of each year** for the periods July 1 to December 31, and January 1 to June 30, respectively;
- c. Specific Condition #E.7. - results of ground water verification events shall be submitted **within 60 days from completion of laboratory analyses;**
- d. Specific Condition #E.8.b. - results of surface water discharge sampling events shall be submitted **within 60 days from completion of laboratory analyses;**
- e. Specific Condition #E.9.b. - results of leachate annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> of each year** for the periods January 1 to December 31;
- f. Specific Condition #E.9.c. - results of monthly leachate sampling events shall be submitted **within 60 days from completion of laboratory analyses.**

The results shall be submitted to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

11. **Monitoring Plan Evaluation.** By November 1, 2010 and May 1, 2013, the permittee shall submit an evaluation of the water quality and leachate monitoring data. The periods of time to be covered by the evaluations are summarized below:

<u>Water Quality Monitoring Data Evaluation Due Date</u>	<u>Starting Sampling Event</u>	<u>Ending Sampling Event</u>
November 1, 2010	Second half 2006	First half 2010
May 1, 2013	Second half 2010	Second half 2012

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing facility design and operation as related to the prevention of ground water and surface water contamination. Any contamination that may exist shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C. The evaluations shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.

**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

**1. Landfill Gas - NPs and Title V Air Requirements.**

a. This solid waste permit will meet the statutory requirement to obtain an air construction permit before modifying or constructing a source of air pollution, except for those landfills that are subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. Facilities that are subject to the PSD requirements shall obtain an air construction permit from the Bureau of Air Regulation prior to beginning construction or modification pursuant to Rule 62-210.400, F.A.C.

b. The permittee shall comply with any applicable Title V air operation permit application requirements of Chapter 62-213, F.A.C., and 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Title V Permit applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill.

c. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 3900 Commonwealth Blvd., Tallahassee, FL 32399-3000, any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

**2. Gas Monitoring and Control.**

a. Landfills that receive degradable wastes shall have a gas management and control system designed to prevent explosions and fires, and to minimize off-site odors, lateral migration of gases and damage to vegetation. Landfill gas shall be monitored and controlled as required by Rules 62-701.500(9) and 62-701.530, F.A.C.

b. Landfill gas shall be monitored to demonstrate compliance with the criteria established in Rule 62-701.530(1)(a), F.A.C., (less than 25% of the lower explosive limit (LEL) for combustible gases in structures and less than 100% of the LEL for combustible gases at or beyond the property boundary).

c. The results of quarterly monitoring required by Rule 62-701.530(2)(c), F.A.C., conducted at the locations listed in Specific Condition #F.3., shall be submitted to the Department by the following dates:

<u>Measured During</u>	<u>Report Submitted By</u>
Quarter 1 (Jan - Mar)	April 15 <sup>th</sup> of each year
Quarter 2 (Apr - June)	July 15 <sup>th</sup> of each year
Quarter 3 (July - Sep)	October 15 <sup>th</sup> of each year
Quarter 4 (Oct - Dec)	January 15 <sup>th</sup> of each year

**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

3. **Gas Monitoring Locations.** Surficial aquifer monitor wells 2MW-7, 2MW-8 and 2MW-10 shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008," prepared by CDM, received March 21, 2008 (**attached**), and the adjacent scale house and operator's office structures shall be sampled at least quarterly for concentrations of combustible gases determined as a percent of the LEL calibrated to methane, as described in Rule 62-701.530(2), F.A.C. Landfill gas monitoring shall be conducted in accordance with Section 9 of the document entitled "Landfill Operations Plan For West Pasco Class III Landfill," prepared by CDM, dated October 2007, revised June 2008 [ref.SC#A.2.a(1)], at the following locations:

<u>Monitoring Locations</u>	<u>Location Description</u>
Well 2MW-7	South of Class III landfill
Well 2MW-8	West of Cell 1
Well 2MW-10	Near northwest corner of Class III landfill
Scale house	Near southwest corner of Class III landfill
Operator's office	Near southwest corner of Class III landfill

The monitor wells used as gas monitoring locations are to be clearly labeled and easily visible at all times.

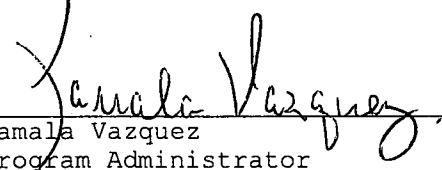
4. **Gas Remediation.** If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL calibrated to methane in structures or 100% of the LEL calibrated to methane at the property boundary, the permittee shall immediately take all necessary steps to ensure protection of human health and notify the Department. **Within 7 days** of detection, a gas remediation plan detailing the nature and extent of the problem and the proposed remedy shall be submitted to the Department for approval. The remedy shall be completed **within 60 days** of detection unless otherwise approved by the Department.

**SPECIFIC CONDITIONS: PART G - Closure and Long-Term Care Requirements**

1. **Closure Permit Requirements.** The landfill owner or operator shall submit a closure permit application to the Department, on DEP Form 62-701.900(1), for those portions of the landfill, which have reached design dimensions and grades. The permit application shall be submitted **at least 90 days prior** to the date when wastes will no longer be accepted for active portions of the landfill, as required by Rule 62-701.600(3), F.A.C., or in accordance with the conditions of an existing Department closure permit, whichever is sooner.
2. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed (shall receive final cover) within 180 days after reaching design dimensions, in accordance with Rule 62-701.500(7)(g), F.A.C. and all applicable requirements of Department rules.
3. **Long-Term Care Requirements.**
  - a. The owner or operator shall perform long-term care for the closed portions of the site in accordance with Rule 62-701.620, F.A.C., and the information submitted in the Attachment 2 of the Engineering Report.
  - b. Long-term care includes, but is not limited to, water quality, leachate and gas monitoring, maintenance of the final cover system, maintenance of the leachate collection and removal system, erosion control, and the prevention of ponding within disposal areas.
  - c. Prior to implementation, the owner or operator shall submit a plan for any proposed uses of the closed portions of the landfill to the Department for approval. This plan shall include a description of the proposed use, and evaluation of the impact on the existing landfill systems (e.g. final cover, leachate collection, bottom liner), engineering designs, calculations and plans as appropriate, etc. The proposed activity shall not be initiated without prior Department approval.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Pamala Vazquez  
Program Administrator  
Southwest District

ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
A.4.	No later than May 1, 2013	Submit permit renewal application
A.9.b.	Within 24 hours of discovery  Within 7 days of verbal notification	Notification of sinkholes or subsurface instability  Written notification & corrective action plan
B.2.a.	Within 60 days of completion	Submit certification of construction completion, record drawings, etc.
C.5.b.	Within 60 days of initial detection	Submit odor abatement plan
C.6.b.	Within 24 hours of discovery  Within 7 days of verbal notification	Notification of: hazardous waste receipt, failure of landfill systems or equipment, damage to leachate impoundments  Written notification & corrective action plan
C.6.c.	Within 60 days of written notification	Complete corrective actions for gradient or groundwater monitoring system
C.6.d.	Within 30 days of written notification	Implement corrective actions for leachate or stormwater management system
C.6.f.	Within 30 days of written notification from the Department	Submit corrective action plan for chronic erosion of intermediate cover.
C.8.c.(1)	No later than 30 days prior to expiration of leachate disposal agreements/contracts	Submit copies of contract/agreement renewal or new contracts/agreements
C.8.d.(3)	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> and October 15 <sup>th</sup> each year	Submit leachate generation reports
D.3.a.		Submit waste records to Tallahassee
C.8.e.(2)	No later than May 1, 2013	Submit report of jet cleaning and video inspection of LCS piping.
C.13.e.	Annually, by April 15 <sup>th</sup> each year	Submit Topographic survey & remaining capacity calculations
D.4.a.	Annually, by September 1 <sup>st</sup> each year	Submit revised cost estimates
D.4.b.	Annually	Submit proof of funding



ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
E.4.b.	Within 7 days of new well installation and development	Conduct initial sampling event
E.4.c.	Semi-annually	Sample background and detection wells
E.5.a.	Prior to installation of new wells	Request and received permit modification
E.5.b.	Within 90 days of installation of new wells	Provide construction details for wells
E.5.c.	Within 1 week of well development	Conduct initial sampling
E.5.d.	Within 90 days of installation of new wells	Provide survey drawing
E.6.	Within 30 days of well abandonment	Submit documentation of abandonment
E.7	Within 14 days of discovery	Notification of: monitoring parameters significantly above background water quality or exceeding ground water standards or minimum criteria
E.8.b.	Per discharge event	Sample surface water discharging from property
E.9.b.	Annually	Conduct leachate sampling
E.10.	Semi-annually, by January 15 <sup>th</sup> and July 15 <sup>th</sup> of each year  Annually, by January 15 <sup>th</sup> of each year  Within 60 days of completion of laboratory analyses	Submit ground water quality monitoring analyses (SC#E.4.c.)  Submit leachate quality monitoring analyses (SC#E.9.b.)  Submit initial ground water sampling results (SC#E.4.b.), ground water verification sampling results (SC#E.7.), surface water discharge event sampling results (SC#E.8.b.), and monthly leachate sampling events (SC#E.9.c.)
E.11.	November 1, 2010 and May 1, 2013	Submit monitoring plan evaluation reports
F.2.c.	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> , and October 15 <sup>th</sup> of each year	Submit results of routine landfill gas monitoring events
G.1.	No later than 90 days prior to the date when wastes will no longer be received	Submit Closure Permit application

**SITE Permit**

Site Name **PASCO CO. WEST PASCO CLASS III LF (LF3)** Site # **0026254**  
 County **PASCO** Comments  RPA's  # Cases **0**

**Project**

Permit # **0026254** - **002** - **SO** Project # **002** Received **06/16/2010** CRA # **354405**  
 Permit Office **SWD (DISTRICT)** Agency Action **Issued**  
 Project Name **WPASCO CO CLASS III LANDFILL** Desc:   
 Type/Sub/Des **SO** / **IM** **INTERMEDIATE MODIFICATION** WACS/ME ID **45799** OGC   
 Logged **06/17/2010** Issued **06/02/2011** Expires **06/02/2016** Application Action **MODIFICATION**  
 Fee **2000.00** Fee Recd **2000.00** Dele  COE #  Override **CORRECTION**

**Related Party**

Role **APPLICANT** Begin **06/17/2010** End   
 Name **KENNEDY, BRUCE E** Company **PASCO COUNTY UTILITIES SERVICES**  
 Address **7530 LITTLE ROAD S-205, PUBLIC WORKS BUILDING**  
 City **NEW PORT RICHEY** State **FL** Zip **34654** -  Country **U.S.A.**  
 Phone **727-847-8145** Fax **727-815-7034** Email

**Processors**

Processor **GASKIN\_H**  Active **06/17/2010** Inactive  **Events**



CL AREA SWD Logged Total CRAF006A  
\$5,000.00

**Collection Point Log Remittance**

Remittance ID	<u>888078</u>	Type *	<u>CP</u>	Received Date *	<u>06/16/2010</u>	Status	<u>RECEIVED</u>
System Receipt	<u>707285</u>	PNR		Check # *	<u>446497</u>	Amount *	<u>5,000.00</u>
SSNFEID	Name * <u>PASCO COUNTY-BOCC</u>						
First	Middle		Title		Suffix		
Address1	<u>7220 OSTEEN ROAD</u>						
Address2							
City	<u>NEW PORT RICHEY</u>	ST	<u>FL</u>	Zip	<u>34653</u>		
Country	Short Comments		<u>SO 26254-002</u>				

**PAYMENT (S)**

Payment ID	CL Area	Code/Description	Payment Amount	Reference#	Appl	Fund*	Grant*	Status
<u>1821038</u>	<u>SWD</u>	<u>8002245 SOLID WASTE OPE</u>	<u>\$5,000.00</u>		<u>PA</u>	<u>PFTF</u>		<u>COMPLETE</u>
<b>COMMIT FREQUENTLY</b>			<b>\$5,000.00</b>	<b>Payment Total</b>				



**SITE Permit**

Site Name PASCO CO. WEST PASCO CLASS III LF (LF3) Site # 0026254

County PASCO Comments N RPAs N # Cases 0

**Project**

Permit #   -   -   Project # 002 Received 06/16/2010 CRA # 354405

Permit Office SWD (DISTRICT) Agency Action Pending

Project Name W PASCO CO CLASS III LANDFILL Desc  

Type/Sub/Des SO IM INTERMEDIATE MODIFICATION WACS/ME ID 45799 OGC  

Logged 06/17/2010 Issued   Expires   Application Action MODIFICATION

Fee 2000.00 Fee Recd 2000.00 Delc   COE #   Override CORRECTION

**Related Party**

Role APPLICANT Begin 06/17/2010 End  

Name KENNEDY, BRUCE E Company PASCO COUNTY UTILITIES SERVICES

Address 7530 LITTLE ROAD S-205, PUBLIC WORKS BUILDING

City NEW PORT RICHEY State FL Zip 34654 Country U.S.A.

Phone 727-847-8145 Fax 727-815-7034 Email  

**Processors**

Processor GASKIN\_N Active 06/17/2010 Inactive   Events

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
  
Mr. Bruce E. Kennedy  
Assistant County Administrator  
Pasco County Utilities Services  
7530 Little Road  
New Port Richey, FL 34654

NOP = West Pasco CL 114 LF Mod  
# 26254-002-50/IM

2. Article Number 7009 1410 0001 0092 0932  
(Transfer from service label)

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
JEB  Addressee

B. Received by (Printed Name) D.D. AUGER C. Date of Delivery 6-3-11

D. FEDERAL DEPARTMENT OF ENVIRONMENTAL PROTECTION Form item 1?  Yes  
 Environmental Protection Service low:  No

JUN 06 2011

SOUTHWEST DISTRICT  
TAMPA

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

7009 1410 0001 0092 0932

U.S. Postal Service™

CERTIFIED MAIL™ RECEIPT

(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)®

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage		

Sent To

Street, Apt. No., or PO Box No.

City, State, ZIP.

Mr. Bruce E. Kennedy  
Assistant County Administrator  
Pasco County Utilities Services  
7530 Little Road  
New Port Richey, FL 34654

UNITED STATES POSTAL SERVICE



First-Class Mail  
Postage & Fees Paid  
USPS  
Permit No. G-10

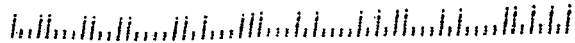
• Sender: Please print your name, address, and ZIP+4 in this box •

Florida Department of Environmental Protection  
Southwest District  
c/o Nancy Gaskin - Solid Waste  
13051 North Telecom Parkway  
Temple Terrace, FL 33637-0926

Dept. Of Environmental Protection

JUN 06 2011

Southwest District



**NOTICE OF PERMIT MODIFICATION**

**WEST PASCO CLASS III LANDFILL**

**Permit Mod.: 26254-002-SO/IM  
to existing  
Permit #26254-001-SO/T3  
WACS Facility #SWD/51/45799  
Pasco County**

Mailed June 2, 2011



# Florida Department of Environmental Protection

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

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard, Jr.  
Secretary

CERTIFIED MAIL 7009 1410 0001 0092 0932  
RETURN RECEIPT REQUESTED

June 2, 2011

In the matter of an  
Application for Permit by:

DEP File No. 26254-002-SO/IM  
Pasco County

Mr. Bruce Kennedy, P.E.  
Assistant County Administrator  
Pasco County Public Works/Utilities  
7530 Little Road,  
New Port Richey, Fl, 34654

## NOTICE OF PERMIT

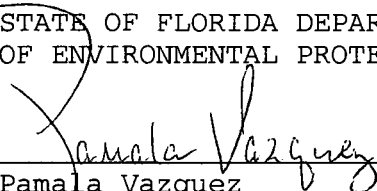
Dear Mr. Kennedy:

Enclosed is **Permit No.: 26254-002-SO/IM**, issued pursuant to Section(s) 403.087(1), Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Blvd., Mail Station 35, Tallahassee, 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
Pamala Vazquez  
District Director  
Southwest District

PV/ndg

Attachment

Pasco County Elected Officials Notification

Pasco County Notification List

R.J. Bruner, P.E., [Bo.Bruner@C2HMHill.com](mailto:Bo.Bruner@C2HMHill.com)

Fred Wick/Frank Hornbrook, FDEP Tallahassee, email

Richard Tedder, FDEP Tallahassee, email

Susan Pelz, P.E., FDEP SWD, email

Permit Notebook

**CERTIFICATE OF SERVICE**

This undersigned duly designated deputy clerk hereby certifies that this **Notice of Permit** was mailed to the addressee, and either mailed or transmitted electronically to the listed persons before the close of business on **June 2, 2011.**

(date)

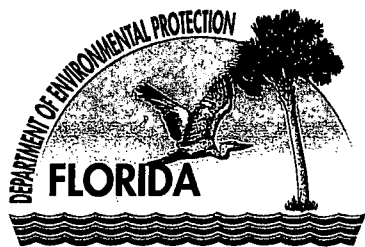
**FILING AND ACKNOWLEDGMENT FILED,**

on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Anna Brantly  
(Clerk)

6/2/2011  
(Date)





# Florida Department of Environmental Protection

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

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

Herschel T. Vinyard Jr.  
Secretary

**PERMITTEE**

Pasco County Board of  
County Commissioners  
7530 Little Road  
New Port Richey, Florida 34654  
c/o Mr. John Power, SW Manager

**PERMIT/CERTIFICATION**

WACS Facility ID No: SWD/51/45799  
Permit No: **26254-001-SO/T3**  
Date of Issue: **11/7/2008**  
Expiration Date: **11/7/2013**  
County: Pasco  
Lat/Long: 28°22'22"N  
82°34'06"W  
Sec/Town/Rge: 25&26/24S/17E  
Project: West Pasco Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522 and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or referenced in Specific Condition #A.2. and made a part hereof and specifically described as follows:

To operate, monitor, and maintain a Class III landfill (approximately 14.0 acres), referred to as the West Pasco Class III Landfill, and related ancillary facilities, subject to the specific and general conditions attached, located at 14230 Hays Road, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of a:

1. Class III Landfill
2. Leachate holding tanks system
3. Household Hazardous Waste Collection and Recycling Center (HHWCC)

**Replaces Permit No.: 26255-001-SO**

**Includes Modification #. 26254-002-SO/IM, issued 06/02/2011**

**General Information**

Disposal acres	Approx. 14 acres (Cells 1-4 - 3.5 acres each)
Lowest bottom elevation of Cells 1-4 (south end of Cell 1)	+45.0 ft. NGVD [ref. SC#A.2.b., Sheet C-6]
Top elevation at final buildout	Max. +79.26 ft NGVD [ref. SC#A.2.a.(3), Sheet I2]
Side slopes max.	4H:1V [ref. SC#A.2.a.(3), Sheet I2]
Liner system (bottom to top)	In-situ subgrade, 60 mil HDPE geomembrane, 2-foot drainage sand [ref. SC#A.2.b., Sheet C-10, Detail D]
LCS drainage system	Two 8-inch PE perforated LCS piping per cell, draining north to south within 2-foot drainage/protective sand layer [ref. SC#A.2.b., Sheet C-10, Detail D]  Cell 1 & 2 perforated LCS pipes drain to non-perforated 10-inch header pipe and leachate manhole for each cell. Cell 1 & 2 manholes drain to Leachate Tank No. 1. Cells 3 & 4 drain similarly to Leachate No. 2. Leachate from Tanks 1 & 2 drains to Shady Hills WWTP [ref. SC#A.2.b., Sheet C-6 and SC#A.2.a.(1), Figure No. 4]
Design life	45-55 years
Leachate storage tanks	Two below ground concrete leachate holding tanks, no secondary containment: nominal diameter = 10 ft diameter, approx. 11-12 ft deep. [ref. SC#A.2.b., Sheet C-8, Detail A]

This permit contains compliance items summarized in **Attachment 1** that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;

(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

GENERAL CONDITIONS:

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (a) Determination of Best Available Control Technology (BACT)
- (b) Determination of Prevention of Significant Deterioration (PSD)
- (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
- (d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

GENERAL CONDITIONS:

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware, the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

1. **Facility Designation.** This landfill shall be classified as a **Class III landfill and related facilities**, and shall be operated, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 62-330, 62-520, 62-522, 62-550, and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for operation of Cells 1-4 of the Class III landfill, the leachate holding tank system, and related ancillary facilities, in accordance with all applicable requirements of Department rules, the conditions of this permit, and in accordance with the reports, plans and information submitted by CDM, unless otherwise noted, as follows:

a. Operation Permit Renewal Application for West Pasco Class III Landfill, (one 3-ring binder & one spiral bound document) dated and received February 2, 2007, prepared by CDM, as revised, replaced or amended (information inserted into originals), dated and received April 19, 2007, dated October 5, 2007 (received October 8, 2007), dated and received December 28, 2007, dated March 20, 2008 (received March 21, 2008), dated and received June 25, 2008, and dated and received August 11, 2008. This information includes, but is not limited to:

- 1) Operations Plan, dated June 2008 [Section 3, Attachment 1] revised as listed in SC#A.2.c(1) below.
- 2) Groundwater Monitoring Plan, March 20, 2008 (revised August 11, 2008) [spiral bound document]; and
- 3) Plan Sheet titled, Sheet #12 "Final Closeout Cross Sections" signed and sealed January 21, 1988, revised and received June 25, 2008.

b. Plan Set titled, West Pasco County Class III Landfill Construction Drawings (Record Drawings May 10, 1991) (14 sheets), received July 7, 1995.

c. Solid Waste System Upgrade at West Pasco Solid Waste Management Facility, (one 3-ring binder)\* dated May 2010 (rcv'd June 16, 2010), prepared by CH2M Hill, as revised, replaced or amended (information inserted into originals), dated October 8, 2010 (rcv'd October 12, 2010), dated December 20, 2010 (rcv'd December 21, 2010), dated January 31, 2010 (rcv'd February 7, 2011). This information includes, but is not limited to:

- 1) Operations Plan, rcv'd December 21, 2010 inserted into original listed in SC#A.2.a(1) above. (Op. Plan)
- 2) Citizen Drop Off Operations Plan, rcv'd February 7, 2011, attached to Operations Plan and inserted into original listed in SC#A.2.a(1) above.
- 3) Plan Set titled, Contract Documents for the Construction of Pasco County Solid Waste Upgrade..., (33 Sheets), rcv'd February 7, 2011.

\*See Oculus for uncollated submittals.

New 06/02/2011

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

**3. Permit Modifications.**

a. Any construction or operation not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Any significant changes to the operations at the facility shall require a permit modification. Permits shall be modified in accordance with the requirements of Rule 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

**4. Permit Renewal. No later than May 1, 2013,** the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by Rule 62-701.320(10), F.A.C. Operation permit renewal shall include, but not be limited to, an updated operations plan, water quality monitoring plan, site plans for sequence of filling with cross-sections of lifts, and revised (not inflation-adjusted) financial assurance cost estimates.

**5. Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

**6. General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

**7. Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

**8. Regulations.** Chapter 62-701, F.A.C., effective January 6, 2010, is incorporated into this permit by reference. In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions

**Amended 06/02/2011**

**9. Prohibitions.**

a. The prohibitions of Rule 62-701.300, F.A.C., shall not be violated by the activities at this facility.

b. In the event that surface depressions which may be indicative of sinkhole activity, or subsurface instability, are discovered onsite, or within 500 feet of the site, the Department shall be notified in accordance with Specific Condition #C.6.b, below. Written notification shall be submitted **within 7 days of discovery**. The written notification shall include a description of the depression, the location and size of the depression shown on an appropriate plan sheet, and a corrective action plan which describes the actions necessary to prevent the unimpeded discharge of waste or leachate into ground or surface water.

c. Waste Burning. Open burning of solid waste is prohibited except in accordance with Rule 62-701.300(3) and Chapter 62-256, F.A.C. All fires which require longer than one (1) hour to extinguish must be promptly reported to the Department in accordance with Specific Condition #C.6.b., below.

**SPECIFIC CONDITIONS: PART B - Construction Requirements**

1. **Construction.** All significant construction activities shall be approved by the Department prior to initiating work, unless specifically authorized otherwise.

a. This permit authorizes the construction of a scale house and citizen drop off area and related appurtenances at the West Pasco Class III landfill only. [ref. SC#A.2.c.]  
New 06/02/2011

2. **Certification of Construction Completion.** All information required by this Specific Condition shall be signed and sealed by a registered professional engineer or land surveyor as appropriate.

a. **Within sixty (60) days** after any specified construction has been completed or as otherwise specified in this permit, the following activities shall be completed and submitted by the permittee to the Department. Operation of the constructed systems, structures, equipment, etc., shall not be initiated prior to Department approval of the information required by this Specific Condition.

1) The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer responsible for the construction to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.

2) The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include as-built plans details and elevations (survey) as appropriate.

3) The owner or operator shall submit a narrative indicating all changes in plans and the cause of the deviations, and certification by the design engineer to the Department.

4) The engineer of record shall provide a report to verify conformance with the project specifications. The report including all related testing results shall be submitted to the Department along with the completion of construction documents.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

**1. Facility Operation Requirements.**

a. The permittee shall operate this facility in accordance with Rule 62-701.500, F.A.C., the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], Operations Plan [ref. SC#A.2.a(1)], and any other applicable requirements.

1) Operation of the Waste Tire Facility shall be in accordance with Chapters 62-701 and 62-711, F.A.C., and Operation Permit 126935-002-WT/02 (including modifications, if any), or its successors.

2) Operation of the Yard Trash Processing Facility shall be in accordance with Chapter 62-709.320, F.A.C., and Yard Trash Processing Facility Registration No. 051-01-YT, or its successors.

3) The Household Hazardous Waste Collection/Storage Facility (HHWCC) shall be operated in accordance with the HHWCC Operating Plan and Contingency Plan, submitted by Pasco County on May 22, 1995.

b. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner and leachate management systems at any time during the construction or operation of this facility.

c. Waste shall not be disposed (unloaded, spread, or compacted) during non-daylight hours, unless sufficient lighting is provided to adequately observe the materials and remove unacceptable wastes.

**d. Site Inspections.**

1) The owner or operator shall inspect the site for erosion and settlement (low spots and improperly graded areas) **weekly** (twice per week during the wet seasons). Erosion and settlement shall be repaired in accordance with Specific Condition #C.6.

2) The owner or operator shall inspect the landfill facility for the presence of objectionable odors at the property boundary **daily on operating days**. In the event that objectionable odors are detected at the property boundary, the owner or operator shall abate the odors in accordance with the procedures in Section 9.B. of the Operations Plan.

3) The owner or operator shall inspect the area of the facility outside the working face area of the facility for litter **daily**. [ref. Op. Plan, Sec. 7]. In the event that the litter control program is ineffective, the operator shall notify the Department, and implement additional litter control measures **within 30 days**.

e. In the event of fire, hurricane or other severe natural event, inoperable equipment, lack of qualified personnel, or stormwater control problems which allow prolonged (**greater than 72 hours**) contact of ponded water with waste, the facility shall cease disposing waste in the affected area until appropriate drainage has been restored.



**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.1., cont'd)

f. Equipment. In the event of equipment breakdown or scheduled maintenance, the owner or operator shall ensure that sufficient reserve equipment is operating at the site within 24 hours of the occurrence. In the event that sufficient reserve equipment is not obtained within 24 hours, the permittee shall notify the Department in accordance with Specific Condition #C.6.b., below and provide a schedule for corrective actions.

g. Fires. In the event of a fire which requires offsite assistance from the local fire protection authorities, the Department shall be notified pursuant to Specific Condition C.6.b. below, and the owner or operator shall cease disposal of waste in the affected area until the fire has been completely extinguished, or as otherwise specified by the Department [ref. Op. Plan, Sec. 11.e.]. Trenches cut into the waste shall not be used to extinguish fires without prior Department approval.

h. Waste streams generated by the operation or maintenance of the facility and equipment shall be managed such that any residual contaminants (such as gasoline, oil, paint, antifreeze, PCBs, etc.) shall be stored such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the ground or into surface or groundwaters.

**2. Operating Personnel.**

a. A trained operator (trained in accordance with the Section 1 of the Operations Plan) shall be on duty at the facility whenever the facility is operating and shall be responsible for operating and maintaining the facility in an orderly, safe, and sanitary manner.

b. A sufficient number of trained spotters (at least one trained spotter) shall be at the tipping areas at all times that waste is being accepted at the facility to inspect each load of waste as it is unloaded and spread, and shall remove prohibited materials prior to processing [ref. Op. Plan, Sec. 2.c.]. Training of spotters shall be in accordance with the Section 1 of the Operations Plan.

c. A sufficient number of trained personnel shall be available to adequately operate the facility. In the event that a trained operator or spotter is not available at the site, the facility shall be closed and shall not accept debris. In the event that unacceptable wastes are not adequately removed from the waste prior to disposal, additional trained spotters shall be required.

d. The permittee shall notify the Department in writing of a change of the County's primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

3. **Control of Access.** Access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C. [ref. Op. Plan, Sec. 5]. Adequate access to the working face shall be provided for all weather conditions while the facility is receiving waste for disposal.
  
4. **Monitoring of Waste.**
  - a. Wastes shall be monitored as required by Rule 62-701.500(6), F.A.C., including a load checking program and associated activities. The owner or operator shall conduct three random load checks per week at the active working face [ref. Op. Plan, Sec. 6]. Documentation of the three random load checks, including descriptions (type and quantity) of unacceptable wastes discovered, shall be maintained on-site, and copies provided to the Department upon request [ref. SC#D.3.b(3)].
  
  - b. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous wastes are wastes listed in 40 CFR 261 Subpart D as hazardous or are wastes characterized in 40 CFR 261 Subpart C as hazardous. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with Rules 62-701.300(4) and 62-701.500(6)(b), F.A.C. In the event that hazardous wastes are discovered, the Department shall be notified in accordance with Specific Condition #C.6.b. and the waste shall be managed in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan.
  
5. **Control of Nuisance Conditions.**
  - a. The owner or operator shall control odors, vectors (mosquitoes, other insects, rodents), and fugitive particulates (dust, smoke) arising from the operation to protect the public health and welfare. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance.
  
  - b. In the event that the odor control measures performed at the facility, do not sufficiently abate objectionable odors offsite, **within sixty (60) days** of initial detection, the owner or operator shall submit an odor abatement plan to the Department for approval. The odor abatement plan shall include at a minimum, a description of the proposed corrective actions and a schedule for implementation.
  
6. **Facility Maintenance and Repair.**
  - a. The site shall be properly maintained including maintenance of access roads to disposal areas, equipment, stormwater and leachate management systems, leachate holding tanks, cover systems and berms, gas monitoring system, and groundwater monitoring system. Erosion and ponded water in disposal areas shall be prevented. Erosion in the stormwater management system shall be minimized.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.6., cont'd)

b. In the event of damage to any portion of the landfill site facilities, unauthorized leachate discharge, failure of any portion of the landfill systems, damaged or dry groundwater monitoring wells, damage to the liner or leachate collection, removal or treatment systems, fire, explosion, the development of sinkhole(s) or other subsurface instability at the site, landfill gas exceedances in onsite structures, etc., the permittee shall **immediately (within 24 hours)** notify the Department explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written, detailed notification shall be submitted to the Department within seven (7) days following the occurrence.

c. In the event that any portion of the groundwater monitoring system is damaged or unable to be sampled, corrective actions shall be completed **within sixty (60) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department. Corrective actions which include relocation or installation of new groundwater monitoring wells shall be in accordance with Specific Condition #E.5., or as otherwise approved by the Department.

d. In the event that the stormwater or leachate management systems or liner system is damaged or is not operating effectively, corrective actions shall be implemented **within thirty (30) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department.

e. Intermediately covered areas, or areas which discharge to the stormwater management system, which exhibit significant erosion shall be repaired as specified below:

1) **Within 7 days** if the soil cover materials have eroded such that greater than 50% of the soil in that location has been eroded, or

2) **By the end of the next working day** if waste or liner is exposed.

f. In the event that the intermediately covered side slopes exhibit chronic, "significant" erosion as defined above, a corrective action plan shall be submitted to the Department **within thirty (30) days** of written notification and request from the Department and corrective actions shall be implemented in accordance with the Department approved corrective action plan.

g. Areas which have received final cover, and which exhibit significant erosion as defined above, shall be repaired as specified in Specific Condition #C.6.e., above.

h. Settlement. Areas which exhibit settlement (low spots and improperly graded areas) that may cause ponding of water shall be repaired (additional soil placed, regraded, seeded and/or sodded) **within seven (7) days**.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

7. **Stormwater System Management.**

a. The site shall have a surface water management system designed, constructed, operated, and maintained to prevent surface water from running on to waste filled areas and the mixing of stormwater with leachate, and a stormwater runoff control system designed, constructed, operated, and maintained to collect and control stormwater to meet the requirements of Chapter 62-330, F.A.C., and the requirements for management and storage of surface water in accordance with Rule 62-701.500(10), F.A.C., to meet applicable standards of Chapters 62-3, 62-302, and 62-330, F.A.C. All stormwater conveyances shall be inspected monthly and after significant (greater than 2") rainfall events to verify adequate performance. Conveyances not performing adequately shall be repaired in accordance with the procedures specified in the Operations Plan. Documentation of all inspections and repairs shall be kept on file at the facility.

8. **Leachate Management.**

a. Leachate shall be managed in accordance with the requirements of Rule 62-701.500(8), F.A.C., the information in Section 2.j and Section 8 of the Operations Plan, and other applicable Department rules.

b. Leachate, which has accumulated in low areas within the disposal area shall be removed from the disposal area at least **daily**.

c. Leachate Disposal.

1) Leachate shall be pumped offsite for disposal at an appropriately permitted wastewater treatment facility (WWTP). No later than **thirty (30) days** prior to the expiration of any contracts or agreements for the disposal of leachate at wastewater treatment facilities, the permittee shall provide a copy of the contract renewal or the issuance of a new contract for leachate disposal.

2) In the event that the primary leachate disposal facility becomes unable or unwilling to accept leachate for disposal, **within three (3) days** of the cessation of leachate acceptance by the WWTP, the landfill owner or operator shall notify the Department and shall explain the contingency measures which will be implemented. The contingency measures shall be implemented **within seven (7) days** of the cessation of leachate acceptance at the WWTP, or in accordance with an alternate schedule approved by the Department.

d. Leachate Quantities.

1) Leachate quantities shall be measured and recorded in accordance with the procedures specified in Section 8 of the Operations Plan.

2) A rain gauge located on-site shall be used to compare precipitation with leachate generation. Rainfall data, in excess of one-tenth of an inch, shall be recorded by landfill personnel on a daily basis [ref. Op. Plan, Sec. 8].

3) Leachate generation reports shall be compiled monthly and submitted to the Department quarterly or more frequently if requested, by **January 15th, April 15th, July 15th and October 15th** each year. Leachate generation reports shall include precipitation amounts greater than one tenth of an inch, the number of open, intermediate and closed acres, and the quantities of leachate collected, stored, and hauled off-site to a wastewater treatment facility.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.8., cont'd)

e. Leachate Collection System Inspections/Maintenance.

1) Each manhole and leachate holding tank and related sensors and controller mechanisms shall be inspected on a monthly basis [ref. Op. Plan, Sec. 8]. Pumps showing reduced performance shall be removed for maintenance and repair, and a replacement pump installed if required for continued compliance.

2) **No later than February 1, 2013**, the entire leachate collection and removal system shall be water pressure cleaned and/or video inspected to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office **no later than May 1, 2013** to demonstrate adequate performance.

f. Leachate Storage Tanks.

1) In the event of failure of the tank overflow protection system (i.e. signal alarms and pump shut-off failure), the back-up contingency plan procedures specified in Section 8 of the Operations Plan shall be implemented.

9. **Special Wastes Handling Requirements.**

a. The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan; Rules 62-701.300(8) and 62-701.520, F.A.C.; and any other applicable Department rules, to protect the public safety, health and welfare. The special wastes shall be stored and managed such that discharge of contaminants to the environment is prevented. The special wastes shall be handled on a first-in, first-out basis. The special wastes shall be stored in a location which does not interfere with the sequence of filling.

b. Scrap metal. Scrap metal separated from the waste stream for recycling shall be stored within the designated metals storage area shown on Figure 1 of the Operations Plan and managed as described in the Operations Plan [ref. Op. Plan, Sec. 2.c.]. Scrap metals which may include residual contaminants such as gasoline, oil, paint, antifreeze, PCBs, etc., shall be stored and managed such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the soil or into surface or groundwaters.

c. White Goods. White goods shall be rejected and reloaded or kept undamaged and placed upright adjacent to the designated metals storage area shown on Figure 1 of the Operations Plan. White goods, which may contain chlorofluorocarbons (CFCs, such as Freon), shall be stored and managed in a manner such that the CFCs are not discharged to the atmosphere. White goods which have had the refrigerant appropriately removed shall be clearly marked and may be stored in the scrap metal storage area.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.9., cont'd)

d. Waste Tires. Tires inadvertently accepted at the facility and subsequently removed from waste stream shall be managed at the on-site waste tire processing facility in accordance with Chapters 62-701 and 62-711, F.A.C., and Waste Tire Collection Center Permit No. 126935-002-WT/02 (including modifications, if any), or its successors.

e. Other Special Wastes. Small items of special wastes (e.g. used oil, lead acid batteries, mercury-containing devices, etc) removed from the waste stream shall be sent to the HHWCC and managed in the designated areas for these wastes in accordance with the HHWCC Operating Plan and Contingency Plan [ref. SC #C.1.a.(3)].

f. Contaminated soil, excavated waste. Neither soils that are reasonably believed to be contaminated nor wastes excavated from the redevelopment of former disposal sites/areas, shall be disposed at this site. In order to ensure that these materials are not inadvertently received at the site, for all loads with large quantities of soil, **prior to the acceptance of the load**, the permittee shall request the following information for each load: name, address and phone number of generator (i.e., jobsite where material is generated), a certification from the generator that the material is not known to be contaminated and/or did not originate from a former waste disposal area.

g. Shredded/Processed Waste. Wastes that are not clearly identifiable by visual observation as Class III waste are prohibited from being accepted at this facility. Waste that has originated from excavation or redevelopment of old landfills or unpermitted dumps is considered Class I waste and is not authorized to be managed at this facility.

10. **Waste Handling Requirements.**

a. A sufficient number of spotters shall be utilized at the facility for removing unacceptable wastes. In the event that unacceptable wastes are not adequately removed due to inadequate personnel, additional trained spotters shall be required.

b. A trained spotter shall be positioned at the working face to inspect each load as it is being received, unloaded and as it is spread and compacted [ref. Op. Plan, Sec. 2.c.].

c. Unauthorized wastes shall be removed from the waste and stored in a 40 CY roll-off containers located immediately adjacent to (within 200 feet) the active face. The unacceptable waste container shall be removed for disposal within at the end of each working day or when full, whichever occurs first. [ref. Op. Plan, Secs. 2.c.].

d. Containers which store unauthorized wastes shall be covered/tarped at the end of each business day, when full, and in the event of inclement weather.

e. Unauthorized wastes shall be removed from the incoming loads immediately, and no other loads shall be dumped in the immediate vicinity until unauthorized materials have been removed and stored in the container provided for unacceptable wastes.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

11. **Waste Covering Requirements.** All solid waste disposed of in the Class III landfill shall be covered as required by Rule 62-701.500(7), F.A.C.

a. Initial Cover. Initial cover shall be applied and maintained at the Class III landfill in accordance with Rule 62-701.500(7)(e), F.A.C., so as to protect the public health and welfare.

1) All solid waste disposed of in the Class III disposal area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department (in writing), at the end of each working week [ref. Op. Plan, Sec. 7.].

b. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion [ref. Op. Plan, Sec. 7.].

c. Top gradients of intermediate cover shall be designed to prevent ponding or low spots and minimize erosion. **Daily**, the owner or operator shall operate the facility, maintain grades, or utilize berms and swales, to prevent ponded water within the disposal areas.

12. **Working Face.**

a. The permittee shall maintain a working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously that can be adequately spotted by the number of trained spotters at the facility. [ref. Op. Plan, Sec. 7.].

b. Interceptor berms shall be maintained around the working area to prevent leachate runoff from the working face from entering the stormwater management system and to minimize the formation of leachate [ref. Op. Plan, Sec. 7.].

13. **Method and Sequence of Filling.**

a. The method and sequence of filling shall be in accordance with the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], and as described in the Operations Plan [ref. Op. Plan, Secs. 2.f., 2.g. & 7.], or as otherwise approved in writing by the Department.

b. Waste shall be spread in 2 feet thick layers and compacted before applying the next layer of waste and in accordance with the method, procedures, and sequence described in the facility Operations Plan [ref. Op. Plan, Sec. 2.g.]. Cells shall be filled in approximate 10 foot lifts. Slopes shall be maintained in accordance with the Permit Drawings. The working face shall be no greater (steeper) than 3H:1V [ref. Op. Plan, Secs. 2.g. & 7.].

c. The permittee shall maintain and clearly stake/mark the location of the edge of the liner and maintain the locations as the landfill increases in elevation to prevent waste disposal and leachate runoff outside the geomembrane liner. The permittee shall maintain a minimum disposal setback of 5 feet from the inside top edge of the bottom liner system.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.13., cont'd)

d. Initial Waste Placement.

1) The first lift of waste shall be a minimum of four(4) feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system and shall be conducted in accordance with the procedures in Section 7 of the Operations Plan. At least 7 days prior to the initiation of waste placement in each cell, the Department shall be notified in order to allow Department observation of the select waste type and placement.

e. The owner or operator shall conduct a topographic survey of, and shall estimate the remaining disposal capacity and site life of each disposal area as required by Rule 62-701.500(13)(c), F.A.C. **Annually, no later than April 15<sup>th</sup> each year**, a copy of this survey, supporting capacity calculations, signed and sealed by a registered professional engineer and/or licensed professional land surveyor as appropriate shall be submitted to the Department. The survey shall demonstrate that the above-grade sideslopes are no greater than the design slopes, that the top elevation does not exceed design elevation, and that all other design features and related improvements conform to the Department-approved permit drawings. The capacity estimate shall include updated design lifetime calculations.



**SPECIFIC CONDITIONS: PART D - Recordkeeping**

1. **Report Submittals.**

a. Unless specified otherwise in this permit, all submittals, notifications, or requests for permit modification shall be provided to the Southwest District Solid Waste Section, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

2. **Operation Plan and Operating Record.**

a. Each landfill owner or operator shall have an operational plan which meets the requirements of Rule 62-701.500(2), F.A.C. A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections [ref. Op.Plan, Sec. L.3]. Operating records as required by Rule 62-701.500(3), F.A.C., are part of the operations plan, and shall also be maintained at the site.

b. Proposed changes to the current Department-approved **Operations Plan** shall be submitted in writing to the Department for review and may require a permit modification in accordance with Specific Condition #A.3. The **Operations Plan** shall be updated as operations change and for renewal of the permit. Revised pages shall be provided as replacement pages with revisions noted (deletions may be struckthrough (~~struckthrough~~) and additions may be underlined (underlined) or a similar method may be used) and each page numbered with the document title and date of revision.

3. **Waste Records.**

a. Waste records shall be maintained as required by Rule 62-701.500(4), F.A.C. The owner or operator of the facility shall weigh each load of waste as it is received (with scales at the facility) and record, in tons per day, the amount of waste debris and material received. This information shall be compiled **monthly** and submitted to the Department (Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, M.S. 4565, Tallahassee, Florida 32399-2400) **quarterly, by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup> of each year** [ref. Op.Plan, Sec. L.4]. Waste shall not be accepted for disposal at the landfill unless weight scales are available at the facility and are in proper working condition.

b. The following reports, documents and other information shall be kept at the facility for reference, and copies shall be provided to the Department upon request:

- 1) Waste quantity reports [ref. SC #D.3.a].
- 2) A log of the facility operator's inspections, and any subsequent corrective actions;
- 3) Load checking records;
- 4) Operator and spotter training certificates and other documentation; and
- 5) Log of odor complaints and corrective action.
- 6) Records as described in Rule 62-701.500(13). These records shall include all certifications for construction completion;
- 7) Documentation of incidents reported pursuant to Specific Condition C.6.;
- 8) Water quality and gas monitoring reports.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

4. **Financial Assurance.** The permittee shall provide adequate financial assurance for this facility and related appurtenances in accordance with Rule 62-701.630, F.A.C.

a. All costs for closure shall be adjusted and submitted for approval **annually, by September 1st each year** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

b. Proof that the financial mechanism has been adequately funded shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

**1. Water Quality Monitoring Quality Assurance.**

a. All field work done in connection with the facility's Water Quality Monitoring Plan regarding the collection of ground water, surface water and leachate samples shall be conducted in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001/01 dated February 1, 2004 [or as replaced by successor SOPs], as referenced in Rule 62-160.210(1), F.A.C. All laboratory analyses done in connection with the facility's Water Quality Monitoring Plan shall be conducted by firms that hold certificates from the Department of Health Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C., as referenced in Rule 62-160.300(1), 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 the permit and shall be implemented by all persons performing sample collection or analysis related to this permit. 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.

b. The field testing, sample collection and preservation and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

**2. Zone of Discharge.**

a. The zone of discharge for the West Pasco Class III landfill shall extend horizontally 100 feet from the limits of the landfill liner (all active, inactive and closed Class III waste disposal areas), or to the property boundary, whichever is less, and shall extend vertically to the first semi-confining unit within the upper Floridan aquifer.

b. The permittee shall ensure that the water quality standards for Class G-II ground water will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the ground water minimum criteria referenced in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the disposal areas.

**3. Ground Water Monitor Well Locations.** The ground water monitoring system locations for the West Pasco Class III landfill footprint (Cells 1 through 4) are designed and shall be constructed in accordance with the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM, dated March 2008, revised August 2008 [ref. SC#A.2.a.(2)]. The ground water monitor wells and piezometers are located on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (**attached**), as follow:

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

(Specific Condition #E.3., continued)

WACS

Testsite	Scheduling	Notes	Aquifer	Designation	Location
Well #	ID #				
2MW-7	2343	A, X	Surficial	Background	See Figure 3-1
4MW-7	2340	A, X	Floridan	Background	↓
4MW-21	23065	B, Y	Floridan	Detection	↓
4MW-22	23066	B, Y	Floridan	Detection	↓
4MW-23	23067	C, Y	Floridan	Detection	↓
2MW-3A	19671	A, X	Surficial	Piezometer	See Figure 3-1
4MW-3A	19670	A, X	Floridan	Piezometer	↓
2MW-8	2344	A, X	Surficial	Piezometer	↓
4MW-8	2341	A, X	Floridan	Piezometer	↓
2MW-9	2345	A, X	Surficial	Piezometer	↓
4MW-9	2342	A, X	Floridan	Piezometer	↓
2MW-10	2346	A, X	Surficial	Piezometer	↓

Proposed monitor well 4MW-21 shall be constructed in accordance with the details provided in Figure 3-6 ("Proposed Well Construction at Floridan Well 4MW-21"), received March 21, 2008, and proposed monitor wells 4MW-22 and 4MW-23 shall be constructed in accordance with the details provided in Figure 3-7 ("Proposed Well Construction at Floridan Wells 4MW-22 and 4MW-23"), received March 21, 2008, as referenced in Section 3.1.3 of the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM [ref. SC#A.2.a.(2)].

A = existing monitor well/piezometer

B = proposed monitor wells to be installed within 30 days of issuance of permit #26254-001-SO

C = proposed monitor well to be installed at least 30 days prior to initiation of debris disposal in Cell 3 or Cell 4

X = construction details and results of initial sampling event previously provided

Y = documentation of well construction shall be submitted within 30 days of installation in accordance with Specific Condition #E.5.b., and #E.5.d.; an initial sampling event shall be conducted within 7 days of well installation and development for the parameters listed in Specific Condition #E.4.b.

All monitor wells and piezometers are to be clearly labeled and easily visible at all times. The permittee should keep all monitor wells and piezometers locked to minimize unauthorized access.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

4. **Ground Water Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be reported at or below the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with the Class G-II ground water standards referenced in Chapter 62-520.420, F.A.C., and with the ground water minimum criteria referenced in Chapter 62-520.400, F.A.C. Compliance with ground water standards and minimum criteria shall be based on the analysis of unfiltered samples.

a. Ground water levels shall be measured at all active monitor wells and piezometers listed in Specific Condition #E.3., during all sampling events described in Specific Conditions #E.4.b., #E.4.c., and #E.8.b., to a precision of 0.01 foot. Ground water surface elevation contour maps of the surficial aquifer and of the Floridan aquifer shall be prepared for each set of water level measurements (using a consistent, nationally recognized datum) calculated for each monitor well and piezometer. The contour maps shall be submitted to the Department in the reports for the routine ground water sampling events (SC#E.10.) and the monitoring plan evaluations (SC#E.11.).

b. An "initial sampling event" shall be conducted **within 7 days of installation and development** of all new and replacement monitor wells for analysis of the following parameters:

**Field Parameters**

Static water levels  
 before purging  
 Specific conductivity  
 pH  
 Dissolved oxygen  
 Temperature  
 Turbidity  
 Colors & sheens  
 (by observation)

**Laboratory Parameters**

Total ammonia - N	Iron
Chlorides	Mercury
Nitrate	Sodium
Total dissolved solids (TDS)	
<u>Those parameters listed in</u>	
<u>40 CFR Part 258, Appendix II</u>	

c. Background and detection wells 2MW-7, 4MW-7, 4MW-21 and 4MW-22 shall be sampled **semi-annually** (during the periods from January 1 to June 30, and from July 1 to December 31) for analysis of the following parameters:

**Field Parameters**

Static water levels  
 before purging  
 Specific conductivity  
 pH  
 Dissolved oxygen  
 Temperature  
 Turbidity  
 Colors & sheens  
 (by observation)

**Laboratory Parameters**

Total ammonia - N	Iron
Chlorides	Mercury
Nitrate	Sodium
Total dissolved solids (TDS)	
<u>Those parameters listed in</u>	
<u>40 CFR Part 258, Appendix I</u>	

Following the completion of the "initial sampling event" at proposed well 4MW-23 in accordance with the schedule presented in Specific Condition #E.3., this new detection well shall be included in subsequent routine ground water sampling events.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

5. **Ground Water Monitor Well Construction.** The following information shall be submitted **within 90 days of installation of all** new or replacement wells or piezometers, or as stated below:

a. Prior to construction of all new or replacement wells (excluding proposed wells 4MW-21 through 4MW-23) or piezometers the permittee shall request and receive Department approval of a minor permit modification in accordance with Specific Condition #A.3.a.

b. Construction details (record drawings) for all new or replacement wells and piezometers shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (**attached**) [or as replaced by Department Form #62-701.900(30)].

c. **Within one week of well completion and development**, each new or replacement monitor well shall be sampled for the parameters listed in Specific Condition #E.4.b., to comply with the requirements of Rules 62-701.510(8)(a) and (8)(d), F.A.C.

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitor wells and piezometers (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, using a consistent, nationally recognized datum. The surveyed drawing shall include the monitor well and piezometer identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

6. **Well Abandonment.** All monitor wells and piezometers not a part of the approved Water Quality Monitoring Plan and not listed in Specific Condition #E.3., are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well/piezometer locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well/piezometer abandonment **within 30 days of abandonment**. A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

7. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's ground water quality standards or minimum criteria in any detection well, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring as described in Rule 62-701.510(7)(a), F.A.C. If monitoring parameters are detected at concentrations significantly above background water quality, and exceed the Department's ground water quality standards or minimum criteria in any compliance well, the Permittee shall submit a preventive measures plan and initiate corrective action as described in Rule 62-701.510(7)(b), F.A.C.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

8. **Surface Water Sampling.** All surface water bodies that may be affected by a contaminant release at the facility shall be monitored, except bodies of water contained completely within the property boundaries which do not discharge from the site to surface waters (Rule 62-701.510(4), F.A.C.). It is not anticipated that the existing stormwater management system will discharge from the property. However, in the event that a surface water discharge occurs from the stormwater management system, representative samples of each discharge event shall be collected for analysis of the parameters listed in Specific Condition #E.8.b. In the event that any modifications to the stormwater management system associated with future uses of the landfill result in periodic surface water discharges from the property, the Department may require the implementation of routine surface water monitoring.

a. The locations, parameters, and frequencies specified herein represent the minimum requirements for surface water monitoring. Additional samples, sampling locations, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the criteria for each parameter established in Chapter 62-302, F.A.C., to demonstrate compliance with Class III (predominantly fresh water) surface water standards. Compliance with surface water criteria will be based on analysis of unfiltered samples.

b. Surface water sampling shall be conducted at the point of discharge from the property **per discharge event** in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(4) and 62-701.510(6)(e), F.A.C. In the event that the discharge has ceased prior to being able to collect a sample, the closest location within the stormwater management system to the discharge location shall be sampled to represent that particular discharge event. The Solid Waste Section of the Department shall be notified of the occurrence of each discharge event **within 24 hours of discovery**. Surface water samples shall be analyzed for the following parameters:

<u>Field parameters</u>	<u>Laboratory parameters</u>	
Specific conductivity	Unionized ammonia	Total organic carbon (TOC)
pH	Total hardness	Total nitrogen
Dissolved oxygen (COD)	Total phosphates	Chemical oxygen demand
Turbidity	Chlorophyll A	Fecal coliform
Temperature (BOD <sub>5</sub> )	Copper	Biochemical oxygen demand
Colors and sheens (TDS)	Iron	Total dissolved solids
(by observation) (TSS)	Mercury	Total suspended solids
Nitrate	Zinc	

Those parameters listed in  
40 CFR Part 258, Appendix I

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

9. **Leachate Sampling.** Representative leachate samples (unfiltered) shall be collected from each of the locations described in Specific Condition #E.9.a., for the sampling events described in Specific Conditions #E.9.b., and #E.9.c. Leachate sampling shall be conducted in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6) (c), F.A.C.

a. Representative leachate samples shall be collected from each of the leachate holding tanks at the locations shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (**attached**), as follow:

<u>Leachate Sample ID #</u>	<u>Landfill Cell</u>	<u>WACS Testsite ID #</u>
Tank #1	Cells #1 and #2	2507
Tank #2	Cells #3 and #4	2508

Individual leachate samples shall be collected from each of the leachate holding tanks for analysis of the parameters presented in Specific Condition #E.9.b., and #E.9.c. Leachate samples collected from Tank #1 and Tank #2 shall not be composited.

b. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

<u>Field Parameters</u>	<u>Laboratory Parameters</u>	
Specific conductivity	Total ammonia - N	Iron
pH	Bicarbonate	Mercury
Dissolved oxygen	Chlorides	Sodium
Colors & sheens (by observation)	Nitrate	
	Total dissolved solids (TDS)	
	<u>Those parameters listed in</u>	
	<u>40 CFR Part 258, Appendix II</u>	

c. If the leachate analyses indicate that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall provide notification to the Department in accordance with Specific Condition #C.6.b. In addition, the permittee shall initiate **monthly** leachate sampling at each of the locations listed in Specific Condition #E.9.a., for analysis of the parameters listed in Specific Condition #E.9.b. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.



**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

10. **Water Quality and Leachate Reporting Requirements.** The results of each ground water, surface water, and leachate sampling event conducted at the West Pasco Class III Landfill to comply with the Specific Conditions of this permit shall be included in reports that provide the following:

**Electronic Data Deliverable (EDD) Portions of Report:**

- An EDD on compact disk or flash drive media readable by Microsoft Windows in a format consistent with the requirements for evaluating the data and importing it into the Department databases that includes both field sampling data and laboratory data. The requirements for preparation of the EDD can be obtained on the Department's website at: <http://www.dep.state.fl.us/labs/dqa/adaptedms.htm>. The EDD shall provide the information required by Rules 62-701.510(9)(a)1 through 62-701.510(9)(a)7, F.A.C.

**Hard Copy Portions of Report:**

- Department Form 62-701.900(31) ["Water Quality Monitoring Certification"], certifying that the permittee has reviewed and approved the laboratory results;
- Certified laboratory report of results;
- Chain-of-custody documentation;
- Department SOP Form FD 9000-24 ["Ground Water Sampling Log"] for ground water sampling events; and,
- The information required by Rules 62-701.510(9)(a)8 through 62-701.510(9)(a)10, F.A.C.

The permittee shall submit to the Department results of analyses conducted for each sampling event conducted at the facility by the following due dates:

- a. Specific Condition #E.4.b. - results of ground water "initial sampling events" shall be submitted **within 60 days from completion of laboratory analyses;**
- b. Specific Condition #E.4.c. - results of ground water semi-annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> and July 15<sup>th</sup> of each year** for the periods July 1 to December 31, and January 1 to June 30, respectively;
- c. Specific Condition #E.7. - results of ground water verification events shall be submitted **within 60 days from completion of laboratory analyses;**
- d. Specific Condition #E.8.b. - results of surface water discharge sampling events shall be submitted **within 60 days from completion of laboratory analyses;**
- e. Specific Condition #E.9.b. - results of leachate annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> of each year** for the periods January 1 to December 31;
- f. Specific Condition #E.9.c. - results of monthly leachate sampling events shall be submitted **within 60 days from completion of laboratory analyses.**

The results shall be submitted to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

11. **Monitoring Plan Evaluation.** By November 1, 2010 and May 1, 2013, the permittee shall submit an evaluation of the water quality and leachate monitoring data. The periods of time to be covered by the evaluations are summarized below:

<u>Water Quality Monitoring Data Evaluation Due Date</u>	<u>Starting Sampling Event</u>	<u>Ending Sampling Event</u>
November 1, 2010	Second half 2006	First half 2010
May 1, 2013	Second half 2010	Second half 2012

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing facility design and operation as related to the prevention of ground water and surface water contamination. Any contamination that may exist shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C. The evaluations shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.

**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

**1. Landfill Gas - NPs and Title V Air Requirements.**

a. This solid waste permit will meet the statutory requirement to obtain an air construction permit before modifying or constructing a source of air pollution, except for those landfills that are subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. Facilities that are subject to the PSD requirements shall obtain an air construction permit from the Bureau of Air Regulation prior to beginning construction or modification pursuant to Rule 62-210.400, F.A.C.

b. The permittee shall comply with any applicable Title V air operation permit application requirements of Chapter 62-213, F.A.C., and 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Title V Permit applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill.

c. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 3900 Commonwealth Blvd., Tallahassee, FL 32399-3000, any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

**2. Gas Monitoring and Control.**

a. Landfills that receive degradable wastes shall have a gas management and control system designed to prevent explosions and fires, and to minimize off-site odors, lateral migration of gases and damage to vegetation. Landfill gas shall be monitored and controlled as required by Rules 62-701.500(9) and 62-701.530, F.A.C.

b. Landfill gas shall be monitored to demonstrate compliance with the criteria established in Rule 62-701.530(1)(a), F.A.C., (less than 25% of the lower explosive limit (LEL) for combustible gases in structures and less than 100% of the LEL for combustible gases at or beyond the property boundary).

c. The results of quarterly monitoring required by Rule 62-701.530(2)(c), F.A.C., conducted at the locations listed in Specific Condition #F.3., shall be submitted to the Department by the following dates:

<u>Measured During</u>	<u>Report Submitted By</u>
Quarter 1 (Jan - Mar)	April 15 <sup>th</sup> of each year
Quarter 2 (Apr - June)	July 15 <sup>th</sup> of each year
Quarter 3 (July - Sep)	October 15 <sup>th</sup> of each year
Quarter 4 (Oct - Dec)	January 15 <sup>th</sup> of each year

**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

3. **Gas Monitoring Locations.** Surficial aquifer monitor wells 2MW-7, 2MW-8 and 2MW-10 shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008," prepared by CDM, received March 21, 2008 (**attached**), and the adjacent scale house and operator's office structures shall be sampled at least quarterly for concentrations of combustible gases determined as a percent of the LEL calibrated to methane, as described in Rule 62-701.530(2), F.A.C. Landfill gas monitoring shall be conducted in accordance with Section 9 of the document entitled "Landfill Operations Plan For West Pasco Class III Landfill," prepared by CDM, dated October 2007, revised June 2008 [ref.SC#A.2.a(1)], at the following locations:

<u>Monitoring Locations</u>	<u>Location Description</u>
Well 2MW-7	South of Class III landfill
Well 2MW-8	West of Cell 1
Well 2MW-10	Near northwest corner of Class III landfill
Scale house	Near southwest corner of Class III landfill
Operator's office	Near southwest corner of Class III landfill

The monitor wells used as gas monitoring locations are to be clearly labeled and easily visible at all times.

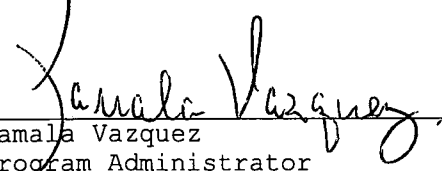
4. **Gas Remediation.** If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL calibrated to methane in structures or 100% of the LEL calibrated to methane at the property boundary, the permittee shall immediately take all necessary steps to ensure protection of human health and notify the Department. **Within 7 days** of detection, a gas remediation plan detailing the nature and extent of the problem and the proposed remedy shall be submitted to the Department for approval. The remedy shall be completed **within 60 days** of detection unless otherwise approved by the Department.

**SPECIFIC CONDITIONS: PART G - Closure and Long-Term Care Requirements**

1. **Closure Permit Requirements.** The landfill owner or operator shall submit a closure permit application to the Department, on DEP Form 62-701.900(1), for those portions of the landfill, which have reached design dimensions and grades. The permit application shall be submitted **at least 90 days prior** to the date when wastes will no longer be accepted for active portions of the landfill, as required by Rule 62-701.600(3), F.A.C., or in accordance with the conditions of an existing Department closure permit, whichever is sooner.
2. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed (shall receive final cover) within 180 days after reaching design dimensions, in accordance with Rule 62-701.500(7)(g), F.A.C. and all applicable requirements of Department rules.
3. **Long-Term Care Requirements.**
  - a. The owner or operator shall perform long-term care for the closed portions of the site in accordance with Rule 62-701.620, F.A.C., and the information submitted in the Attachment 2 of the Engineering Report.
  - b. Long-term care includes, but is not limited to, water quality, leachate and gas monitoring, maintenance of the final cover system, maintenance of the leachate collection and removal system, erosion control, and the prevention of ponding within disposal areas.
  - c. Prior to implementation, the owner or operator shall submit a plan for any proposed uses of the closed portions of the landfill to the Department for approval. This plan shall include a description of the proposed use, and evaluation of the impact on the existing landfill systems (e.g. final cover, leachate collection, bottom liner), engineering designs, calculations and plans as appropriate, etc. The proposed activity shall not be initiated without prior Department approval.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Pamala Vazquez  
Program Administrator  
Southwest District

ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
A.4.	No later than May 1, 2013	Submit permit renewal application
A.9.b.	Within 24 hours of discovery	Notification of sinkholes or subsurface instability
	Within 7 days of verbal notification	Written notification & corrective action plan
B.2.a.	Within 60 days of completion	Submit certification of construction completion, record drawings, etc.
C.5.b.	Within 60 days of initial detection	Submit odor abatement plan
C.6.b.	Within 24 hours of discovery	Notification of: hazardous waste receipt, failure of landfill systems or equipment, damage to leachate impoundments
	Within 7 days of verbal notification	Written notification & corrective action plan
C.6.c.	Within 60 days of written notification	Complete corrective actions for gradient or groundwater monitoring system
C.6.d.	Within 30 days of written notification	Implement corrective actions for leachate or stormwater management system
C.6.f.	Within 30 days of written notification from the Department	Submit corrective action plan for chronic erosion of intermediate cover.
C.8.c.(1)	No later than 30 days prior to expiration of leachate disposal agreements/contracts	Submit copies of contract/agreement renewal or new contracts/agreements
C.8.d.(3)	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> and October 15 <sup>th</sup> each year	Submit leachate generation reports
D.3.a.		Submit waste records to Tallahassee
C.8.e.(2)	No later than May 1, 2013	Submit report of jet cleaning and video inspection of LCS piping.
C.13.e.	Annually, by April 15 <sup>th</sup> each year	Submit Topographic survey & remaining capacity calculations
D.4.a.	Annually, by September 1 <sup>st</sup> each year	Submit revised cost estimates
D.4.b.	Annually	Submit proof of funding

ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
E.4.b.	Within 7 days of new well installation and development	Conduct initial sampling event
E.4.c.	Semi-annually	Sample background and detection wells
E.5.a.	Prior to installation of new wells	Request and received permit modification
E.5.b.	Within 90 days of installation of new wells	Provide construction details for wells
E.5.c.	Within 1 week of well development	Conduct initial sampling
E.5.d.	Within 90 days of installation of new wells	Provide survey drawing
E.6.	Within 30 days of well abandonment	Submit documentation of abandonment
E.7	Within 14 days of discovery	Notification of: monitoring parameters significantly above background water quality or exceeding ground water standards or minimum criteria
E.8.b.	Per discharge event	Sample surface water discharging from property
E.9.b.	Annually	Conduct leachate sampling
E.10.	Semi-annually, by January 15 <sup>th</sup> and July 15 <sup>th</sup> of each year  Annually, by January 15 <sup>th</sup> of each year  Within 60 days of completion of laboratory analyses	Submit ground water quality monitoring analyses (SC#E.4.c.)  Submit leachate quality monitoring analyses (SC#E.9.b.)  Submit initial ground water sampling results (SC#E.4.b.), ground water verification sampling results (SC#E.7.), surface water discharge event sampling results (SC#E.8.b.), and monthly leachate sampling events (SC#E.9.c.)
E.11.	November 1, 2010 and May 1, 2013	Submit monitoring plan evaluation reports
F.2.c.	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> , and October 15 <sup>th</sup> of each year	Submit results of routine landfill gas monitoring events
G.1.	No later than 90 days prior to the date when wastes will no longer be received	Submit Closure Permit application

# Memorandum

# Florida Department of Environmental Protection

## PERMIT COVER MEMO

TO:  Pamala Vazquez, Program Administrator *PLV 6-2-11*

FROM/THROUGH:

William Kutash ENVIRONMENTAL ADMINISTRATOR  
Susan Pelz, P.E. *Susan Pelz* PROGRAM MANAGER  
Nancy Gaskin *N/G 6/2* SOLID WASTE SECTION

DATE: June 2, 2011

FILE NAME: West Pasco CL III Landfill

MODIFICATION #: 26254-002-SO/IM

PERMIT #: 26254-001-SO/T3

COUNTY : Pasco

PROGRAM : Solid Waste

TYPE OF PERMIT ACTION:  ISSUE FINAL PERMT

PUBLIC NOTICE PERIOD CLOSED?  yes  no PETITION FILED?  yes  no

PERMIT SUMMARY: This is a permit for the construction of a new scale house, scales, and citizen drop off area and an existing Class III Disposal facility.

PROFESSIONAL RECOMMENDATION:  APPROVE  DENY

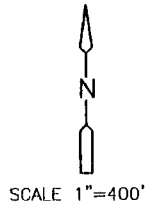
EVALUATION SUMMARY: The applicant has provided sufficient information to demonstrate compliance with Department Rules.

To 06/02/11: TIH=350 TTP=176		TTP
Application received	06/16/10	
RAI #1 sent	07/15/10	29
Response to RAI rec'd	10/12/10	
RAI #2 sent	11/03/10	28
Response to RAI rec'd	12/21/11	
RAI #3 sent	01/20/11	30
Response to RAI rec'd	02/07/11	
Application complete	02/07/11	
Intent to issue sent	05/04/11	88
Proof of pub rec'd	05/18/11	
Appl. Active (day= 87 )	06/01/11	
Final permit for routing	06/01/11	2

DAY 90/30 FOR THIS ACTION IS: ASAP: Day 90 = 06/04/11



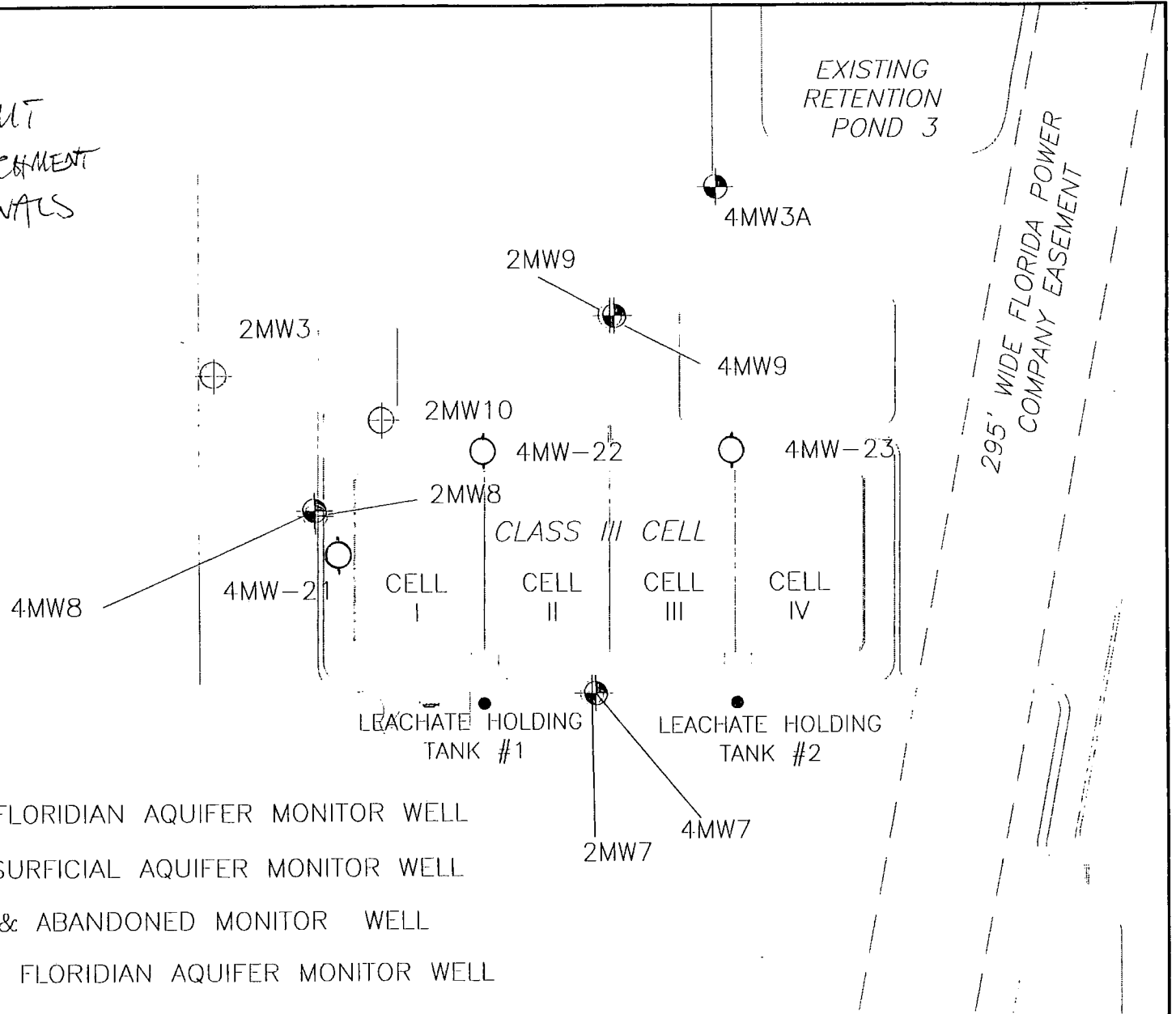
C:\Documents and Settings\kepciova\My Desktop\Herr\AutoCAD drawings\West pasco class III landfill\WQM



SCALE 1"=400'

PERMIT ATTACHMENT ORIGINALS

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHWEST DISTRICT  
MAR 21 2008  
TAMPA



LEGEND

- 4MW2 EXISTING FLORIDIAN AQUIFER MONITOR WELL
- 2MW2 EXISTING SURFICIAL AQUIFER MONITOR WELL
- PLUGGED & ABANDONED MONITOR WELL
- PROPOSED FLORIDIAN AQUIFER MONITOR WELL



consulting • engineering • construction • operations

FIGURE 3-1  
GROUNDWATER MONITOR WELLS AT THE  
WEST PASCO COUNTY CLASS III LANDFILL

DEP Form # 62-522.900(3)
Form Title <b>MONITOR WELL COMPLETION REPORT</b>
Effective Date _____
DEP Application No. _____ (Filled in by DEP)

**Florida Department of Environmental Protection**  
Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

## MONITOR WELL COMPLETION REPORT

DATE: \_\_\_\_\_

INSTALLATION NAME: \_\_\_\_\_

DEP PERMIT NUMBER: \_\_\_\_\_ GMS NUMBER: \_\_\_\_\_

WELL NUMBER: \_\_\_\_\_ WELL NAME: \_\_\_\_\_

DESIGNATION: Background \_\_\_\_\_ Immediate \_\_\_\_\_ Compliance \_\_\_\_\_

LATITUDE/LONGITUDE: \_\_\_\_\_

AQUIFER MONITORED: \_\_\_\_\_

INSTALLATION METHOD: \_\_\_\_\_

INSTALLED BY: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_ (bls) DEPTH OF SCREEN: \_\_\_\_\_ (bls)

SCREEN LENGTH: \_\_\_\_\_ SCREEN SLOT SIZE: \_\_\_\_\_ SCREEN TYPE: \_\_\_\_\_

CASING DIAMETER: \_\_\_\_\_ CASING TYPE: \_\_\_\_\_

LENGTH OF CASING: \_\_\_\_\_ FILTER PACK MATERIAL: \_\_\_\_\_

TOP OF CASING ELEVATION (MSL): \_\_\_\_\_

GROUND SURFACE ELEVATION (MSL): \_\_\_\_\_

COMPLETION DATE: \_\_\_\_\_

DESCRIBE WELL DEVELOPMENT: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

POST DEVELOPMENT WATER LEVER ELEVATION (MSL): \_\_\_\_\_

DATE AND TIME MEASURED: \_\_\_\_\_

REMARKS: (soils information, stratigraphy, etc.): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REPORT PREPARED BY: \_\_\_\_\_  
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

(bls)= Below Land Surface

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** 'Bo.Bruner@CH2MHill.com'  
**Sent:** Thursday, June 02, 2011 7:36 PM  
**Subject:** Delivery Delayed: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

**Delivery is delayed to these recipients or distribution lists:**

'Bo.Bruner@CH2MHill.com'

Subject: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

This message has not yet been delivered. Microsoft Exchange will continue to try delivering the message on your behalf.

Delivery of this message will be attempted until 6/7/2011 3:31:22 PM (GMT-05:00) Eastern Time (US & Canada). Microsoft Exchange will notify you if the message can't be delivered by that time.

---

Sent by Microsoft Exchange Server 2007

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** Commissioner Ann Hildebrand; Commissioner Henry Wilson; Commissioner Jack Mariano; Commissioner Pat Mulieri; Commissioner Ted Schrader; County Administrator John Gallagher; Pasco County Commissioners  
**Sent:** Thursday, June 02, 2011 3:32 PM  
**Subject:** Relayed: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

Commissioner Ann Hildebrand

Commissioner Henry Wilson

Commissioner Jack Mariano

Commissioner Pat Mulieri

Commissioner Ted Schrader

County Administrator John Gallagher

Pasco County Commissioners

Subject: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

---

Sent by Microsoft Exchange Server 2007

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** Representative John Legg; Representative Peter Nehr; Representative Richard Corcoran; Representative Robert Schenck; Representative Shawn Harrison; Representative Will Weatherford; Representnative Rich Glorioso  
**Sent:** Thursday, June 02, 2011 3:32 PM  
**Subject:** Relayed: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

Representative John Legg

Representative Peter Nehr

Representative Richard Corcoran

Representative Robert Schenck

Representative Shawn Harrison

Representative Will Weatherford

Represetnative Rich Glorioso

Subject: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

---

Sent by Microsoft Exchange Server 2007

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** Wick, Fred; Tedder, Richard; Pelz, Susan; Hornbrook, Frank  
**Sent:** Thursday, June 02, 2011 3:31 PM  
**Subject:** Delivered: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

**Your message has been delivered to the following recipients:**

Wick, Fred

Tedder, Richard

Pelz, Susan

Hornbrook, Frank

Subject: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

---

Sent by Microsoft Exchange Server 2007

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** Gaskin, Nancy  
**Sent:** Thursday, June 02, 2011 3:31 PM  
**Subject:** Delivered: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

**Your message has been delivered to the following recipients:**

Gaskin, Nancy

Subject: West Pasco CL III LF\_NOP\_26254-002-SO-IM issued 6-2-2011.pdf (SECURED) - Adobe Acrobat Professional

---

Sent by Microsoft Exchange Server 2007



# PASCO COUNTY, FLORIDA

DADE CITY (352) 521-4274  
LAND O' LAKES (813) 235-6012  
NEW PORT RICHEY (727) 847-8145  
FAX (727) 847-8083

UTILITIES SERVICES BRANCH  
PUB. WKS./UTILITIES BLDG., S-213  
7530 LITTLE ROAD  
NEW PORT RICHEY, FL 34654-5598  
[bkennedy@pascocountyfl.net](mailto:bkennedy@pascocountyfl.net)

May 16, 2011

Ms. Pamala Vazquez  
Program Administrator  
Southwest District  
Florida Department of  
Environmental Protection  
13051 N. Telecom Pkwy.  
Temple Terrace, FL 33637-0926

Dept. Of Environmental Protection  
MAY 18 2011  
Southwest District

RE: Notice of Proposed Agency Action on Permit Application  
Pasco County Scale House and Citizen Drop-off Area  
Management of Class III Waste at 14230 Hays Road, Spring Hill, FL  
Modification No. 26254-002-SO/IM; Permit No. 26254-001-SO/T3  
PCU06-048.00

Dear Ms. Vazquez:

Pursuant to Section 403.815, Florida Statutes and Rule 62-110.106, F.A.C., enclosed please find an original Proof of Publication for the above-referenced project. The advertisement appeared in the Pasco Section of The St. Petersburg Times.

We request issuance of permit as soon as the fourteen (14) days to file petitions has elapsed, so that we may proceed with this project.

Your assistance is appreciated and if you have any questions, please do not hesitate to contact me at the above-listed telephone number.

Sincerely,

Bruce E. Kennedy, P.E.  
Assistant County Administrator  
Utility Services

Enclosure

BEK/mvv/mydocs/Vazquez, Pamala, Notice of Proposed Agency Action on Permit Application

cc: John J. Gallagher, County Administrator  
Joseph D. Richards, Chief Assistant County Attorney  
Glenn Greer, Utility Engineering and Contract Management Director  
John Power, Solid Waste Facility Manager  
James Hircock, Environmental Compliance Specialist

**"Focused on Service, Committed to Excellence" for "Bringing Opportunities Home"**



# PASCO TIMES

An Edition of the St. Petersburg Times

Published Daily

Port Richey, Pasco County, Florida

## STATE OF FLORIDA COUNTY OF PASCO:

Before the undersigned authority personally appeared Jessica Attard who on oath says that she is Legal Clerk of the Pasco Times a daily newspaper published at Port Richey, in Pasco County, Florida: that the attached copy of advertisement, being a Legal Notice in the matter of RE: Notice of Proposed Agency Action

\_\_\_\_\_ in the \_\_\_\_\_ Court was published in said newspaper in the issues of May 13, 2011

Affiant further says the said Pasco Times is a newspaper published at Port Richey, in said Pasco County, Florida, and that the said newspaper has heretofore been continuously published in said Pasco County, Florida, each day and has been entered as second class mail matter at the post office in Port Richey in said Pasco County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm, or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Jessica Attard  
Signature of Affiant

Sworn to and subscribed before me this 13th day of May, 2011.

Lori A Showen

Signature of Notary Public



LORI A. SHOWEN  
MY COMMISSION # DD 89116  
EXPIRES: June 9, 2013  
Bonded Thru Budget Notary Service

## State of Florida Department of Environmental Protection Notice of Proposed Agency Action on Permit Application

The Department gives notice of its intent to issue a permit to Pasco County Public Works/Utilities, Mr. Bruce Kennedy, Assistant County Administrator, who applied on June 16, 2010, to the Department of Environmental Protection to construct a scale house and citizen drop off area and related appurtenances for the management of Class III waste at 14230 Hays Rd., Spring Hill, Pasco County, Florida. This permit application includes construction and operation of the scale house and citizen drop off area and related systems.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below, and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Blvd., MS#35, Tallahassee, Florida 32399-3000, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of Department's action, or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rules 62-110.106, 28-106.201, and 28-106.301 F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at 13051 N. Telecom

Personally known X or produced identification \_\_\_\_\_

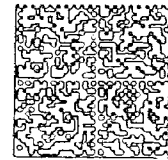
Type of identification produced \_\_\_\_\_



Mr. Bruce E. Kennedy, P.E.  
Utilities Services Branch  
7536 State Street  
New Port Richey, FL 34654-5598



PRESORTED  
FIRST CLASS



UNITED STATES POSTAGE  
FIFTY CENTS  
\$ 00.41<sup>4</sup>  
02 1M  
0008002298 MAY 17 2011  
MAILED FROM ZIP CODE 34654

Ms. Pamala Vazquez  
Program Administrator  
Southwest District  
Florida Department of  
Environmental Protection  
13051 N. Telecom Pkwy.  
Temple Terrace, FL 33637-0926

DEX-911 33637



**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Bruce E. Kennedy  
 Assistant County Administrator  
 Pasco County Utilities Services  
 7530 Little Road  
 New Port Richey, FL 34654

WBT PASCO CL III CP  
 Intent To Issue or Permit Mod  
 # 26254-002-50/3M to  
 Existing Permit # 26254-001-50/13

2. Article Number

7008 0150 0003 4893 9005

(Transfer from service label)

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

*[Handwritten Signature]*  
 BAUGHMAN 5/6

Agent

Addressee

B. Recipient (Printed Name)

C. Date of Delivery

D. Is delivery address different from the address on the label? If YES, enter delivery address below.

Yes

No

MAY 09 2011

SOUTHWEST DISTRICT  
 TAMPA

3. Service Type

Certified Mail

Express Mail

Registered

Return Receipt for Merchandise

Insured Mail

C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes

7008 0150 0003 4893 9005

<p><b>U.S. Postal Service™</b>  <b>CERTIFIED MAIL™ RECEIPT</b>                  (Domestic Mail Only; No Insurance Coverage Provided)</p>	
<p>For delivery information visit our website at <a href="http://www.usps.com">www.usps.com</a></p>	
<p><b>OFFICIAL USE</b></p>	
<p>Postage \$</p> <p>Certified Fee</p> <p>Return Receipt Fee (Endorsement Required)</p> <p>Restricted Delivery Fee (Endorsement Required)</p> <p>Total Postage :</p>	<p>Postmark Here</p>
<p>Sent To</p> <p>Street, Apt. No., or PO Box No.</p> <p>City, State, ZIP+</p>	<p>Mr. Bruce E. Kennedy                  Assistant County Administrator                  Pasco County Utilities Services                  7530 Little Road                  New Port Richey, FL 34654</p>
<p>PS Form 3800, August 2006</p>	
<p>See Reverse for Instructions</p>	

UNITED STATES POSTAL SERVICE



First-Class Mail  
Postage & Fees Paid  
USPS  
Permit No. G-10

- Sender: Please print your name, address, and ZIP+4 in this box •

Florida Department of Environmental Protection  
Southwest District  
c/o Nancy Gaskin - Solid Waste  
13051 North Telecom Parkway  
Temple Terrace, FL 33637-0926

Dept. Of Environment  
MAY 09 2011  
Southwest District



**NOTICE OF INTENT TO ISSUE  
PERMIT MODIFICATION**

**West Pasco Class III Landfill**

**Permit Modification # 26254-002-SO/IM  
to existing**

**Permit #26254-001-SO/T3  
WACS Facility #SWD/51/45799  
Pasco County**

Mailed May 4, 2011



# Florida Department of Environmental Protection

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

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard Jr.  
Secretary

May 4, 2011

CERTIFIED MAIL 7008 0150 0003 4893 9005  
RETURN RECEIPT REQUESTED

In the matter of an  
Application for Permit by:

Modification No. 26254-002-SO/IM  
To Permit No. 26254-001-SO/T3  
Pasco County  
WACS ID# 45799

Mr. Bruce Kennedy, P.E.  
Assistant County Administrator  
Pasco County Public Works/Utilities  
7530 Little Road,  
New Port Richey, Fl, 34654

## INTENT TO ISSUE

The Department of Environmental Protection hereby gives notice of its Intent to Issue a permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated below. The applicant, Pasco County Public Works/Utilities, Mr. Bruce Kennedy, Assistant County Administrator applied on June 16, 2010, to the Department of Environmental Protection for a permit to construct a scale house and citizen drop off area and related appurtenances at an existing Class III Solid Waste Landfill facility at 14230 Hays Road, Spring Hill, Pasco County, Florida.

The Department has permitting jurisdiction under 403.707 and 403.861, Florida Statutes, and Rules 62-4, and 62-701, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that a permit modification is required for the proposed work.

The Department intends to issue this permit based on its belief that reasonable assurances have been provided to indicate that the proposed project will not adversely impact water quality and the proposed project will comply with appropriate provisions of Chapters 62-4, 62-301, 62-330, 62-520, 62-522, and 62-701, F.A.C., subject to the specific conditions attached in the permit. Pursuant to Section 403.815, Florida Statutes and Rule 62-110.106, F.A.C., **you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on Permit Application.** The notice must be published one time only within thirty (30) days of receipt of this intent in the legal ad section of a newspaper of general circulation in the area affected. Proof of publication must be provided to the Department **within seven (7) days** of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit. The Department will issue the permit with the attached conditions unless petition for administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, Florida Statutes.

The Department's proposed agency action shall become final unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, Florida Statutes (F.S.), before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the

Department at 3900 Commonwealth Boulevard, Mail Station 35,  
Tallahassee, Florida 32399-3000.

Petitions by the applicant or any of the parties listed below must be filed within 14 days of receipt of this written notice. Petitions filed by other persons must be filed within 14 days of publication of the notice or receipt of the written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of such notice, regardless of the date of publication. The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;



(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

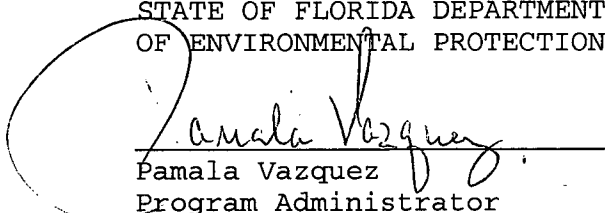
In accordance with Section 120.573, F.S., the Department advises that mediation is not available in this case under the provisions of that statute. This does not prevent any interested parties from agreeing to other forms of alternate dispute resolution.

Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, Mail Station 35, 3900

Commonwealth Boulevard, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Pamala Vazquez  
Program Administrator  
Southwest District

PV/ndg  
Attachment

Pasco County Board of County Commissioners  
Pasco County Notification List  
R.J. Bruner, P.E., [Bo.Bruner@C2HMHill.com](mailto:Bo.Bruner@C2HMHill.com)  
Ronni Moore, OGC Tallahassee (email)  
Fred Wick/Frank Hornbrook, FDEP Tallahassee (email)  
Richard Tedder, P.E., FDEP Tallahassee (email)

**CERTIFICATE OF SERVICE**

This undersigned duly designated deputy clerk hereby certifies that this **INTENT to ISSUE** was mailed to the addressee, and either mailed or transmitted electronically to the listed persons before the close of business on May 4, 2011.  
(date)

**FILING AND ACKNOWLEDGMENT FILED,**  
on this date, pursuant to  
Section 120.52(11), Florida  
Statutes, with the designated  
Department Clerk, receipt of which  
is hereby acknowledged.

Anna Brantley  
(Clerk)

5/4/2011  
(Date)

**State of Florida**  
**Department of Environmental Protection**  
**Notice of Proposed Agency Action on Permit Application**

The Department gives notice of its intent to issue a permit to Pasco County Public Works/Utilities, Mr. Bruce Kennedy, Assistant County Administrator, who applied on June 16, 2010, to the Department of Environmental Protection to construct a scale house and citizen drop off area and related appurtenances for the management of Class III waste at 14230 Hays Rd., Spring Hill, Pasco County, Florida. **This permit application includes construction and operation of the scale house and citizen drop off area and related systems.**

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below, and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Blvd., MS#35, Tallahassee, Florida 32399-3000, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

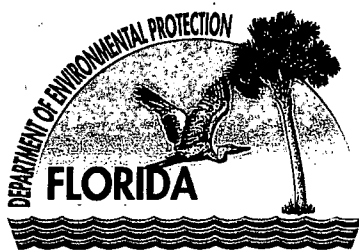
The petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of Department's action, or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rules 62-110.106, 28-106.201, and 28-106.301 F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at 13051 N. Telecom Parkway, Temple Terrace, Fl. 33637-0926.



# Florida Department of Environmental Protection

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

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T.  
Vinyard, Jr.  
Secretary

**PERMITTEE**

Pasco County Board of  
County Commissioners  
7530 Little Road  
New Port Richey, Florida 34654  
c/o Mr. John Power, SW Manager

**PERMIT/CERTIFICATION**

WACS Facility ID No: SWD/51/45799  
Permit No: **26254-001-SO/T3**  
Date of Issue: **11/7/2008**  
Expiration Date: **11/7/2013**  
County: Pasco  
Lat/Long: 28°22'22"N  
82°34'06"W  
Sec/Town/Rge: 25&26/24S/17E  
Project: West Pasco Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522 and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or referenced in Specific Condition #A.2. and made a part hereof and specifically described as follows:

To operate, monitor, and maintain a Class III landfill (approximately 14.0 acres), referred to as the West Pasco Class III Landfill, and related ancillary facilities, subject to the specific and general conditions attached, located at 14230 Hays Road, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of a:

1. Class III Landfill
2. Leachate holding tanks system
3. Household Hazardous Waste Collection and Recycling Center (HHWCC)

**Replaces Permit No.: 26255-001-SO**

**Includes Modification #. 26254-002-SO/IM, issued \_\_\_\_\_**

**General Information**

Disposal acres	Approx. 14 acres (Cells 1-4 - 3.5 acres each)
Lowest bottom elevation of Cells 1-4 (south end of Cell 1)	+45.0 ft. NGVD [ref. SC#A.2.b, Sheet C-6]
Top elevation at final buildout	Max. +79.26 ft NGVD [ref. SC#A.2.a.(3), Sheet I2]
Side slopes max.	4H:1V [ref. SC#A.2.a.(3), Sheet I2]
Liner system (bottom to top)	In-situ subgrade, 60 mil HDPE geomembrane, 2-foot drainage sand [ref. SC#A.2.b, Sheet C-10, Detail D]
LCS drainage system	Two 8-inch PE perforated LCS piping per cell, draining north to south within 2-foot drainage/protective sand layer [ref. SC#A.2.b, Sheet C-10, Detail R]  Cell 1 & 2 perforated LCS pipes drain to non-perforated 10-inch header pipe and leachate manhole for each cell. Cell 1 & 2 manholes drain to Leachate Tank No. 1. Cells 3 & 4 drain similarly to Leachate No. 2. Leachate from Tanks 1 & 2 drains to Shady Hills WWTP [ref. SC#A.2.b, Sheet C-6 and SC#A.2.a.(1), Figure No. 4]
Design life	45-55 years
Leachate storage tanks	Two below ground concrete leachate holding tanks, no secondary containment: nominal diameter = 10 ft diameter, approx. 11-12 ft deep. [ref. SC#A.2.b, Sheet C-8, Detail A]

This permit contains compliance items summarized in **Attachment 1** that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

DRAFT

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - (a) Have access to and copy any records that must be kept under conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

**GENERAL CONDITIONS:**

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (a) Determination of Best Available Control Technology (BACT)
- (b) Determination of Prevention of Significant Deterioration (PSD)
- (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
- (d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.



**GENERAL CONDITIONS:**

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware, the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

1. **Facility Designation.** This landfill shall be classified as a **Class III landfill and related facilities**, and shall be operated, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 62-330, 62-520, 62-522, 62-550, and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.
2. **Permit Application Documentation.** This permit is valid for operation of Cells 1-4 of the Class III landfill, the leachate holding tank system, and related ancillary facilities, in accordance with all applicable requirements of Department rules, the conditions of this permit, and in accordance with the reports, plans and information submitted by CDM, unless otherwise noted, as follows:
  - a. Operation Permit Renewal Application for West Pasco Class III Landfill, (one 3-ring binder & one spiral bound document) dated and received February 2, 2007, prepared by CDM, as revised, replaced or amended (information inserted into originals), dated and received April 19, 2007, dated October 5, 2007 (received October 8, 2007), dated and received December 28, 2007, dated March 20, 2008 (received March 21, 2008), dated and received June 25, 2008, and dated and received August 11, 2008. This information includes, but is not limited to:
    - 1) Operations Plan, dated June 2008 [Section 3, Attachment 1] revised as listed in SC#A.2.c(1) below.
    - 2) Groundwater Monitoring Plan, March 20, 2008 (revised August 11, 2008) [spiral bound document]; and
    - 3) Plan Sheet titled, Sheet #12 "Final Closeout Cross Sections" signed and sealed January 21, 1988, revised and received June 25, 2008.
  - b. Plan Set titled, West Pasco County Class III Landfill Construction Drawings (Record Drawings May 10, 1991) (14 Sheets), received July 7, 1995.
  - c. Solid Waste System Upgrade at West Pasco Solid Waste Management Facility, (one 3-ring binder)\* dated May 2010 (rcv'd June 16, 2010), prepared by CH2M Hill, as revised, replaced or amended (information inserted into originals), dated October 8, 2010 (rcv'd October 12, 2010), dated December 20, 2010 (rcv'd December 21, 2010), dated January 31, 2010 (rcv'd February 7, 2011). This information includes, but is not limited to:
    - 1) Operations Plan, rcv'd December 21, 2010 inserted into original listed in SC#A.2.a(1) above. (Op. Plan)
    - 2) Citizen Drop Off Operations Plan, rcv'd February 7, 2011, attached to Operations Plan and inserted into original listed in SC#A.2.a(1) above.
    - 3) Plan Set titled, Contract Documents for the Construction of Pasco County Solid Waste Upgrade... ., (33 Sheets), rcv'd February 7, 2011.

\*See Oculus for uncollated submittals.

New

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

**3. Permit Modifications.**

a. Any construction or operation not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Any significant changes to the operations at the facility shall require a permit modification. Permits shall be modified in accordance with the requirements of Rule 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

**4. Permit Renewal. No later than May 1, 2013,** the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by Rule 62-701.320(10), F.A.C. Operation permit renewal shall include, but not be limited to, an updated operations plan, water quality monitoring plan, site plans for sequence of filling with cross-sections of lifts, and revised (not inflation-adjusted) financial assurance cost estimates.

**5. Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

**6. General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

**7. Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

**8. Regulations.** Chapter 62-701, F.A.C., effective January 6, 2010, is incorporated into this permit by reference. In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions

Amended \_\_\_\_\_

**9. Prohibitions.**

a. The prohibitions of Rule 62-701.300, F.A.C., shall not be violated by the activities at this facility.

b. In the event that surface depressions which may be indicative of sinkhole activity, or subsurface instability, are discovered onsite, or within 500 feet of the site, the Department shall be notified in accordance with Specific Condition #C.6.b, below. Written notification shall be submitted **within 7 days of discovery**. The written notification shall include a description of the depression, the location and size of the depression shown on an appropriate plan sheet, and a corrective action plan which describes the actions necessary to prevent the unimpeded discharge of waste or leachate into ground or surface water.

c. Waste Burning. Open burning of solid waste is prohibited except in accordance with Rule 62-701.300(3) and Chapter 62-256, F.A.C. All fires which require longer than one (1) hour to extinguish must be promptly reported to the Department in accordance with Specific Condition #C.6.b., below.

**SPECIFIC CONDITIONS: PART B - Construction Requirements**

1. **Construction.** All significant construction activities shall be approved by the Department prior to initiating work, unless specifically authorized otherwise.

a. This permit authorizes the construction of a scale house and citizen drop off area and related appurtenances at the West Pasco Class III landfill only. [ref. SC#A.2.c.]

**New**

2. **Certification of Construction Completion.** All information required by this Specific Condition shall be signed and sealed by a registered professional engineer or land surveyor as appropriate.

a. **Within sixty (60) days** after any specified construction has been completed or as otherwise specified in this permit, the following activities shall be completed and submitted by the permittee to the Department. Operation of the constructed systems, structures, equipment, etc., shall not be initiated prior to Department approval of the information required by this Specific Condition.

1) The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer responsible for the construction to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.

2) The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include as-built plans details and elevations (survey) as appropriate.

3) The owner or operator shall submit a narrative indicating all changes in plans and the cause of the deviations, and certification by the design engineer to the Department.

4) The engineer of record shall provide a report to verify conformance with the project specifications. The report including all related testing results shall be submitted to the Department along with the completion of construction documents.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

**1. Facility Operation Requirements.**

a. The permittee shall operate this facility in accordance with Rule 62-701.500, F.A.C., the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], Operations Plan [ref. SC#A.2.a(1)], and any other applicable requirements.

1) Operation of the Waste Tire Facility shall be in accordance with Chapters 62-701 and 62-711, F.A.C., and Operation Permit 126935-002-WT/02 (including modifications, if any), or its successors.

2) Operation of the Yard Trash Processing Facility shall be in accordance with Chapter 62-709.320, F.A.C., and Yard Trash Processing Facility Registration No. 051-01-YT, or its successors.

3) The Household Hazardous Waste Collection/Storage Facility (HHWCC) shall be operated in accordance with the HHWCC Operating Plan and Contingency Plan, submitted by Pasco County on May 22, 1995.

b. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner and leachate management systems at any time during the construction or operation of this facility.

c. Waste shall not be disposed (unloaded, spread, or compacted) during non-daylight hours, unless sufficient lighting is provided to adequately observe the materials and remove unacceptable wastes.

d. Site Inspections.

1) The owner or operator shall inspect the site for erosion and settlement (low spots and improperly graded areas) **weekly** (twice per week during the wet seasons). Erosion and settlement shall be repaired in accordance with Specific Condition #C.6.

2) The owner or operator shall inspect the landfill facility for the presence of objectionable odors at the property boundary **daily on operating days**. In the event that objectionable odors are detected at the property boundary, the owner or operator shall abate the odors in accordance with the procedures in Section 9.B. of the Operations Plan.

3) The owner or operator shall inspect the area of the facility outside the working face area of the facility for litter **daily**. [ref. Op. Plan, Sec. 7]. In the event that the litter control program is ineffective, the operator shall notify the Department, and implement additional litter control measures **within 30 days**.

e. In the event of fire, hurricane or other severe natural event, inoperable equipment, lack of qualified personnel, or stormwater control problems which allow prolonged (**greater than 72 hours**) contact of ponded water with waste, the facility shall cease disposing waste in the affected area until appropriate drainage has been restored.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.1., cont'd)

f. Equipment. In the event of equipment breakdown or scheduled maintenance, the owner or operator shall ensure that sufficient reserve equipment is operating at the site within 24 hours of the occurrence. In the event that sufficient reserve equipment is not obtained within 24 hours, the permittee shall notify the Department in accordance with Specific Condition #C.6.b., below and provide a schedule for corrective actions.

g. Fires. In the event of a fire which requires offsite assistance from the local fire protection authorities, the Department shall be notified pursuant to Specific Condition C.6.b. below, and the owner or operator shall cease disposal of waste in the affected area until the fire has been completely extinguished, or as otherwise specified by the Department [ref. Op. Plan, Sec. 11.e.]. Trenches cut into the waste shall not be used to extinguish fires without prior Department approval.

h. Waste streams generated by the operation or maintenance of the facility and equipment shall be managed such that any residual contaminants (such as gasoline, oil, paint, antifreeze, PCBs, etc.) shall be stored such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the ground or into surface or groundwaters.

**2. Operating Personnel.**

a. A trained operator (trained in accordance with the Section 1 of the Operations Plan) shall be on duty at the facility whenever the facility is operating and shall be responsible for operating and maintaining the facility in an orderly, safe, and sanitary manner.

b. A sufficient number of trained spotters (at least one trained spotter) shall be at the tipping areas at all times that waste is being accepted at the facility to inspect each load of waste as it is unloaded and spread, and shall remove prohibited materials prior to processing [ref. Op. Plan, Sec. 2.c.]. Training of spotters shall be in accordance with the Section 1 of the Operations Plan.

c. A sufficient number of trained personnel shall be available to adequately operate the facility. In the event that a trained operator or spotter is not available at the site, the facility shall be closed and shall not accept debris. In the event that unacceptable wastes are not adequately removed from the waste prior to disposal, additional trained spotters shall be required.

d. The permittee shall notify the Department in writing of a change of the County's primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

3. **Control of Access.** Access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C. [ref. Op. Plan, Sec. 5]. Adequate access to the working face shall be provided for all weather conditions while the facility is receiving waste for disposal.
4. **Monitoring of Waste.**
  - a. Wastes shall be monitored as required by Rule 62-701.500(6), F.A.C., including a load checking program and associated activities. The owner or operator shall conduct three random load checks per week at the active working face [ref. Op. Plan, Sec. 6]. Documentation of the three random load checks, including descriptions (type and quantity) of unacceptable wastes discovered, shall be maintained on-site, and copies provided to the Department upon request [ref. SC#D.3.b(3)].
  - b. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous wastes are wastes listed in 40 CFR 261 Subpart D as hazardous or are wastes characterized in 40 CFR 261 Subpart C as hazardous. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with Rules 62-701.300(4) and 62-701.500(6)(b), F.A.C. In the event that hazardous wastes are discovered, the Department shall be notified in accordance with Specific Condition #C.6.b. and the waste shall be managed in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan.
5. **Control of Nuisance Conditions.**
  - a. The owner or operator shall control odors, vectors (mosquitoes, other insects, rodents), and fugitive particulates (dust, smoke) arising from the operation to protect the public health and welfare. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance.
  - b. In the event that the odor control measures performed at the facility, do not sufficiently abate objectionable odors offsite, **within sixty (60) days** of initial detection, the owner or operator shall submit an odor abatement plan to the Department for approval. The odor abatement plan shall include at a minimum, a description of the proposed corrective actions and a schedule for implementation.
6. **Facility Maintenance and Repair.**
  - a. The site shall be properly maintained including maintenance of access roads to disposal areas, equipment, stormwater and leachate management systems, leachate holding tanks, cover systems and berms, gas monitoring system, and groundwater monitoring system. Erosion and ponded water in disposal areas shall be prevented. Erosion in the stormwater management system shall be minimized.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.6., cont'd)

b. In the event of damage to any portion of the landfill site facilities, unauthorized leachate discharge, failure of any portion of the landfill systems, damaged or dry groundwater monitoring wells, damage to the liner or leachate collection, removal or treatment systems, fire, explosion, the development of sinkhole(s) or other subsurface instability at the site, landfill gas exceedances in onsite structures, etc., the permittee shall **immediately (within 24 hours)** notify the Department explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written, detailed notification shall be submitted to the Department within seven (7) days following the occurrence.

c. In the event that any portion of the groundwater monitoring system is damaged or unable to be sampled, corrective actions shall be completed **within sixty (60) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department. Corrective actions which include relocation or installation of new groundwater monitoring wells shall be in accordance with Specific Condition #E.5., or as otherwise approved by the Department.

d. In the event that the stormwater or leachate management systems or liner system is damaged or is not operating effectively, corrective actions shall be implemented **within thirty (30) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department.

e. Intermediately covered areas, or areas which discharge to the stormwater management system, which exhibit significant erosion shall be repaired as specified below:

- 1) **Within 7 days** if the soil cover materials have eroded such that greater than 50% of the soil in that location has been eroded, or
- 2) **By the end of the next working day** if waste or liner is exposed.

f. In the event that the intermediately covered side slopes exhibit chronic, "significant" erosion as defined above, a corrective action plan shall be submitted to the Department **within thirty (30) days** of written notification and request from the Department and corrective actions shall be implemented in accordance with the Department approved corrective action plan.

g. Areas which have received final cover, and which exhibit significant erosion as defined above, shall be repaired as specified in Specific Condition #C.6.e., above.

h. Settlement. Areas which exhibit settlement (low spots and improperly graded areas) that may cause ponding of water shall be repaired (additional soil placed, regraded, seeded and/or sodded) **within seven (7) days.**



**SPECIFIC CONDITIONS: PART C - Operation Requirements**

7. **Stormwater System Management.**

a. The site shall have a surface water management system designed, constructed, operated, and maintained to prevent surface water from running on to waste filled areas and the mixing of stormwater with leachate, and a stormwater runoff control system designed, constructed, operated, and maintained to collect and control stormwater to meet the requirements of Chapter 62-330, F.A.C., and the requirements for management and storage of surface water in accordance with Rule 62-701.500(10), F.A.C., to meet applicable standards of Chapters 62-3, 62-302, and 62-330, F.A.C. All stormwater conveyances shall be inspected monthly and after significant (greater than 2") rainfall events to verify adequate performance. Conveyances not performing adequately shall be repaired in accordance with the procedures specified in the Operations Plan. Documentation of all inspections and repairs shall be kept on file at the facility.

8. **Leachate Management.**

a. Leachate shall be managed in accordance with the requirements of Rule 62-701.500(8), F.A.C., the information in Section 2.j and Section 8 of the Operations Plan, and other applicable Department rules.

b. Leachate, which has accumulated in low areas within the disposal area shall be removed from the disposal area at least **daily**.

c. Leachate Disposal.

1) Leachate shall be pumped offsite for disposal at an appropriately permitted wastewater treatment facility (WWTP). No later than **thirty (30) days** prior to the expiration of any contracts or agreements for the disposal of leachate at wastewater treatment facilities, the permittee shall provide a copy of the contract renewal or the issuance of a new contract for leachate disposal.

2) In the event that the primary leachate disposal facility becomes unable or unwilling to accept leachate for disposal, **within three (3) days** of the cessation of leachate acceptance by the WWTP, the landfill owner or operator shall notify the Department and shall explain the contingency measures which will be implemented. The contingency measures shall be implemented **within seven (7) days** of the cessation of leachate acceptance at the WWTP, or in accordance with an alternate schedule approved by the Department.

d. Leachate Quantities.

1) Leachate quantities shall be measured and recorded in accordance with the procedures specified in Section 8 of the Operations Plan.

2) A rain gauge located on-site shall be used to compare precipitation with leachate generation. Rainfall data, in excess of one-tenth of an inch, shall be recorded by landfill personnel on a daily basis [ref. Op. Plan, Sec. 8].

3) Leachate generation reports shall be compiled monthly and submitted to the Department quarterly or more frequently if requested, by **January 15th, April 15th, July 15th** and **October 15th** each year. Leachate generation reports shall include precipitation amounts greater than one tenth of an inch, the number of open, intermediate and closed acres, and the quantities of leachate collected, stored, and hauled off-site to a wastewater treatment facility.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.8., cont'd)

e. Leachate Collection System Inspections/Maintenance.

1) Each manhole and leachate holding tank and related sensors and controller mechanisms shall be inspected on a monthly basis [ref. Op. Plan, Sec. 8]. Pumps showing reduced performance shall be removed for maintenance and repair, and a replacement pump installed if required for continued compliance.

2) **No later than February 1, 2013**, the entire leachate collection and removal system shall be water pressure cleaned and/or video inspected to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office **no later than May 1, 2013** to demonstrate adequate performance.

f. Leachate Storage Tanks.

1) In the event of failure of the tank overflow protection system (i.e. signal alarms and pump shut-off failure), the back-up contingency plan procedures specified in Section 8 of the Operations Plan shall be implemented.

9. **Special Wastes Handling Requirements.**

a. The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan; Rules 62-701.300(8) and 62-701.520, F.A.C.; and any other applicable Department rules, to protect the public safety, health and welfare. The special wastes shall be stored and managed such that discharge of contaminants to the environment is prevented. The special wastes shall be handled on a first-in, first-out basis. The special wastes shall be stored in a location which does not interfere with the sequence of filling.

b. Scrap metal. Scrap metal separated from the waste stream for recycling shall be stored within the designated metals storage area shown on Figure 1 of the Operations Plan and managed as described in the Operations Plan [ref. Op. Plan, Sec. 2.c.]. Scrap metals which may include residual contaminants such as gasoline, oil, paint, antifreeze, PCBs, etc., shall be stored and managed such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the soil or into surface or groundwaters.

c. White Goods. White goods shall be rejected and reloaded or kept undamaged and placed upright adjacent to the designated metals storage area shown on Figure 1 of the Operations Plan. White goods, which may contain chlorofluorocarbons (CFCs, such as Freon), shall be stored and managed in a manner such that the CFCs are not discharged to the atmosphere. White goods which have had the refrigerant appropriately removed shall be clearly marked and may be stored in the scrap metal storage area.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.9., cont'd)

d. Waste Tires. Tires inadvertently accepted at the facility and subsequently removed from waste stream shall be managed at the on-site waste tire processing facility in accordance with Chapters 62-701 and 62-711, F.A.C., and Waste Tire Collection Center Permit No. 126935-002-WT/02 (including modifications, if any), or its successors.

e. Other Special Wastes. Small items of special wastes (e.g. used oil, lead acid batteries, mercury-containing devices, etc) removed from the waste stream shall be sent to the HHWCC and managed in the designated areas for these wastes in accordance with the HHWCC Operating Plan and Contingency Plan [ref. SC #C.1.a.(3)].

f. Contaminated soil, excavated waste. Neither soils that are reasonably believed to be contaminated nor wastes excavated from the redevelopment of former disposal sites/areas, shall be disposed at this site. In order to ensure that these materials are not inadvertently received at the site, for all loads with large quantities of soil, **prior to the acceptance of the load**, the permittee shall request the following information for each load: name, address and phone number of generator (i.e., jobsite where material is generated), a certification from the generator that the material is not known to be contaminated and/or did not originate from a former waste disposal area.

g. Shredded/Processed Waste. Wastes that are not clearly identifiable by visual observation as Class III waste are prohibited from being accepted at this facility. Waste that has originated from excavation or redevelopment of old landfills or unpermitted dumps is considered Class I waste and is not authorized to be managed at this facility.

10. **Waste Handling Requirements.**

a. A sufficient number of spotters shall be utilized at the facility for removing unacceptable wastes. In the event that unacceptable wastes are not adequately removed due to inadequate personnel, additional trained spotters shall be required.

b. A trained spotter shall be positioned at the working face to inspect each load as it is being received, unloaded and as it is spread and compacted [ref. Op. Plan, Sec. 2.c].

c. Unauthorized wastes shall be removed from the waste and stored in a 40 CY roll-off containers located immediately adjacent to (within 200 feet) the active face. The unacceptable waste container shall be removed for disposal within at the end of each working day or when full, whichever occurs first. [ref. Op. Plan, Secs. 2.c].

d. Containers which store unauthorized wastes shall be covered/tarped at the end of each business day, when full, and in the event of inclement weather.

e. Unauthorized wastes shall be removed from the incoming loads immediately, and no other loads shall be dumped in the immediate vicinity until unauthorized materials have been removed and stored in the container provided for unacceptable wastes.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

11. **Waste Covering Requirements.** All solid waste disposed of in the Class III landfill shall be covered as required by Rule 62-701.500(7), F.A.C.

a. **Initial Cover.** Initial cover shall be applied and maintained at the Class III landfill in accordance with Rule 62-701.500(7)(e), F.A.C., so as to protect the public health and welfare.

1) All solid waste disposed of in the Class III disposal area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department (in writing), at the end of each working week [ref. Op. Plan, Sec. 7].

b. **Intermediate cover** shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion [ref. Op. Plan, Sec. 7].

c. Top gradients of intermediate cover shall be designed to prevent ponding or low spots and minimize erosion. **Daily**, the owner or operator shall operate the facility, maintain grades, or utilize berms and swales, to prevent ponded water within the disposal areas.

12. **Working Face.**

a. The permittee shall maintain a working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously that can be adequately spotted by the number of trained spotters at the facility. [ref. Op. Plan, Sec. 7].

b. Interceptor berms shall be maintained around the working area to prevent leachate runoff from the working face from entering the stormwater management system and to minimize the formation of leachate [ref. Op. Plan, Sec. 7].

13. **Method and Sequence of Filling.**

a. The method and sequence of filling shall be in accordance with the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], and as described in the Operations Plan [ref. Op. Plan, Secs. 2.f, 2.g. & 7.], or as otherwise approved in writing by the Department.

b. Waste shall be spread in 2 feet thick layers and compacted before applying the next layer of waste and in accordance with the method, procedures, and sequence described in the facility Operations Plan [ref. Op. Plan, Sec. 2.g.]. Cells shall be filled in approximate 10 foot lifts. Slopes shall be maintained in accordance with the Permit Drawings. The working face shall be no greater (steeper) than **3H:1V** [ref. Op. Plan, Secs. 2.g. & 7.].

c. The permittee shall maintain and clearly stake/mark the location of the edge of the liner and maintain the locations as the landfill increases in elevation to prevent waste disposal and leachate runoff outside the geomembrane liner. The permittee shall maintain a minimum disposal setback of 5 feet from the inside top edge of the bottom liner system.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.13., cont'd)

d. Initial Waste Placement.

1) The first lift of waste shall be a minimum of four(4) feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system and shall be conducted in accordance with the procedures in Section 7 of the Operations Plan. At least 7 days prior to the initiation of waste placement in each cell, the Department shall be notified in order to allow Department observation of the select waste type and placement.

e. The owner or operator shall conduct a topographic survey of, and shall estimate the remaining disposal capacity and site life of each disposal area as required by Rule 62-701.500(13)(c), F.A.C. **Annually, no later than April 15<sup>th</sup> each year**, a copy of this survey, supporting capacity calculations, signed and sealed by a registered professional engineer and/or licensed professional land surveyor as appropriate shall be submitted to the Department. The survey shall demonstrate that the above-grade sideslopes are no greater than the design slopes, that the top elevation does not exceed design elevation, and that all other design features and related improvements conform to the Department-approved permit drawings. The capacity estimate shall include updated design lifetime calculations.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

1. **Report Submittals.**

a. Unless specified otherwise in this permit, all submittals, notifications, or requests for permit modification shall be provided to the Southwest District Solid Waste Section, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

2. **Operation Plan and Operating Record.**

a. Each landfill owner or operator shall have an operational plan which meets the requirements of Rule 62-701.500(2), F.A.C. A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections [ref. Op.Plan, Sec. L.3]. Operating records as required by Rule 62-701.500(3), F.A.C., are part of the operations plan, and shall also be maintained at the site.

b. Proposed changes to the current Department-approved **Operations Plan** shall be submitted in writing to the Department for review and may require a permit modification in accordance with Specific Condition #A.3. The **Operations Plan** shall be updated as operations change and for renewal of the permit. Revised pages shall be provided as replacement pages with revisions noted (deletions may be struckthrough (~~struckthrough~~) and additions may be shaded (~~shaded~~) or a similar method may be used) and each page numbered with the document title and date of revision.

3. **Waste Records.**

a. Waste records shall be maintained as required by Rule 62-701.500(4), F.A.C. The owner or operator of the facility shall weigh each load of waste as it is received (with scales at the facility) and record, in tons per day, the amount of waste debris and material received. This information shall be compiled **monthly** and submitted to the Department (Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, M.S. 4565, Tallahassee, Florida 32399-2400) **quarterly, by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup> of each year** [ref. Op.Plan, Sec. L.4]. Waste shall not be accepted for disposal at the landfill unless weight scales are available at the facility and are in proper working condition.

b. The following reports, documents and other information shall be kept at the facility for reference, and copies shall be provided to the Department upon request:

- 1) Waste quantity reports [ref. SC #D.3.a].
- 2) A log of the facility operator's inspections, and any subsequent corrective actions;
- 3) Load checking records;
- 4) Operator and spotter training certificates and other documentation; and
- 5) Log of odor complaints and corrective action.
- 6) Records as described in Rule 62-701.500(13). These records shall include all certifications for construction completion;
- 7) Documentation of incidents reported pursuant to Specific Condition C.6.;
- 8) Water quality and gas monitoring reports.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

4. **Financial Assurance.** The permittee shall provide adequate financial assurance for this facility and related appurtenances in accordance with Rule 62-701.630, F.A.C.

a. All costs for closure shall be adjusted and submitted for approval **annually, by September 1st each year** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

b. Proof that the financial mechanism has been adequately funded shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DRAFT

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

**1. Water Quality Monitoring Quality Assurance.**

a. All field work done in connection with the facility's Water Quality Monitoring Plan regarding the collection of ground water, surface water and leachate samples shall be conducted in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001/01 dated February 1, 2004 [or as replaced by successor SOPs], as referenced in Rule 62-160.210(1), F.A.C. All laboratory analyses done in connection with the facility's Water Quality Monitoring Plan shall be conducted by firms that hold certificates from the Department of Health Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C., as referenced in Rule 62-160.300(1), 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 the permit and shall be implemented by all persons performing sample collection or analysis related to this permit. 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.

b. The field testing, sample collection and preservation and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

**2. Zone of Discharge.**

a. The zone of discharge for the West Pasco Class III landfill shall extend horizontally 100 feet from the limits of the landfill liner (all active, inactive and closed Class III waste disposal areas), or to the property boundary, whichever is less, and shall extend vertically to the first semi-confining unit within the upper Floridan aquifer.

b. The permittee shall ensure that the water quality standards for Class G-II ground water will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the ground water minimum criteria referenced in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the disposal areas.

**3. Ground Water Monitor Well Locations.** The ground water monitoring system locations for the West Pasco Class III landfill footprint (Cells 1 through 4) are designed and shall be constructed in accordance with the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM, dated March 2008, revised August 2008 [ref.SC#A.2.a.(2)]. The ground water monitor wells and piezometers are located on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (**attached**), as follow:



**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

(Specific Condition #E.3., continued)

Well #	Scheduling ID #	Notes	Aquifer	Designation	Location
2MW-7	2343	A, X	Surficial	Background	See Figure 3-1
4MW-7	2340	A, X	Floridan	Background	↓
4MW-21	23065	B, Y	Floridan	Detection	↓
4MW-22	23066	B, Y	Floridan	Detection	↓
4MW-23	23067	C, Y	Floridan	Detection	↓
2MW-3A	19671	A, X	Surficial	Piezometer	See Figure 3-1
4MW-3A	19670	A, X	Floridan	Piezometer	↓
2MW-8	2344	A, X	Surficial	Piezometer	↓
4MW-8	2341	A, X	Floridan	Piezometer	↓
2MW-9	2345	A, X	Surficial	Piezometer	↓
4MW-9	2342	A, X	Floridan	Piezometer	↓
2MW-10	2346	A, X	Surficial	Piezometer	↓

Proposed monitor well 4MW-21 shall be constructed in accordance with the details provided in Figure 3-6 ("Proposed Well Construction at Floridan Well 4MW-21"), received March 21, 2008, and proposed monitor wells 4MW-22 and 4MW-23 shall be constructed in accordance with the details provided in Figure 3-7 ("Proposed Well Construction at Floridan Wells 4MW-22 and 4MW-23"), received March 21, 2008, as referenced in Section 3.1.3 of the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM [ref. SC#A.2.a.(2)].

A = existing monitor well/piezometer

B = proposed monitor wells to be installed **within 30 days of issuance of permit #26254-001-SO**

C = proposed monitor well to be installed **at least 30 days prior to initiation of debris disposal in Cell 3 or Cell 4**

X = construction details and results of initial sampling event previously provided

Y = documentation of well construction shall be submitted **within 30 days of installation** in accordance with Specific Condition #E.5.b., and #E.5.d.; an initial sampling event shall be conducted **within 7 days of well installation and development** for the parameters listed in Specific Condition #E.4.b.

All monitor wells and piezometers are to be clearly labeled and easily visible at all times. The permittee should keep all monitor wells and piezometers locked to minimize unauthorized access.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

**4. Ground Water Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be reported at or below the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with the Class G-II ground water standards referenced in Chapter 62-520.420, F.A.C., and with the ground water minimum criteria referenced in Chapter 62-520.400, F.A.C. Compliance with ground water standards and minimum criteria shall be based on the analysis of unfiltered samples.

**a.** Ground water levels shall be measured at all active monitor wells and piezometers listed in Specific Condition #E.3., during all sampling events described in Specific Conditions #E.4.b., #E.4.c., and #E.8.b., to a precision of 0.01 foot. Ground water surface elevation contour maps of the surficial aquifer and of the Floridan aquifer shall be prepared for each set of water level measurements (using a consistent, nationally recognized datum) calculated for each monitor well and piezometer. The contour maps shall be submitted to the Department in the reports for the routine ground water sampling events (SC#E.10.) and the monitoring plan evaluations (SC#E.11.).

**b.** An "initial sampling event" shall be conducted **within 7 days of installation and development** of all new and replacement monitor wells for analysis of the following parameters:

**Field Parameters**

Static water levels  
before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
(by observation)

**Laboratory Parameters**

Total ammonia - N  
Chlorides  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix II

Iron  
Mercury  
Sodium

**c.** Background and detection wells 2MW-7, 4MW-7, 4MW-21 and 4MW-22 shall be sampled **semi-annually** (during the periods from January 1 to June 30, and from July 1 to December 31) for analysis of the following parameters:

**Field Parameters**

Static water levels  
before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
(by observation)

**Laboratory Parameters**

Total ammonia - N  
Chlorides  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix I

Iron  
Mercury  
Sodium

Following the completion of the "initial sampling event" at proposed well 4MW-23 in accordance with the schedule presented in Specific Condition #E.3., this new detection well shall be included in subsequent routine ground water sampling events.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

5. **Ground Water Monitor Well Construction.** The following information shall be submitted **within 90 days of installation** of all new or replacement wells or piezometers, or as stated below:

a. Prior to construction of all new or replacement wells (excluding proposed wells 4MW-21 through 4MW-23) or piezometers the permittee shall request and receive Department approval of a minor permit modification in accordance with Specific Condition #A.3.a.

b. Construction details (record drawings) for all new or replacement wells and piezometers shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (**attached**) [or as replaced by Department Form #62-701.900(30)].

c. **Within one week of well completion and development**, each new or replacement monitor well shall be sampled for the parameters listed in Specific Condition #E.4.b., to comply with the requirements of Rules 62-701.510(8)(a) and (8)(d), F.A.C.

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitor wells and piezometers (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, using a consistent, nationally recognized datum. The surveyed drawing shall include the monitor well and piezometer identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

6. **Well Abandonment.** All monitor wells and piezometers not a part of the approved Water Quality Monitoring Plan and not listed in Specific Condition #E.3., are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well/piezometer locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well/piezometer abandonment **within 30 days of abandonment**. A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

7. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's ground water quality standards or minimum criteria in any detection well, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring as described in Rule 62-701.510(7)(a), F.A.C. If monitoring parameters are detected at concentrations significantly above background water quality, and exceed the Department's ground water quality standards or minimum criteria in any compliance well, the Permittee shall submit a preventive measures plan and initiate corrective action as described in Rule 62-701.510(7)(b), F.A.C.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

8. **Surface Water Sampling.** All surface water bodies that may be affected by a contaminant release at the facility shall be monitored, except bodies of water contained completely within the property boundaries which do not discharge from the site to surface waters (Rule 62-701.510(4), F.A.C.). It is not anticipated that the existing stormwater management system will discharge from the property. However, in the event that a surface water discharge occurs from the stormwater management system, representative samples of each discharge event shall be collected for analysis of the parameters listed in Specific Condition #E.8.b. In the event that any modifications to the stormwater management system associated with future uses of the landfill result in periodic surface water discharges from the property, the Department may require the implementation of routine surface water monitoring.

a. The locations, parameters, and frequencies specified herein represent the minimum requirements for surface water monitoring. Additional samples, sampling locations, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the criteria for each parameter established in Chapter 62-302, F.A.C., to demonstrate compliance with Class III (predominantly fresh water) surface water standards. Compliance with surface water criteria will be based on analysis of unfiltered samples.

b. Surface water sampling shall be conducted at the point of discharge from the property **per discharge event** in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(4) and 62-701.510(6)(e), F.A.C. In the event that the discharge has ceased prior to being able to collect a sample, the closest location within the stormwater management system to the discharge location shall be sampled to represent that particular discharge event. The Solid Waste Section of the Department shall be notified of the occurrence of each discharge event **within 24 hours of discovery**. Surface water samples shall be analyzed for the following parameters:

Field parameters

Specific conductivity  
pH  
Dissolved oxygen  
(COD)  
Turbidity  
Temperature  
(BOD<sub>5</sub>)  
Colors and sheens  
(TDS)  
(by observation)  
(TSS)  
Nitrate

Those parameters listed in  
40 CFR Part 258, Appendix I

Laboratory parameters

Unionized ammonia  
Total hardness  
Total phosphates  
Chlorophyll A  
Copper  
Iron  
Mercury  
Zinc  
Total organic carbon (TOC)  
Total nitrogen  
Chemical oxygen demand  
Fecal coliform  
Biochemical oxygen demand  
Total dissolved solids  
Total suspended solids

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

9. **Leachate Sampling.** Representative leachate samples (unfiltered) shall be collected from each of the locations described in Specific Condition #E.9.a., for the sampling events described in Specific Conditions #E.9.b., and #E.9.c. Leachate sampling shall be conducted in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C.

a. Representative leachate samples shall be collected from each of the leachate holding tanks at the locations shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (**attached**), as follow:

<u>Leachate Sample ID #</u>	<u>Landfill Cell</u>	<u>WACS Testsite ID #</u>
Tank #1	Cells #1 and #2	2507
Tank #2	Cells #3 and #4	2508

Individual leachate samples shall be collected from each of the leachate holding tanks for analysis of the parameters presented in Specific Condition #E.9.b., and #E.9.c. Leachate samples collected from Tank #1 and Tank #2 shall not be composited.

b. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

<u>Field Parameters</u>	<u>Laboratory Parameters</u>	
Specific conductivity	Total ammonia - N	Iron
pH	Bicarbonate	Mercury
Dissolved oxygen	Chlorides	Sodium
Colors & sheens (by observation)	Nitrate	
	Total dissolved solids (TDS)	
	<u>Those parameters listed in</u>	
	<u>40 CFR Part 258, Appendix II</u>	

c. If the leachate analyses indicate that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall provide notification to the Department in accordance with Specific Condition #C.6.b. In addition, the permittee shall initiate **monthly** leachate sampling at each of the locations listed in Specific Condition #E.9.a., for analysis of the parameters listed in Specific Condition #E.9.b. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

**10. Water Quality and Leachate Reporting Requirements.** The results of each ground water, surface water, and leachate sampling event conducted at the West Pasco Class III Landfill to comply with the Specific Conditions of this permit shall be included in reports that provide the following:

Electronic Data Deliverable (EDD) Portions of Report:

- An EDD on compact disk or flash drive media readable by Microsoft Windows in a format consistent with the requirements for evaluating the data and importing it into the Department databases that includes both field sampling data and laboratory data. The requirements for preparation of the EDD can be obtained on the Department's website at: <http://www.dep.state.fl.us/labs/dqa/adaptedms.htm>. The EDD shall provide the information required by Rules 62-701.510(9) (a)1 through 62-701.510(9) (a)7, F.A.C.

Hard Copy Portions of Report:

- Department Form 62-701.900(31) ["Water Quality Monitoring Certification"], certifying that the permittee has reviewed and approved the laboratory results;
- Certified laboratory report of results;
- Chain-of-custody documentation;
- Department SOP Form FD 9000-24 ["Ground Water Sampling Log"] for ground water sampling events; and,
- The information required by Rules 62-701.510(9) (a)8 through 62-701.510(9) (a)10, F.A.C.

The permittee shall submit to the Department results of analyses conducted for each sampling event conducted at the facility by the following due dates:

- a. Specific Condition #E.4.b. - results of ground water "initial sampling events" shall be submitted **within 60 days from completion of laboratory analyses;**
- b. Specific Condition #E.4.c. - results of ground water semi-annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> and July 15<sup>th</sup> of each year** for the periods July 1 to December 31, and January 1 to June 30, respectively;
- c. Specific Condition #E.7. - results of ground water verification events shall be submitted **within 60 days from completion of laboratory analyses;**
- d. Specific Condition #E.8.b. - results of surface water discharge sampling events shall be submitted **within 60 days from completion of laboratory analyses;**
- e. Specific Condition #E.9.b. - results of leachate annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> of each year** for the periods January 1 to December 31;
- f. Specific Condition #E.9.c. - results of monthly leachate sampling events shall be submitted **within 60 days from completion of laboratory analyses.**

The results shall be submitted to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

11. **Monitoring Plan Evaluation.** By November 1, 2010 and May 1, 2013, the permittee shall submit an evaluation of the water quality and leachate monitoring data. The periods of time to be covered by the evaluations are summarized below:

<u>Water Quality Monitoring Data Evaluation Due Date</u>	<u>Starting Sampling Event</u>	<u>Ending Sampling Event</u>
November 1, 2010	Second half 2006	First half 2010
May 1, 2013	Second half 2010	Second half 2012

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing facility design and operation as related to the prevention of ground water and surface water contamination. Any contamination that may exist shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C. The evaluations shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.

DRAFT

**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

**1. Landfill Gas - NPs and Title V Air Requirements.**

a. This solid waste permit will meet the statutory requirement to obtain an air construction permit before modifying or constructing a source of air pollution, except for those landfills that are subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. Facilities that are subject to the PSD requirements shall obtain an air construction permit from the Bureau of Air Regulation prior to beginning construction or modification pursuant to Rule 62-210.400, F.A.C.

b. The permittee shall comply with any applicable Title V air operation permit application requirements of Chapter 62-213, F.A.C., and 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Title V Permit applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill.

c. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 3900 Commonwealth Blvd., Tallahassee, FL 32399-3000, any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

**2. Gas Monitoring and Control.**

a. Landfills that receive degradable wastes shall have a gas management and control system designed to prevent explosions and fires, and to minimize off-site odors, lateral migration of gases and damage to vegetation. Landfill gas shall be monitored and controlled as required by Rules 62-701.500(9) and 62-701.530, F.A.C.

b. Landfill gas shall be monitored to demonstrate compliance with the criteria established in Rule 62-701.530(1)(a), F.A.C., (less than 25% of the lower explosive limit (LEL) for combustible gases in structures and less than 100% of the LEL for combustible gases at or beyond the property boundary).

c. The results of quarterly monitoring required by Rule 62-701.530(2)(c), F.A.C., conducted at the locations listed in Specific Condition #F.3., shall be submitted to the Department by the following dates:

<u>Measured During</u>	<u>Report Submitted By</u>
Quarter 1 (Jan - Mar)	April 15 <sup>th</sup> of each year
Quarter 2 (Apr - June)	July 15 <sup>th</sup> of each year
Quarter 3 (July - Sep)	October 15 <sup>th</sup> of each year
Quarter 4 (Oct - Dec)	January 15 <sup>th</sup> of each year



**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

3. **Gas Monitoring Locations.** Surficial aquifer monitor wells 2MW-7, 2MW-8 and 2MW-10 shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008," prepared by CDM, received March 21, 2008 (**attached**), and the adjacent scale house and operator's office structures shall be sampled at least quarterly for concentrations of combustible gases determined as a percent of the LEL calibrated to methane, as described in Rule 62-701.530(2), F.A.C. Landfill gas monitoring shall be conducted in accordance with Section 9 of the document entitled "Landfill Operations Plan For West Pasco Class III Landfill," prepared by CDM, dated October 2007, revised June 2008 [ref.SC#A.2.a(1)], at the following locations:

<u>Monitoring Locations</u>	<u>Location Description</u>
Well 2MW-7	South of Class III landfill
Well 2MW-8	West of Cell 1
Well 2MW-10	Near northwest corner of Class III landfill
Scale house	Near southwest corner of Class III landfill
Operator's office	Near southwest corner of Class III landfill

The monitor wells used as gas monitoring locations are to be clearly labeled and easily visible at all times.

4. **Gas Remediation.** If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL calibrated to methane in structures or 100% of the LEL calibrated to methane at the property boundary, the permittee shall immediately take all necessary steps to ensure protection of human health and notify the Department. **Within 7 days** of detection, a gas remediation plan detailing the nature and extent of the problem and the proposed remedy shall be submitted to the Department for approval. The remedy shall be completed **within 60 days** of detection unless otherwise approved by the Department.

**SPECIFIC CONDITIONS: PART G - Closure and Long-Term Care Requirements**

1. **Closure Permit Requirements.** The landfill owner or operator shall submit a closure permit application to the Department, on DEP Form 62-701.900(1), for those portions of the landfill, which have reached design dimensions and grades. The permit application shall be submitted **at least 90 days prior** to the date when wastes will no longer be accepted for active portions of the landfill, as required by Rule 62-701.600(3), F.A.C., or in accordance with the conditions of an existing Department closure permit, whichever is sooner.
2. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed (shall receive final cover) within 180 days after reaching design dimensions, in accordance with Rule 62-701.500(7)(g), F.A.C. and all applicable requirements of Department rules.
3. **Long-Term Care Requirements.**
  - a. The owner or operator shall perform long-term care for the closed portions of the site in accordance with Rule 62-701.620, F.A.C., and the information submitted in the Attachment 2 of the Engineering Report.
  - b. Long-term care includes, but is not limited to, water quality, leachate and gas monitoring, maintenance of the final cover system, maintenance of the leachate collection and removal system, erosion control, and the prevention of ponding within disposal areas.
  - c. Prior to implementation, the owner or operator shall submit a plan for any proposed uses of the closed portions of the landfill to the Department for approval. This plan shall include a description of the proposed use, and evaluation of the impact on the existing landfill systems (e.g. final cover, leachate collection, bottom liner), engineering designs, calculations and plans as appropriate, etc. The proposed activity shall not be initiated without prior Department approval.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

---

Pamala Vazquez  
Program Administrator  
Southwest District

ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
A.4.	No later than May 1, 2013	Submit permit renewal application
A.9.b.	Within 24 hours of discovery  Within 7 days of verbal notification	Notification of sinkholes or subsurface instability  Written notification & corrective action plan
B.2.a.	Within 60 days of completion	Submit certification of construction completion, record drawings, etc.
C.5.b.	Within 60 days of initial detection	Submit odor abatement plan
C.6.b.	Within 24 hours of discovery  Within 7 days of verbal notification	Notification of: hazardous waste receipt, failure of landfill systems or equipment, damage to leachate impoundments  Written notification & corrective action plan
C.6.c.	Within 60 days of written notification	Complete corrective actions for gradient or groundwater monitoring system
C.6.d.	Within 30 days of written notification	Implement corrective actions for leachate or stormwater management system
C.6.f.	Within 30 days of written notification from the Department	Submit corrective action plan for chronic erosion of intermediate cover.
C.8.c.(1)	No later than 30 days prior to expiration of leachate disposal agreements/contracts	Submit copies of contract/agreement renewal or new contracts/agreements
C.8.d.(3)	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> and October 15 <sup>th</sup> each year	Submit leachate generation reports
D.3.a.		Submit waste records to Tallahassee
C.8.e.(2)	No later than May 1, 2013	Submit report of jet cleaning and video inspection of LCS piping.
C.13.e.	Annually, by April 15 <sup>th</sup> each year	Submit Topographic survey & remaining capacity calculations
D.4.a.	Annually, by September 1 <sup>st</sup> each year	Submit revised cost estimates
D.4.b.	Annually	Submit proof of funding

ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
E.4.b.	Within 7 days of new well installation and development	Conduct initial sampling event
E.4.c.	Semi-annually	Sample background and detection wells
E.5.a.	Prior to installation of new wells	Request and received permit modification
E.5.b.	Within 90 days of installation of new wells	Provide construction details for wells
E.5.c.	Within 1 week of well development	Conduct initial sampling
E.5.d.	Within 90 days of installation of new wells	Provide survey drawing
E.6.	Within 30 days of well abandonment	Submit documentation of abandonment
E.7	Within 14 days of discovery	Notification of: monitoring parameters significantly above background water quality or exceeding ground water standards or minimum criteria
E.8.b.	Per discharge event	Sample surface water discharging from property
E.9.b.	Annually	Conduct leachate sampling
E.10.	Semi-annually, by January 15 <sup>th</sup> and July 15 <sup>th</sup> of each year  Annually, by January 15 <sup>th</sup> of each year  Within 60 days of completion of laboratory analyses	Submit ground water quality monitoring analyses (SC#E.4.c.)  Submit leachate quality monitoring analyses (SC#E.9.b.)  Submit initial ground water sampling results (SC#E.4.b.), ground water verification sampling results (SC#E.7.), surface water discharge event sampling results (SC#E.8.b.), and monthly leachate sampling events (SC#E.9.c.)
E.11.	November 1, 2010 and May 1, 2013	Submit monitoring plan evaluation reports
F.2.c.	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> , and October 15 <sup>th</sup> of each year	Submit results of routine landfill gas monitoring events
G.1.	No later than 90 days prior to the date when wastes will no longer be received	Submit Closure Permit application

Memorandum

Florida Department of Environmental Protection

PERMIT COVER MEMO

TO:  x  Pamala Vazquez, Program Administrator *PLV 6.4.11*

FROM/THROUGH: *WMS - 5/4/11*  
William Kutash  
*5/3/11*  
Susan Pelz, P.E.  
*5/3/11*  
Nancy Gaskin *5/3/11*

ENVIRONMENTAL ADMINISTRATOR  
PROGRAM MANAGER  
SOLID WASTE SECTION

DATE:  May 3, 2011

FILE NAME:  West Pasco CL III Landfill

MODIFICATION #: 26254-002-SO/IM  
PERMIT #: 26254-001-SO/T3  
COUNTY : Pasco

PROGRAM :  Solid Waste

TYPE OF PERMIT ACTION:  X  INTENT TO ISSUE

PUBLIC NOTICE PERIOD CLOSED?  no  PETITION FILED?  no

PERMIT SUMMARY: This is a permit for the construction of a a new scale house, scales, and citizen drop off area and an existing Class III Disposal facility.

PROFESSIONAL RECOMMENDATION:  X  APPROVE   DENY

EVALUATION SUMMARY: The applicant has provided sufficient information to demonstrate compliance with Department Rules.

To 05/03/11: TIH=320 TTP=173		TTP
Application received	06/16/10	
RAI #1 sent	07/15/10	29
Response to RAI rec'd	10/12/10	
RAI #2 sent	11/03/10	28
Response to RAI rec'd	12/21/11	
RAI #3 sent	01/20/11	30
Response to RAI rec'd	02/07/11	
Application complete	02/07/11	
Intent to issue for routing	05/03/11	86
Proof of pub rec'd		
Appl. Active (day=_87_)		
Final permit for routing		

DAY 90/30 FOR THIS ACTION IS:  ASAP: Day 90 = 05/08/11

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** 'bo.bruner@ch2mhill.com'  
**Sent:** Wednesday, May 04, 2011 6:59 PM  
**Subject:** Delivery Delayed: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional

**Delivery is delayed to these recipients or distribution lists:**

'bo.bruner@ch2mhill.com'

Subject: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional

This message has not yet been delivered. Microsoft Exchange will continue to try delivering the message on your behalf.

Delivery of this message will be attempted until 5/9/2011 2:53:36 PM (GMT-05:00) Eastern Time (US & Canada). Microsoft Exchange will notify you if the message can't be delivered by that time.

---

Sent by Microsoft Exchange Server 2007

Brantley, Anna

---

**From:** Brantley, Anna  
**Sent:** Wednesday, May 04, 2011 2:54 PM  
**To:** 'bo.bruner@ch2mhill.com'; Moore, Ronni; Wick, Fred; Hornbrook, Frank; Tedder, Richard; Pelz, Susan; Commissioner Ann Hildebrand; Commissioner Henry Wilson; Commissioner Jack Mariano; Commissioner Pat Mulieri; Commissioner Ted Schrader; County Administrator John Gallagher; Pasco County Commissioners; Representative John Legg; Representative Peter Nehr; Representative Richard Corcoran; Representative Robert Schenck; Representative Shawn Harrison; Representative Will Weatherford; Representative Rich Glorioso; Senator Jim Norman; Senator Mike Fasano; Senator Ronda Storms  
**Cc:** Gaskin, Nancy  
**Subject:** West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional  
**Attachments:** West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011

Attached please find NOTICE OF INTENT TO ISSUE permit documents for the subject Solid Waste Facility. Please remember that this Intent to Issue requires publication. These are the only copies you will receive. Hard copy was mailed to addressee only by certified mail.

NOTE: If you have any questions concerning the contents of the permit documents, please contact the DEP permit processor [nancy.gaskin@dep.state.fl.us](mailto:nancy.gaskin@dep.state.fl.us).

Acrobat Reader 6.0 or greater is required to read these documents. It is available for downloading at: <http://www.adobe.com/products/acrobat/readstep.html>

Anna

Anna Brantley  
Administrative Assistant II  
FL DEP / SWD / Waste Management  
13051 North Telecom Parkway  
Temple Terrace FL 33637-0629  
Tel: 813/632-7600, Ext. 377  
Fax: 813/632-7664  
[anna.brantley@dep.state.fl.us](mailto:anna.brantley@dep.state.fl.us)

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Hershel T. Vinyard Jr is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** Representative John Legg; Representative Peter Nehr; Representative Richard Corcoran; Representative Robert Schenck; Representative Shawn Harrison; Representative Will Weatherford; Representnative Rich Glorioso  
**Sent:** Wednesday, May 04, 2011 2:54 PM  
**Subject:** Relayed: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

Representative John Legg

Representative Peter Nehr

Representative Richard Corcoran

Representative Robert Schenck

Representative Shawn Harrison

Representative Will Weatherford

Representative Rich Glorioso

Subject: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional

---

Sent by Microsoft Exchange Server 2007



Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** Commissioner Ann Hildebrand; Commissioner Henry Wilson; Commissioner Jack Mariano; Commissioner Pat Mulieri; Commissioner Ted Schrader; County Administrator John Gallagher; Pasco County Commissioners  
**Sent:** Wednesday, May 04, 2011 2:54 PM  
**Subject:** Relayed: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

Commissioner Ann Hildebrand

Commissioner Henry Wilson

Commissioner Jack Mariano

Commissioner Pat Mulieri

Commissioner Ted Schrader

County Administrator John Gallagher

Pasco County Commissioners

Subject: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional

---

Sent by Microsoft Exchange Server 2007

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** Wick, Fred; Tedder, Richard; Pelz, Susan; Hornbrook, Frank  
**Sent:** Wednesday, May 04, 2011 2:54 PM  
**Subject:** Delivered: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED)  
- Adobe Acrobat Professional

**Your message has been delivered to the following recipients:**

Wick, Fred

Tedder, Richard

Pelz, Susan

Hornbrook, Frank

**Subject:** West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional

---

Sent by Microsoft Exchange Server 2007

Brantley, Anna

---

**From:** Microsoft Exchange  
**To:** Gaskin, Nancy; Moore, Ronni  
**Sent:** Wednesday, May 04, 2011 2:54 PM  
**Subject:** Delivered: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED)  
- Adobe Acrobat Professional

**Your message has been delivered to the following recipients:**

Gaskin, Nancy

Moore, Ronni

Subject: West Pasco CL III LF Intent #26254-002-SO-IM 5-4-2011.pdf (SECURED) - Adobe Acrobat Professional

---

Sent by Microsoft Exchange Server 2007



3011 S.W. Williston Road  
Gainesville, Florida 32608-3964  
Tel (352) 335-7991

January 31, 2011

Nancy Gaskin  
Solid Waste Section  
FDEP South West District  
13051 N. Telecom Parkway  
Temple Terrace, FL 33637

Dept. Of Environmental Protection  
FEB 07 2011  
Southwest District

Subject: West Pasco County Class III Landfill, Pasco County  
Pending Permit Modification No.: 26254-002/IM to  
Existing Permit No.:26445-001-SO/T3  
WACS Id No.:45920

Dear Ms. Gaskin:

This letter is a response to the department's third request for information dated January 20, 2011 regarding the above mentioned subject matter. Items that have been revised are the only items that are included in this package.

General:

1. The requested information and comments below do not repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page drawing detail number, etc. where the information has been presented in the original submittal.

*Response to Comment 1. - Acknowledged.*

2. Please Submit **4 copies** of all requested information. Please specify if the revised information is intended to supplement, or replace, previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be underlined (underlined) or a similar notation method may be used. This format will expedite the review process. Please include the revision date on all revised pages.

*Response to Comment 2. - Acknowledged.*

3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same

numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, ect.

*Response to Comment 3. – Acknowledged.*

Documents to be replaced:

*Table of Contents - Page 2 Attachments*

*Section 2, Additional Information (62-701,FAC)*

*Attachment F - Citizen Drop Off Operations Plan*

*Attachment I - Citizen Drop Off Layout*

4. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate. **Please be reminded that all calculations must be signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.**

*Response to Comment 3. – Acknowledged.*

### **Solid Waste Class III Landfill Application for Intermediate Modification**

#### 3. Section 1 Permit Application

c. **Section B, Additional Information, Replacement page 2-2 (Dec 210).** This section states that it refers to the CDO and seems to indicate that engines will be accepted at the CDO while no management procedures are provided in the CDO Operations Plan. Please clarify whether these materials are accepted at the CDO and revise this section accordingly (see comment #8.b below).

*Response to Comment 3.c. – Engines will not be accepted in the CDO. Please see the revised Section 2 Additional Information (62-701, FAC) and Attachment F, CDO Operations Plan.*

4. Plans and Drawings, Rules 62-701.320(7) (f), and 62-701.710(2) (b), F.A.C. Please provide the following additional information and revisions to the plans.

**As previously requested, please provide full sized 22 by 34 inch drawings showing all revisions to replace drawings initially submitted as part of the application package. These revised drawings should include all final revisions made during the review process for each drawing.**

*Response to Comment 4. – Acknowledged.*

6. Cover Page Format, Rule 62-701.320(7) (d), F.A.C. As previously requested, please provide a revised cover page for the application that is signed and sealed by the project engineer.

*Response to Comment 6- Four (4) signed and sealed cover pages are included in this submittal.*

8. Citizens Drop Off Operations Plan

a. **As previously requested**, please clarify all references to a "transfer station" in this operations plan, and a. *As previously requested*, please clarify all references to a "transfer station" in this operations plan, and revise all appropriate sections accordingly. This includes, **for example, references to features which are not shown in the current design of this facility, including leachate collection system components and exhaust fans.**

*Response to Comment 8a. - These items have been revised and updated. Please see Attachment F, Operations Plan.*

b. **§1.1 Facility Description.** This section indicates that yard trash and engines may be accepted at the CDO. Please provide specific procedures for management of these materials (see comment #3 .c. above). Please provide a table listing the maximum quantity and storage times for each waste and recyclable materials to be accepted at the CDO. Please include this table in the Operations plan.

*Response to Comment 8b. - Engines will not be accepted in the CDO. Please see the updated and revised Attachment F, CDO Operations Plan.*

e. **§1.1.2 MSW.** As previously requested, please provide information regarding leak prevention and containment for any leachate that may be generated and leak from the compactors. Unless information is provided that demonstrates that the leachate will not violate Department water quality standards and criteria, containment procedures should not include leachate running off to stormwater as indicated in this response. Please revise this section as appropriate.

*Response to Comment 8e. - There are ten MSW containers proposed for the CDO. The containers are covered by a canopy, which minimizes the intrusion of rain water. The CDO attendant observes the containers for spills and leakage, and any noticeable spills or leakage is cleaned up with absorbent material in accordance with Paragraph 1.3.2.1 of the Operations Plan.*

f. **§1.3 Contingency Plan.** The response to this item lists Rita Peckenschneider as the primary emergency coordinator, while her name appears struckthrough twice in the

revised Operations Plan. Please specify the primary emergency coordinator, and revise this section accordingly.

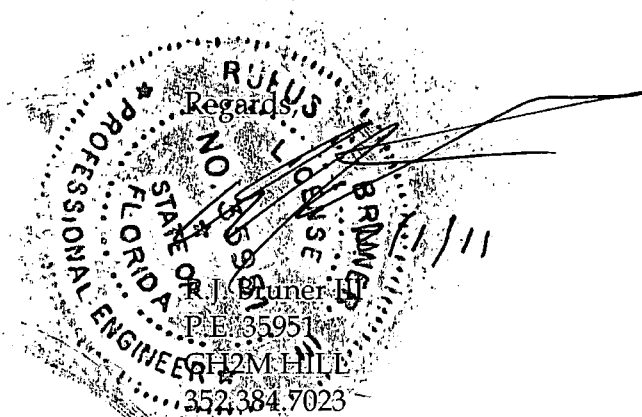
*Response to Comment 8f. – The primary emergency coordinator for West Pasco is Ron Walker, Solid Waste Superintendent (727) 856-0119.*

**h. §1.7 Facility Closure.** The drawings submitted do not appear to show a leachate collection system in the proposed CDO. As previously requested, please clarify the references to drains, and leachate and sludge volumes in this section. Alternatively, provide revised drawings as appropriate.

*Response to Comment 8h. – This section has been revised and updated. See Attachment F, Operations Plan.*

**i. §1.1.4 Waste Tires/Waste Oil (December 2010).** Please clarify whether waste oil will be accepted, §1.1 indicates that it will not be. If waste oil will be accepted please provide specific procedures for management of this material (see comment #8.b. above). If waste tires will be accepted but not stored in a roll off, please provide specific management and storage procedures for these tires. Please revise this section accordingly.

*Response to Comment 8i. – Waste tires and oil will not be accepted at the CDO. Any tires and waste oil discovered in a load will be directed by the attendant for the citizen to drive over to the waste tire and oil storage to unload these items properly.*

Regards,  
  
R. J. Bruner, PE  
PE #35951  
GH2M HILL  
352.384.7023  
3011 SW Williston Road  
Gainesville, FL 32608

Brantley, Anna

---

**From:** Brantley, Anna  
**Sent:** Thursday, January 20, 2011 2:46 PM  
**To:** 'bkennedy@pascocountyfl.net'; 'bbruner@ch2m.com'; 'jpower@pascocountyfl.net'; Hornbrook, Frank; Madden, Melissa; Morgan, Steve; Pelz, Susan  
**Cc:** Gaskin, Nancy  
**Subject:** West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) - Adobe Acrobat Professional  
**Attachments:** West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011

Attached is an electronic copy of the Request for Additional Information (RAI #3) letter and attachments for the above permit application. This is the only copy you will receive.

**NOTE:** If you have questions concerning the content of this document, please contact the DEP permit processor [nancy.gaskin@dep.state.fl.us](mailto:nancy.gaskin@dep.state.fl.us)

This is the only electronic copy you will receive. Acrobat Reader 6.0 or greater is required to read this document, and is available for downloading at: <http://www.adobe.com/products/acrobat/readstep.html>

Anna

Anna Brantley  
Administrative Assistant II  
FL DEP / SWD / Waste Management  
13051 North Telecom Parkway  
Temple Terrace FL 33637-0629  
Tel: 813/632-7600, Ext. 377  
Fax: 813/632-7664  
[anna.brantley@dep.state.fl.us](mailto:anna.brantley@dep.state.fl.us)

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Mimi Drew is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*





# Florida Department of Environmental Protection

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

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard, Jr.  
Secretary

Transmitted electronically only:  
[bkennedy@pascocountyfl.net](mailto:bkennedy@pascocountyfl.net)

January 20, 2011

Mr. Bruce Kennedy, P.E.  
Assistant County Administrator  
Pasco County Public Works/Utilities  
7530 Little Road,  
New Port Richey, Fl, 34654

RE: West Pasco County Class III Landfill, Pasco County  
Pending Permit Modification No.: 26254-002-SO/IM to  
Existing Permit No.: 26254-001-SO/T3  
WACS Id No.: 45799

Dear Mr. Kennedy:

This is to acknowledge receipt of your submittal dated December 20, 2010 (received December 21, 2010) in support of your application for permit modification, dated May 2010 (received June 16, 2010) prepared by CH2MHill to construct improvements and modify operations of a Class III landfill referred to as the West Pasco County Class III Landfill, located at 14230 Hays Road, Spring Hill, Florida.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes. Your application for a permit modification is incomplete. This is the Department's third request for information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste permit application [Chapter 62-701, Florida Administrative Code (F.A.C.)].

**GENERAL:**

1. The requested information and comments below do not repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.

2. Please submit **4 copies** of all requested information. Please specify if revised information is intended to supplement, or replace, previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be underlined underlined or a similar notation method may be used. This format will expedite the review process. Please include the revision date on all revised pages.

3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.

4. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate. **Please be reminded that all calculations must be signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.**

**Solid Waste Class III Landfill Application for Intermediate Modification**

The following information is needed in support of the solid waste permit application [Chapter 62-701, Florida Administrative Code (F.A.C.)]. Please note that the comments below are numbered the same as the Department's November 2, 2010 letter. No additional information is requested for the following comments: #1., 2., 3.a., 3.b., 3.d., 4.a-d., 5., 7. and 8.c, and 8.d..

3. Section 1 Permit Application.

c. **Section B, Additional Information, Replacement page 2-2 (Dec 2010).** This section states that it refers to the CDO and seems to indicate that engines will be accepted at the CDO while no management procedures are provided in the CDO Operations Plan. Please clarify whether these materials are accepted at the CDO and revise this section accordingly (See coment #8.b. below).

4. Plans and Drawings, Rules 62-701.320(7)(f), and 62-701.710(2)(b), F.A.C. Please provide the following additional information and revisions to the plans.

**As previously requested, please provide full sized 22 by 34 inch revised drawings to replace drawings submitted in the initial application package. These revised drawings should include all final revisions made during the review process for each drawing.**

6. Cover Page Format, Rule 62-701.320(7)(d), F.A.C. As previously requested, please provide a revised cover page for the application that is signed and sealed by the project engineer.

8. Citizens Drop Off Operations Plan.

a. **As previously requested**, please clarify all references to a "transfer station" in this operations plan, and revise all appropriate sections accordingly. **This includes, for example, references to features which are not shown in the current design of this facility, including leachate collection system components and exhaust fans.**

b. **§1.1 Facility Description.** This section indicates that yard trash and engines may be accepted at the CDO. Please provide specific procedures for management of these materials (see comment #3.c. above). Please provide a table listing the maximum quantity and storage times for each waste and recyclable materials to be accepted at the CDO. Please include this table in the Operations Plan.

e. **§1.1.2 MSW.** *As previously requested*, please provide information regarding leak prevention and containment for any leachate that may be generated and leak from the compactors. Unless information is provided that demonstrates that the leachate will not violate Department water quality standards and criteria, containment procedures should not include leachate running off to stormwater as indicated in this response. Please revise this section and response as appropriate.

f. **§1.3 Contingency Plan.** The response to this item lists Rita Peckenschneider as the primary emergency coordinator, while her name appears struckthrough twice in the revised Operations Plan. Please specify the primary emergency coordinator, and revise this section accordingly.

g. **§1.3.1 Operational Interruptions.** The response to this item indicates that liquid will be managed in accordance with the spill procedures in §1.3.2. and removed with absorbent material. The hot load procedures indicated that liquid from the floor will be collected and managed as leachate. Since the design does not include leachate collection drains, please clarify and revise this section accordingly.


h. **§1.7 Facility Closure.** The drawings submitted do not appear to show a leachate collection system in the proposed CDO. *As previously requested*, Please clarify the references to drains, and leachate and sludge volumes in this section. Alternatively, provide revised drawings as appropriate.

i. **§1.1.4 Waste Tires/Waste Oil (December 2010).** Please clarify whether waste oil will be accepted, §1.1 indicates that it will not be. If waste oil will be accepted please provide specific procedures for management of this material (see comment #8.b. above). If waste tires will be accepted but not stored in a roll off, please provide specific management and storage procedures for these tires. Please revise this section accordingly.

This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the department and may be subject to revision pursuant to additional information and further review.

Please submit a response **by February 10, 2011**, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than **the date noted above**, you should develop an alternate specific time table for the submission of the requested information for Department review and consideration. Pursuant to the provisions of Rule 62-4.055(1), F.A.C., if the Department does not receive a timely, complete response to this request for information the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available. You are requested to submit your responses to this letter together, as one complete package. Please contact me at (813)632-7600 ext. 375 if you have any questions.

Sincerely,



Nancy Gaskin  
Solid Waste Program  
Southwest District

ndg

cc: Bo Bruner, P.E., CH2MHill, [bbruner@ch2m.com](mailto:bbruner@ch2m.com)  
John Power, Pasco County, [jpower@pascocountyfl.net](mailto:jpower@pascocountyfl.net)  
Susan Pelz, FDEP Tampa (email)  
Steve Morgan, FDEP, Tampa (email)  
Melissa Madden, FDEP Tampa (email)  
Frank Hornbrook, FDEP Tallahassee (email)

Brantley, Anna

---

**From:** Pelz, Susan  
**To:** Brantley, Anna  
**Sent:** Thursday, January 20, 2011 3:18 PM  
**Subject:** Read: West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) -  
Adobe Acrobat Professional

Your message was read on Thursday, January 20, 2011 3:17:55 PM (GMT-05:00) Eastern Time (US & Canada).

Brantley, Anna

---

**From:** Gaskin, Nancy  
**To:** Brantley, Anna  
**Sent:** Thursday, January 20, 2011 4:01 PM  
**Subject:** Read: West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) - Adobe Acrobat Professional

Your message was read on Thursday, January 20, 2011 4:01:07 PM (GMT-05:00) Eastern Time (US & Canada).

Brantley, Anna

---

**From:** Hornbrook, Frank  
**To:** Brantley, Anna  
**Sent:** Thursday, January 20, 2011 3:47 PM  
**Subject:** Read: West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) -  
Adobe Acrobat Professional

Your message was read on Thursday, January 20, 2011 3:46:44 PM (GMT-05:00) Eastern Time (US & Canada).

Brantley, Anna

---

**From:** John Power [jpower@pascocountyfl.net]  
**To:** Brantley, Anna  
**Sent:** Friday, January 21, 2011 8:22 AM  
**Subject:** Read: West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) - Adobe Acrobat Professional

Your message was read on Friday, January 21, 2011 8:22:24 AM (GMT-05:00) Eastern Time (US & Canada).



Brantley, Anna

---

**From:** Madden, Melissa  
**To:** Brantley, Anna  
**Sent:** Thursday, January 20, 2011 5:27 PM  
**Subject:** Read: West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) - Adobe Acrobat Professional

Your message was read on Thursday, January 20, 2011 5:27:18 PM (GMT-05:00) Eastern Time (US & Canada).

Brantley, Anna

---

**From:** Bo.Bruner@CH2M.com  
**To:** Brantley, Anna  
**Sent:** Thursday, January 20, 2011 3:33 PM  
**Subject:** Read: West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) -  
Adobe Acrobat Professional

Your message was read on Thursday, January 20, 2011 3:33:23 PM (GMT-05:00) Eastern Time (US & Canada).

Brantley, Anna

---

**From:** Morgan, Steve  
**To:** Brantley, Anna  
**Sent:** Thursday, January 20, 2011 2:56 PM  
**Subject:** Read: West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) -  
Adobe Acrobat Professional

Your message was read on Thursday, January 20, 2011 2:55:42 PM (GMT-05:00) Eastern Time (US & Canada).

Brantley, Anna

---

**From:** Mariana Vitorino [mvitorino@pascocountyfl.net]  
**To:** Brantley, Anna  
**Sent:** Thursday, January 20, 2011 2:52 PM  
**Subject:** Read: West Pasco CL III\_26254-002-SO-IM\_RAI #3 emailed 1-20-2011.pdf (SECURED) - Adobe Acrobat Professional

Your message was read on Thursday, January 20, 2011 2:52:12 PM (GMT-05:00) Eastern Time (US & Canada).

FILE

# CH2MHILL TRANSMITTAL

To: Florida Department of Environmental Protection  
Southwest District  
13051 N. Telecom Pkwy  
Temple Terrace, Florida  
33637  
816-632-7600

From: CH2M HILL  
R.J. Bruner III, PE  
3011 SW Williston Road  
Gainesville, FL 32608  
352-384-7023  
Bo.Bruner@ch2m.com

Attn: Solid Waste Division- Nancy Gaskin

Date: December 20, 2010

Re: Modification to Existing Facility

We Are Sending You: Method of shipment: FedEx

Response to Permit Application Solid Waste Facility

Quantity	Description
4	West Pasco Response to RAI for the Permit Application for Solid Waste System Upgrade

If the material received is not as listed, please notify us at once.

Remarks:

Dept. of Environmental Protection  
DEC 21 2010  
Southwest District

Copy To:FILE

INSERTED INTO OCULUS  
JAN 12 2011  
INITIAL *md*



3011 S.W. Williston Road  
Gainesville, Florida 32608-3964  
Tel (352) 335-7991

December 20, 2010

Nancy Gaskin  
Solid Waste Section  
FDEP South West District  
13051 N. Telecom Parkway  
Temple Terrace, FL 33637

Subject: West Pasco County Class III Landfill, Pasco County  
Pending Permit Modification No.: 26254-002/IM to  
Existing Permit No.:26445-001-SO/T3  
WACS Id No.:45920

Dept. of Environmental  
Protection  
DEC 21 2010  
Southwest District

Dear Ms. Gaskin:

This letter is a response to the department's first request for information dated July 15, 2010 regarding the above mentioned subject matter. Items that have been revised are the only items that are included in this package.

General:

1. The requested information and comments below do not repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page drawing detail number, etc. where the information has been presented in the original submittal.

*Response to Comment 1. - Acknowledged.*

2. Please Submit **4 copies** of all requested information. Please specify if the revised information is intended to supplement, or replace, previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be underlined (underlined) or a similar notation method may be used. This format will expedite the review process. Please include the revision date on all revised pages.

*Response to Comment 2. - Acknowledged.*

3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same

numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, ect.

*Response to Comment 3. – Acknowledged.*

Documents to be replaced:

*Table of Contents - Page 2 Attachments*

*Section 2, Additional Information (62-701,FAC)- Page 2-2*

*Attachment F - Operations Plan & Citizen Drop Off Operations Plan*

Documents revised:

*Attachment C, Construction Drawing sheet 05-C-104*

New Documents:

*Attachment H - Copy of Environmental Resource Permit*

*Attachment I - Citizen Drop Off Layout*

4. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate. **Please be reminded that all calculations must be signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.**

*Response to Comment 3. – Acknowledged.*

### **Solid Waste Class III Landfill Application for Intermediate Modification**

1. Operations Plan, Rules 62-701.320(7)(e) and 62-701.50(2), F.A.C.
  - a. When compared to the currently permitted Landfill Operations Plan for West Pasco Class III Landfill (revised June 2008, prepared by CDM) the proposed operations plan lacks the most recent revisions made to the current permitted Operations Plan.

As previously requested, please provide a **current** facility Operation Plan including revisions which reflect all changes operational procedures and referenced documents, resulting from the construction improvements proposed in this application. Please provide revise attachments for the facility Operations Plan and revise all references to these figures.

*Response to Comment 1. – Current facility Operations Plan is included with revisions see Attachment F, Operations Plan.*

2. Application form, Rule 62-701.320 (5) (a) & (7) (b), F.A.C.  
a. **Item A.6. No additional information is requested for this item.**

*Response to Comment 2.a – Acknowledged.*

- b. **Item A.7. No additional information is requested for this item.**

*Response to Comment 2.b. – Acknowledged.*

3. Section 1 Permit Application

- a. **§1.1 No additional information is requested for this item.**

*Response to Comment 3.a. - Acknowledged.*

- b. **§2.3 No additional information is requested for this item.**

*Response to Comment 3.b. - Acknowledged.*

- c. **§2.4 No additional information is requested for this item.**

*Response to Comment 3.c. - Acknowledged.*

- d. **§2.9 A copy of the ERP permit will be provided at issuance.  
No additional information is requested for this item.**

*A copy of permit is provided see Attachment H, Environment Resource Permit. (FDEP File No. 51-0301502-001)*

4. Plans and Drawings, Rules 62-701.320(7) (f), and 62-701.710(2) (b), F.A.C.  
Please provide the following additional information and revisions to the plans.

**Please provide full sized 22 by 34 inch drawings showing all revisions to replace drawings initially submitted as part of the application package.**

- a. **05-C-102. No additional information is requested for this item expect.**

*Response to Comment 4.a. – Acknowledged.*

- a. **05-C-104.** Please provide the site plan showing the facility configuration included with the Attachment C Construction Drawings referenced in response to this item. (See also Comment #8 below.)

*Response to Comment 4.b. – Sheet 05-C-104 has been revised to where recycle box area was called out will be bulky household waste, see Attachment C Construction Drawings*



Dept. of Environmental  
Protection  
DEC 21 2010  
Southwest District

for revision cloud and signed and sealed drawing. Site Plan of facility configuration will include not recyclables initially, there will be space allocated for recycles for future use. This has been revised on Attachment I, Citizen Drop Off Layout and the Attachment F, Citizen Drop Off Operations Plan.

- b. **05-C-106. No additional information is requested for this item.**

*Response to Comment 4.c. – Acknowledged.*

- c. **50-A-102. No additional information is requested for this item.**

*Response to Comment 4.d.- Acknowledged.*

5. Notice of Application, Rule 62-701.320 (8), F.A.C. **No additional information is requested for this item.**

*Response to Comment 5 – Acknowledged.*

6. Cover Page Format, Rule 62-701.320(7) (d), F.A.C. Please provide a revised cover page for the application that is signed and sealed by the project engineer.

*Response to Comment 6- Acknowledged.*

7. Financial Assurance and Closure cost Estimates, 62-701.630 F.A.C. **No additional information is requested for this item.**

*Response to Comment 7 - Acknowledged.*

8. Citizens Drop Off Operations Plan

- a. Please clarify all references to a “transfer station” in this operations plan, and revise all appropriate sections.

*Response to Comment 8a. – The “transfer station” references within the citizen drop off operations plan is referencing the citizen drop off area. Citizen Drop Off Operations Plan has been revised where “transfer station” is replaced with “citizen drop off area”.*

- b. **§1.1 Facility Description.** Please revise this section to specify the total maximum number of waste containers in the CDO; including roll off containers, 6-8CY containers, tanks, drums, and pallets, ect.

*Response to Comment 8b. – There will be a maximum of ten 40-cubic yard roll-off containers or stationary compactors for MSW waste, an additional two 40-cubic yard roll-off containers for future recyclables, additional 6-8 CY containers pallets, and drums will be used as needed for future growth. See Attachment I, Citizen Drop Off Layout for*

*locations. Initially the facility will have four stationary compactors and six 40-cubic yard roll off containers for MSW waste.*

- c. **§1.1.2 Recycling Drop-Off Center.** Please revise this section to specify if this section is referencing the existing recycling area or is referencing the recycling area in the proposed CDO. Please revise this section to specify the location of the five bunkers referenced.

*Response to Comment 8c. – Section has been revised for future use of recycling drop off. See updated Attachment F Citizen Drop off Operations Plan.*

- d. **§1.1.2 Blue Bag Collection Area.** Please revise this section to specify the location of this blue bag 40 CY container in the CDO.

*Response to Comment 8d. – Blue Bag collection will not be collected at the CDO. Section has been removed from the CDO Operations Plan.*

- e. **§1.1.4 MSW.** Please revise this section to specify the location and number of MSW collection container (s) in the proposed CDO. Facility drawings provided indicate that compactor boxes will be used and if so revise this section accordingly. Please provide information regarding leak prevention and containment for any leachate that may be generated and leak from these compactors. Please revise this section as appropriate.

*Response to Comment 8e. – There are ten MSW containers proposed for the CDO. Generation of leachate is minimized due to the canopy coving the area. Any noticeable spills such as leachate from compactors will be cleaned up with absorbent material per the Operations Plan. Minor losses will be managed by the stormwater ponds under the ERP permit.*

- f. **§1.3 Contingency Plan.** Please verify the primary emergency coordinator/responsible individual listed and revise this section accordingly.

*Response to Comment 8f. – Rita Peckenschneider, Solid Waste Operator (352) 521-0500 is the primary emergency coordinator.*

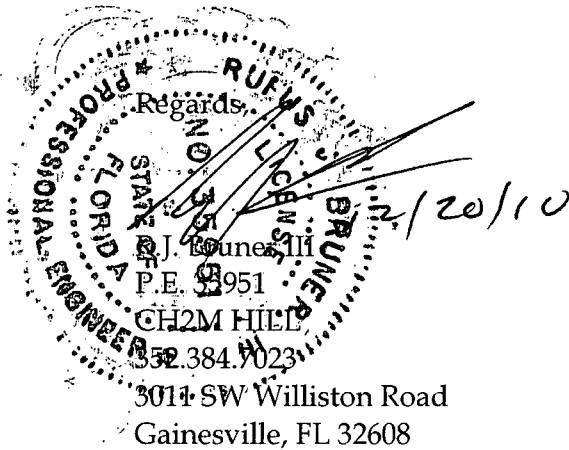
- g. **§1.1.3 Operational Interruptions.** Please clarify the reference to a tipping floor in this section. Please specify how liquid will be collected and stored as leachate from the floor of the CDO.

*Response to Comment 8g. – Tipping floor was a typographical error. See response to comment 8e. for liquid collected and stored as leachate from the floor of the CDO.*

- h. **§1.7 Facility Closure.** The drawings submitted do not show a leachate collection system proposed CDO. Please clarify the references to drains , and leachate and sludge volumes in this section. Alternatively, provide revised drawings as appropriate.

*Response to Comment 8h - See response to comment 8e.*

Regards,  
12/20/10  
J. J. Jones, III  
P.E. 9951  
CH2M HILL  
352.384.7023  
3011 SW Williston Road  
Gainesville, FL 32608



Brantley, Anna

---

**From:** Brantley, Anna  
**Sent:** Wednesday, November 03, 2010 8:33 AM  
**To:** 'bkennedy@pascocountyfl.net'; 'bbruner@ch2m.com'; 'jpower@pascocountyfl.net'; Morgan, Steve; Madden, Melissa; Hornbrook, Frank; Pelz, Susan  
**Cc:** Gaskin, Nancy  
**Subject:** West Pasco CL III\_26254-002-SO-IM\_RAI #2 emailed 11-3-2010.pdf (SECURED) - Adobe Acrobat Professional  
**Attachments:** West Pasco CL III\_26254-002-SO-IM\_RAI #2 emailed 11-3-2010

Attached is an electronic copy of the Request for Additional Information (RAI # 2) letter and attachments for the above permit application. This is the only copy you will received.

**NOTE:** If you have questions concerning the content of this document, please contact the DEP permit processor [nancy.gaskin@dep.state.fl.us](mailto:nancy.gaskin@dep.state.fl.us)

This is the only electronic copy you will receive. Acrobat Reader 6.0 or greater is required to read this document, and is available for downloading at: <http://www.adobe.com/products/acrobat/readstep.html>

**Anna.**

Anna Brantley  
Administrative Assistant II  
FL DEP / SWD / Waste Management  
13051 North Telecom Parkway  
Temple Terrace FL 33637-0629  
Tel: 813/632-7600, Ext. 377  
Fax: 813/632-7664  
[anna.brantley@dep.state.fl.us](mailto:anna.brantley@dep.state.fl.us)

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*



# 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

Michael W. Sole  
Secretary

Transmitted electronically only:  
[bkennedy@pascocountyfl.net](mailto:bkennedy@pascocountyfl.net)

November 2, 2010

Mr. Bruce Kennedy, P.E.  
Assistant County Administrator  
Pasco County Public Works/Utilities  
7530 Little Road,  
New Port Richey, Fl, 34654

RE: West Pasco County Class III Landfill, Pasco County  
Pending Permit Modification No.: 26254-002-SO/IM to  
Existing Permit No.: 26445-001-SO/T3  
WACS Id No.: 45920

Dear Mr. Kennedy:

This is to acknowledge receipt of your submittal dated October 8, 2010 (received October 12, 2010) in support of your application for permit modification, dated May 2010 (received June 16, 2010) prepared by CH2MHill to construct improvements and modify operations of a Class III landfill referred to as the West Pasco County Class III Landfill, located at 14230 Hays Road, Spring Hill, Florida.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes. Your application for a permit modification is incomplete. This is the Department's second request for information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste permit application [Chapter 62-701, Florida Administrative Code (F.A.C.)].

**GENERAL:**

1. The requested information and comments below do not repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.

2. Please submit **4 copies** of all requested information. Please specify if revised information is intended to supplement, or replace, previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be underlined underlined or a similar notation method may be used. This format will expedite the review process. Please include the revision date on all revised pages.

3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.

4. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate. **Please be reminded that all calculations must be signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.**

**Solid Waste Class III Landfill Application for Intermediate Modification**

1. Operations Plan, Rules 62-701.320(7)(e) and 62-701.500(2), F.A.C.
  - a. When compared to the currently permitted Landfill Operations Plan for West Pasco Class III Landfill (revised June 2008, prepared by CDM) the proposed operations plan submitted with this application appears outdated. The proposed operation plan lacks the most recent revisions made to the current permitted Operations Plan.

As previously requested, please provide a **current** facility Operation Plan including revisions which reflect all changes to operational procedures and referenced documents, resulting from the construction improvements proposed in this application. Please provide revised attachments for the facility Operations Plan and revise all references to these figures.

2. Application Form, Rule 62-701.320(5)(a)&(7)(b), F.A.C.
  - a. **Item A.6. No additional information is requested for this item.**
  - b. **Item A.7. No additional information is requested for this item.**
3. Section 1 Permit Application.
  - a. **§1.1. No additional information is requested for this item.**

- b. **§2.3. No additional information is requested for this item.**
- c. **§2.4. No additional information is requested for this item.**
- d. **§2.9. A copy of the ERP permit will be provided at issuance.  
No additional information is requested for this item at this time.**

4. Plans and Drawings, Rules 62-701.320(7)(f), and 62-701.710(2)(b), F.A.C.

Please provide the following additional information and revisions to the plans.

**Please provide full sized 22 by 34 inch drawings showing all revisions to replace drawings initially submitted as part of the application package.**

- a. **05-C-102. No additional information is requested for this item except.**
- b. **05-C-104.** Please provide the site plan showing the facility configuration included with the Attachment C Construction Drawings referenced in the response to this item. (See also Comment #8 below.)
- c. **05-C-106. No additional information is requested for this item.**
- d. **50-A-102. No additional information is requested for this item.**

5. Notice of Application, Rule 62-701.320(8), F.A.C. **No additional information is requested for this item.**

6. Cover Page Format, Rule 62-701.320(7)(d), F.A.C. As previously requested, please provide a revised cover page for the application that is signed and sealed by the project engineer.

7. Financial Assurance and Closure Cost Estimates, 62-701.630 F.A.C. **No additional information is requested for this item.**

8. Citizens Drop Off Operations Plan.

- a. Please clarify all references to a "transfer station" in this operations plan, and revise all appropriate sections accordingly.
- b. **§1.1 Facility Description.** Please revise this section to specify the total maximum number of waste containers in the CDO; including roll off containers, 6-8CY containers, tanks, drums, and pallets, etc.

- c. **§1.1.2 Recycling Drop-Off Center.** Please revise this section to specify if this section is referencing the existing recycling area or is referencing the recycling area in the proposed CDO. Please revise this section to specify the location of the five bunkers referenced.
- d. **§1.1.3 Blue Bag Collection Area.** Please revise this section to specify the location of this blue bag 40 CY container in the CDO.
- e. **§1.1.4 MSW.** Please revise this section to specify the location and number of MSW collection container(s) in the proposed CDO. Facility drawings provided indicate that compactor boxes will be used to collect MSW. Please specify whether compactors will be used and if so revise this section accordingly. Please provide information regarding leak prevention and containment for any leachate that may be generated and leak from these compactors. Please revise this section as appropriate.
- f. **§1.3 Contingency Plan.** Please verify the primary emergency coordinator/responsible individual listed and revise this section accordingly.
- g. **§1.1.3 Operational Interruptions.** Please clarify the reference to a tipping floor in this section. Please specify how liquid will be collected and stored as leachate from the floor of the CDO.
- h. **§1.7 Facility Closure.** The drawings submitted do not show a leachate collection system in the proposed CDO. Please clarify the references to drains, and leachate and sludge volumes in this section. Alternatively, provide revised drawings as appropriate.

This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the department and may be subject to revision pursuant to additional information and further review.

Please submit a response **by December 15, 2010**, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than **the date noted above**, you should develop an alternate specific time table for the submission of the requested information for Department review and consideration. Pursuant to the provisions of Rule 62-4.055(1), F.A.C., if the Department does not receive a timely, complete response to this request for information the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

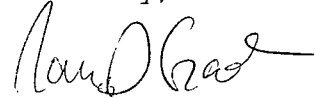


Mr. Bruce Kennedy,  
Assistant County Administrator  
Pasco County Public Works/ Utilities

West Pasco County Class III Landfill  
Page 5 of 5

You are requested to submit your responses to this letter together, as one complete package. Please contact me at (813)632-7600 ext. 375 if you have any questions.

Sincerely,



Nancy Gaskin  
Solid Waste Program  
Southwest District

ndg

cc: Bo Bruner, P.E., CH2MHill, [bbruner@ch2m.com](mailto:bbruner@ch2m.com)  
John Power, Pasco County, [jpower@pascocountyfl.net](mailto:jpower@pascocountyfl.net)  
Susan Pelz, FDEP Tampa (email)  
Steve Morgan, FDEP, Tampa (email)  
Melissa Madden, FDEP Tampa (email)  
Frank Hornbrook, FDEP Tallahassee (email)

# CH2MHILL TRANSMITTAL

To: Florida Department of  
Environmental Protection  
Southwest District  
13051 N. Telecom Pkwy  
Temple Terrace, Florida  
33637  
816-632-7600

From: CH2M HILL  
R.J. Bruner III, PE  
3011 SW Williston Road  
Gainesville, FL 32608  
352-384-7023  
Bo.Burner@ch2m.com

Attn: Solid Waste Division- Nancy Gaskin

Date: October 11, 2010

Re: Modification to Existing Facility

We Are Sending You:

Method of shipment: FedEx

Response to Permit Application Solid Waste Facility

Quantity	Description
4	East Pasco Response to RAI for the Permit Application for Solid Waste System Upgrade
4	West Pasco Response to RAI for the Permit Application for Solid Waste System Upgrade

If the material received is not as listed, please notify us at once.

Remarks:

Copy To:FILE

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
OCT 12 2010  
SOUTHWEST DISTRICT  
TAMPA

INSERTED INTO OCULUS  
492235  
OCT 18 2010  
INITIAL MK

File



**CH2MHILL**

3011 S.W. Williston Road  
Gainesville, Florida 32608-3964  
Tel (352) 335-7991

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
OCT 12 2010  
SOUTHWEST DISTRICT  
TAMPA

October 8, 2010

Nancy Gaskin  
Solid Waste Section  
FDEP South West District  
13051 N. Telecom Parkway  
Temple Terrace, FL 33637

Subject: West Pasco County Class III Landfill, Pasco County  
Pending Permit Modification No.: 26254-002/IM to  
Existing Permit No.: 26445-001-SO/T3  
WACS Id No.: 45920

45797

Dear Ms. Gaskin:

This letter is a response to the department's first request for information dated July 15, 2010 regarding the above mentioned subject matter.

General:

1. The requested information and comments below do not repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page drawing detail number, etc. where the information has been presented in the original submittal.

*Response to Comment 1. - Acknowledged*

2. Please Submit **4 copies** of all requested information. Please specify if the revised information is intended to supplement, or replace, previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be underlined (underlined) or a similar notation method may be used. This format will expedite the review process. Please include the revision date on all revised pages.

*Response to Comment 2. - Acknowledged*

3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same

numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, ect.

*Response to Comment 3. – Acknowledged*

4. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate. **Please be reminded that all calculations must be signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.**

*Response to Comment 3. – Acknowledged*

#### **Solid Waste Class III Landfill Application for Intermediate Modification**

1. Operations Plan, Rules 62-701.320(7)(e) and 62-701.50(2), F.A.C. Please provide a revised facility Operation Plan which reflects all changes to construction improvements proposed in this application. Please provide revised attachments for the facility Operations Plan and revise all references to these figures.

*Response to Comment 1. – Operations plan attached in Attachment F.*

2. Application form, Rule 62-701.320 (5) (a) & (7) (b), F.A.C.
  - a. Item A.6 Please verify the address listed in this item. The address given is not consistent to the address listed on the current facility permit. Revise this form accordingly.

*Response to Comment 2.a – Incorrect address used. Updated Item A.6 on application form to 14230 Hays Road, consistent with the current permit address.*

- b. Item A.7. Please verify the coordinates given. The coordinates given are not consistent with the coordinates listed on the current facility permit. Please revise this form accordingly.

*Response to Comment 2.b. – Incorrect coordinates use replace with:*

28° 22' 22 " N 82° 34' 06" W

3. Section 1 Permit Application

- a. **§1.1** Please specify whether the proposed CDO will be an addition to or replacement for the currently used CDO located at the main facility entrance adjacent to the West Pasco Resources Recovery Facility.

*Response to Comment 3.a. - If the proposed CDO is constructed it will serve as the replacement facility for the existing facility located at the main facility entrance. CDO is an alternate bid item and may not be constructed. Alternate bid item is defined as the construction of the proposed CDO facility will receive bid proposals separately from the rest of the proposed construction. Depending on bid proposal and funding available during the bid phase, the owner may elect to construct the CDO or not to.*

- b. **§2.3** Please clarify what is meant by an alternate bid item. Please provide an updated status for this alternate bidding procedure. Please specify whether construction is planned regardless of bidding or if construction is dependent on results of the bidding process. Please revise and submit all pertinent section of the operations plan to reflect changes resulting from the construction and operation of the proposed CDO. (See also Comment #1 above.)

*Response to Comment 3.b. - See response to comment 3.a above.*

- c. **§2.4** Please provide the plan sheet 30-P-101 referenced in this section

*Response to Comment 3.c. - Plan sheet included Attachment C -Construction Drawings.*

- d. **§2.9** Please confirm submittal of the ERP application referenced and provide a copy of the permit upon issuance.

*Response to Comment 3.d. - Submitted application on June 16, 2010. Request for additional information received July 20, 2010. Responses to RAI return to agency August 17, 2010.*

*A copy of permit will be provided upon issuance. (FDEP File No. 51-0301502-001)*

4. Plans and Drawings, Rules 62-701.320(7) (f), and 62-701.710(2) (b), F.A.C. Due to extent and complexity of the Department's comments and questions and difficulty in describing some comments related to the these drawings, these drawings will be discussed in detail at the meeting requested at the end of this letter. Please provide revised drawings that address the comments provided below and at the above-reference meeting, including all necessary details for the construction and operation of the facility. **The drawings will be reviewed in their entirety after the responses to these requests for information are submitted.**

*Response to Comment 4. - Meeting held Wednesday September 1, 2010 2 p.m. to discuss Drawings.*

- a. **05-C-102.** Please verify whether the sanitary sewer line from the scale house is intended to discharge to Leachate Tank # 1 as indicated on this sheet. Please provide piping details for the water and sanitary sewer lines for the scale house. Please provide a detail view of the sanitary sewer line connection with Leachate Tank #1.

*Response to Comment 4.a. - Revised to pump directly into the force main. See Attachment C, Construction Drawing 05-C-102 and 05-C-504.*

- b. **05-C-104.** Please define alternate bid as it is used on this sheet. (See also Comment #3.b above.) Please verify whether the sanitary sewer line for the Attendant Building is intended to discharge to Leachate Tank #1. This sheet identifies a section of pipe as both a leachate force main in relation to the sewer line. Please identify the location of the leachate force main in relation to the sewer line from the Attendant building. Provide a detail view of the sanitary sewer line connection with Leachate Tank #1. Please provide specific procedures for the storage and management of all recyclables to be managed in the area designated on this sheet. (See also Comment #1 above).

*Response to Comment 4.b. - See response from comment 3.a. for alternate bid item definition. Proposed sanitary sewer line from the attendant building is proposed to connect directly into the force main. See Attachment C Construction Drawing 05-C-104 and 05-C-504.*

*The storage and management of the recyclables is a collection center that is open to the public from 7:00 a.m. to 4:00 p.m., Monday through Saturday of each week. The center is staffed by a trained operator who is responsible for assisting citizens with placing recyclable materials in the proper location. The center has one covered 40 cubic yard roll-off container for commingled glass, aluminum cans, steel cans, and plastic containers with recycling codes No.1 and No. 2. A second roll-off container is provided for newsprint only. The facility configuration is shown on the site plan attached as Attachment C Construction Drawings of this Report. The maximum storage time for special waste is managed is up to seven days and normally special wastes are removed twice a week.*

*Large or special items that can be recycled are stored in concrete bunkers. Within this area, white goods and scrap metal are accepted and sold for recycling by County contract. Fluids (Freon, gasoline, oil, residual propane, etc) are removed from white goods and special items prior to removal from site. These fluids are managed by the Household*

*Hazardous Waste Collection Center. Also stored within one of the bunkers are electronic wastes, which are collected for recycling on a periodic, as-needed basis.*

*Collected waste tires are stored in a 40 cubic yard roll-off container for transport to the Tire Processing site at the West Pasco Facility. Waste tires accumulated at the drop-off center will be removed within seven days of receipt. All waste processing activities (MSW disposal, tire shredding, wood chipping, etc.) take place at the Pasco County Resource Recovery Facility on Hayes Road in New Port Richey, Florida.*

- c. **05-C-106.** This sheet identifies the previously identified Attendant Building as "New Scale House". Please verify that scales will not be installed at this building.

*Response to Comment 4.c. – Drawing was mislabeled. Scales will not be installed at this building. Building is the proposed attendant building. See Attachment C, Construction Drawings 05-C-106.*

- d. **50-A-102.** This sheet indicated that the existing scale house trailer will not be demolished, but the scales and deck will be removed. Please specify the future use of this building and whether it will remain connected to utilities. Drawings currently reference in the facility permit show this building connected to a septic system. Please revise this drawing to identify the proposed utilities and piping detail for this building. (See also Comment #1 above.)

*Response to Comment 4.d.-The future use of the facility will be an employee break room. The connections to the existing utilities will remain as is.*

5. Notice of Application, Rule 62-701.320 (8), F.A.C. Please publish the attached Notice of Application in a newspaper of general circulation in the area of the project, and provide proof of publication to the Department.

*Response to Comment 5. – Notice of Application included in Attachment G.*

6. Cover Page Format, Rule 62-701.320(7) (d), F.A.C. Please provide a revised cover page for the application that is signed and sealed by the project engineer. Please provide the Certification of Authorization number for the authorized engineering business that prepared the application.

*Response to Comment 6. New cover sheet provided and added the Certificate of Authorization number for the authorized engineering business that prepared this application. Engineering Business Number: EB0000072*

7. Financial Assurance and Closure cost Estimates, 62-701.630 F.A.C Please verify whether any potential increase in waste and material management resultant from these improvements will not exceed the financial assurance provided. If so please submit revised closure cost estimates for the facility.

*Response to Comment 7. - Improvements are not expected to increase amount of waste collected. The existing facility will remain as currently operated during construction and the facility will include new inbound and outbound scales (replacing the old scales), bypass lanes, and associated roadwork. A new citizen drop off area may be constructed with an attendant building; this will be an alternate bid item on plans. Also see response to comment 3.a.*



It will include design of proposed CDO =

↳ will ~~put~~ operation procedures in Application

↳ We will provide design : ops of proposed CDO

↳ when they actually Build CDO → will submit MM op/need  
to put proposed procedures in Op Plan

# Meeting Agenda

Pasco County Solid Waste System Upgrades

September 1, 2010, 1:30 p.m.

Florida Department of Environmental Protection

Southwest District Office

Temple Terrace, Florida

## Attendees:

### CH2M HILL

Bo Bruner

Richard Morrison

### FDEP.

Nancy Gaskin

Steve Morgan

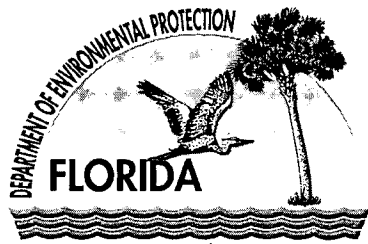
Susan Pelz

### Pasco Co.

John Power

## Topics:

- 1) Purpose of Meeting – Discuss RAI's for East and West Pasco Solid Waste facility Upgrades
- 2) Introductions
- 3) Background and Description of Upgrades
  - a) West Pasco
  - b) East Pasco
- 4) Detailed Review of RAI Responses
  - a) West Pasco
  - b) East Pasco
- 5) Schedule



# Florida Department of Environmental Protection

Southwest District  
 13051 N. Telecom Parkway  
 Temple Terrace, Florida 33637-0926

Charlie Crist  
 Governor

Jeff Kottkamp  
 Lt. Governor

Michael W. Sole  
 Secretary

DATE: 9/1/10

TIME: 1:30 pm

LOCATION/CONFERENCE ROOM: SWD, Waste Con. RM

MEETING SUBJECT: Leachate Tank: Sealer House MODIFICATIONS TO EAST PASCO TS: WEST PASCO CL III

## ATTENDEES

Name	Affiliation	Telephone	E-mail
<u>NANCY GASKIN, FDEP</u>	<u>FDEP SOLID WASTE</u>	<u>(813) 632-7600 ext 375</u>	<u>NANCY.GASKIN@DEP.STATE.FL.US</u>
<u>STEVE MORGAN</u>	<u>FDEP SOLID WASTE</u>	<u>" ext 385</u>	<u>Steve.Morgan@ " "</u>
<u>B. Bruner</u>	<u>CH2M HILL</u>	<u>352/213-3466</u>	<u>bbruner@ch2m.com</u>
<u>John Powell</u>	<u>PASCO Co.</u>	<u>727-856-0119</u>	<u>JPowell@PascoCountyFl.net</u>
<u>Rich Morrison</u>	<u>CH2M HILL</u>	<u>352-384-7133</u>	<u>rmorris5@ch2m.com</u>

# PASCO TIMES

An Edition of the St. Petersburg Times

Published Daily

Port Richey, Pasco County, Florida

**STATE OF FLORIDA  
COUNTY OF PASCO:**

Before the undersigned authority personally appeared Jessica Attard who on oath says that she is Legal Clerk of the Pasco Times a daily newspaper published at Port Richey, in Pasco County, Florida: that the attached copy of advertisement, being a Legal Notice in the matter of RE: Notice of Application

\_\_\_\_\_ in the \_\_\_\_\_ Court was published in said newspaper in the issues of July 31, 2010

Affiant further says the said Pasco Times is a newspaper published at Port Richey, in said Pasco County, Florida, and that the said newspaper has heretofore been continuously published in said Pasco County, Florida, each day and has been entered as second class mail matter at the post office in Port Richey in said Pasco County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm, or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Jessica Attard  
Signature of Affiant

Sworn to and subscribed before me this 31st day of July, 2010.



JENNIFER BONIN  
MY COMMISSION # DD 928963  
EXPIRES: September 29, 2013  
Bonded Thru Budget Notary Services

Jennifer Bonin  
Signature of Notary Public

Personally known X or produced identification \_\_\_\_\_

Type of identification produced \_\_\_\_\_

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AUG 18 2010

SOUTHWEST DISTRICT TAMPA

**State of Florida  
Department of Environmental Protection  
Notice of Application**

The Department announces the receipt of an application for permits from Pasco County Utilities, Mr. Bruce Kennedy, P.E., Assistant County Administrator, for construction of improvements to the Class III Landfill Facility known as the West Pasco County Class III Landfill, subject to Department rules, located at 14230 Hays Road, Spring Hill, FL.

This application is being processed and is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Department of Environmental Protection, Southwest District Office, 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926. (003330735) 07/31/10

**From:** Brantley, Anna  
**Sent:** Thursday, July 15, 2010 2:48 PM  
**To:** 'bkennedy@pascocountyfl.net'; 'bbruner@ch2m.com'; Morgan, Steve; Madden, Melissa; Wick, Fred; Pelz, Susan  
**Cc:** Gaskin, Nancy  
**Subject:** West Pasco CL III. 26254-002-SO-IM.RAI - emailed 7-15-2010.pdf (SECURED) - Adobe Acrobat Professional  
**Attachments:** West Pasco CL III. 26254-002-SO-IM.RAI - emailed 7-15-2010

Attached is an electronic copy of the Request for Additional Information (RAI #1 ) letter and attachments for the above permit application.

**NOTE:** If you have questions concerning the content of this document, please contact the DEP permit processor [nancy.gaskin@dep.state.fl.us](mailto:nancy.gaskin@dep.state.fl.us)

This is the only electronic copy you will receive. Acrobat Reader 6.0 or greater is required to read this document, and is available for downloading at: <http://www.adobe.com/products/acrobat/readstep.html>

Anna

Anna Brantley  
Administrative Assistant II  
FL DEP / SWD / Waste Management  
13051 North Telecom Parkway  
Temple Terrace FL 33637-0629  
Tel: 813/632-7600, Ext. 377  
Fax: 813/632-7664  
[anna.brantley@dep.state.fl.us](mailto:anna.brantley@dep.state.fl.us)

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*



# 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

Michael W. Sole  
Secretary

Transmitted electronically only:  
[bkennedy@pascocountyfl.net](mailto:bkennedy@pascocountyfl.net)

July 15, 2010

Mr. Bruce Kennedy, P.E.  
Assistant County Administrator  
Pasco County Public Works/Utilities  
7530 Little Road,  
New Port Richey, Fl, 34654

RE: West Pasco County Class III Landfill, Pasco County  
Pending Permit Modification No.: 26254-002-SO/IM to  
Existing Permit No.: 26445-001-SO/T3  
WACS Id No.: 45920

Dear Mr. Kennedy:

This is to acknowledge receipt of your permit modification application and supporting documentation, dated May 2010 (received June 16, 2010) prepared by CH2M Hill to construct improvements and modify operations of a Class III landfill referred to as the West Pasco County Class III Landfill, located at 14230 Hays Road, Spring Hill, Florida.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes. Your application for a permit modification is incomplete. This is the Department's first request for information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

The following information is needed in support of the solid waste permit application [Chapter 62-701, Florida Administrative Code (F.A.C.)].

**GENERAL:**

1. The requested information and comments below do not repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.

2. Please submit **4 copies** of all requested information. Please specify if revised information is intended to supplement, or replace, previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be underlined or a similar notation method may be used. This format will expedite the review process. Please include the revision date on all revised pages.

3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.

4. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate. **Please be reminded that all calculations must be signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.**

**Solid Waste Class III Landfill Application for Intermediate Modification**

1. Operations Plan, Rules 62-701.320(7)(e) and 62-701.500(2), F.A.C. Please provide a revised facility Operation Plan which reflects all changes to operational procedures and referenced documents, resulting from the construction improvements proposed in this application. Please provide revised attachments for the facility Operations Plan and revise all references to these figures.

2. Application Form, Rule 62-701.320(5)(a)&(7)(b), F.A.C.

a. **Item A.6.** Please verify the address listed in this item. The address given is not consistent to the address listed on the current facility permit. Please revise this form accordingly.

b. **Item A.7.** Please verify the coordinates given. The coordinates given are not consistent with the coordinates listed on the current facility permit. Please revise this form accordingly.

3. Section 1 Permit Application.

a. **§1.1.** Please specify whether the proposed CDO will be an addition to or a replacement for the currently used CDO located at the main facility entrance adjacent to the West Pasco Resource Recovery Facility.

b. **§2.3.** Please clarify what is meant by an alternate bid item. Please provide an updated status for this alternate bidding procedure. Please specify whether construction is planned regardless of bidding or if construction is dependent on results of the bidding process. Please revise and submit all pertinent sections of the operations plan to reflect changes resulting from the construction and operation of the proposed CDO. (See also Comment #1 above.)

c. **§2.4.** Please provide the plan sheet 30-P-101 referenced in this section.

d. **§2.9.** Please confirm submittal of the ERP application referenced and provide a copy of the permit upon issuance.

4. Plans and Drawings, Rules 62-701.320(7)(f), and 62-701.710(2)(b), F.A.C. Due to extent and complexity of the Department's comments and questions and the difficulty in describing some comments related to these drawings, these drawings will be discussed in detail at the meeting requested at the end of this letter. Please provide revised drawings that address the comments provided below and at the above-referenced meeting, including all necessary details for the construction and operation of the facility. **The drawings will be reviewed in their entirety after the responses to these requests for information are submitted.**

- a. **05-C-102.** Please verify whether the sanitary sewer line from the scale house is intended to discharge to Leachate Tank #1 as indicated on this sheet. Please provide piping details for the water and sanitary sewer lines for the scale house. Please provide a detail view of the sanitary sewer line connection with Leachate Tank #1.
  - b. **05-C-104.** Please define alternate bid as it is used on this sheet. (See also Comment #3.b above.) Please verify whether the sanitary sewer line for the Attendant Building is intended to discharge to Leachate Tank #1. This sheet identifies a section of pipe as both a leachate force main and sanitary sewer line. Please identify the location of the leachate force main in relation to the sewer line from the Attendant Building. Please provide piping details for the water and sanitary sewer lines and connections for the Attendant Building. Provide a detail view of the sanitary sewer line connection with Leachate Tank #1. Please provide specific procedures for the storage and management of all recyclables to be managed in the area designated on this sheet. (See also Comment #1 above.)
  - c. **05-C-106.** This sheet identifies the previously identified Attendant Building as "New Scale House". Please verify that scales will not be installed at this building.
  - d. **50-A-102.** This sheet indicates that the existing scale house trailer will not be demolished, but the scales and deck will be removed. Please specify the future use of this building and whether it will remain connected to utilities. Drawings currently referenced in the facility permit show this building connected to a septic system. Please revise this drawing to identify the proposed utilities and piping detail for this building. (See also Comment #1 above.)
5. Notice of Application, Rule 62-701.320(8), F.A.C. Please publish the attached Notice of Application in a newspaper of general circulation in the area of the project, and provide proof of publication to the Department.
  6. Cover Page Format, Rule 62-701.320(7) (d), F.A.C. Please provide a revised cover page for the application that is signed and sealed by the project engineer. Please provide the Certification of Authorization number for the authorized engineering business that prepared this application.
  7. Financial Assurance and Closure Cost Estimates, 62-701.630 F.A.C. Please verify whether any potential increase in waste and material management resultant from these improvements will not exceed the financial assurance provided. If so please submit revised closure cost estimates for the facility.

This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the department and may be subject to revision pursuant to additional information and further review.

It is recommended that you contact the Department to set up a meeting to discuss this letter prior to your submittal of the required response. A date for submittal of your response will be determined at that time.



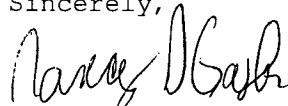
Mr. Bruce Kennedy,  
Assistant County Administrator  
Pasco County Public Works/ Utilities

West Pasco County Class III Landfill  
Page 4 of 4

This submittal should respond to all of the information requests and indicate when a response to any unanswered questions will be submitted. If the response will require longer than the time determined in the meeting, you should develop an alternate specific time table for the submission of the requested information for Department review and consideration. Pursuant to the provisions of Rule 62-4.055(1), F.A.C., if the Department does not receive a timely, complete response to this request for information the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

You are requested to submit your responses to this letter together, as one complete package. Please contact me at (813)632-7600 ext. 375 if you have any questions.

Sincerely,



Nancy Gaskin  
Solid Waste Program  
Southwest District

ndg  
cc: Bo Bruner, P.E., CH2MHill, [bbruner@ch2m.com](mailto:bbruner@ch2m.com)  
Susan Pelz, FDEP Tampa (email)  
Steve Morgan, FDEP, Tampa (email) *SM*  
Melissa Madden, FDEP Tampa (email)  
Fred Wick, FDEP Tallahassee (email)

State of Florida  
Department of Environmental Protection  
Notice of Application

The Department announces the receipt of an application for permits from Pasco County Public Works/Utilities., Mr. Bruce Kennedy, Assistant County Administrator for construction improvements to the Class III landfill facility known as the West Pasco County Class III Landfill, subject to Department rules, located at 14230 Hays Road, Spring Hill, Florida.

This application is being processed and is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m. Monday through Friday, except legal holidays, at the Department of Environmental Protection, Southwest District Office, 13051 N. Telecom Parkway, Temple Terrace, Fl. 33637-0926.

*Pasco County*

# **Solid Waste System Upgrade at West Pasco Solid Waste Management Facility**

## **Application for a Permit to Construct, Operate, Modify or Close a Solid Waste Management Facility**

Prepared for

**Pasco County Public Works Utilities**

May 2010

**Dept. of Environmental Protection**  
JUN 16 2010

**Southwest District**

134 2 binder + 32 maps  
INSERTED INTO OCULUS  
166 pap  
JUN 22 2010  
INITIAL MJ

**CH2MHILL**

**CH2MHILL** TRANSMITTAL

Dept. Of Environmental Protection

To: Florida Department of  
Environmental Protection  
Southwest District  
13051 N. Telecom Pkwy  
Temple Terrace, Florida  
33637  
816-632-7600

From: CH2M HILL  
R.J. Burner III, PE  
3011 SW Winston Road  
Gainesville, FL 32608  
352-384-7023  
Bo.Burner@ch2m.com

FEB 07 2011

Attn: Solid Waste Division- Nancy Gaskin

Date: February 4, 2011

Re: Modification to Existing Facility

We Are Sending You:

Method of shipment: FedEx - overnight

Application for a Permit to Construct, Operate, Modify,  
Or Close a Solid Waste Management Facility

Quantity	Description
4	Response to RAI #3 for the Permit Application for Solid Waste System Upgrade
4	Signed & Sealed Cover Page
4 sets	Signed and Sealed Drawings (full size)

If the material received is not as listed, please notify us at once.

Remarks:

Copy To:FILE

**Southwest District  
Permitting Application**

New Site

Site Name:		
Site ID:		
County:		
Type/Subcode:		
Fee submitted:                      ( ) correct                      ( ) incorrect		
Total Fee Required \$ _____ Need \$ _____ Refund \$ _____		

Existing Site

Site ID: <u>26254-002</u> <span style="float: right;">WAST# 45779</span>		
Project Name: <u>WEST PASCO COUNTY CLASS III LANDFILL</u>		
Type/Subcode: <del>SO/IM</del> <del>SO/IM</del> <u>SO/IM</u> New <u>Modification</u> Renewal		
Fee submitted: <u>\$000.00</u> ( ) correct      (X) incorrect		
Total Fee Required \$ <u>\$000.00</u> Need \$ _____      Refund \$ <u>\$000.00</u>		

Applicant Information

Name: <u>BRUCE E. KENNEDY</u>	
Role: <u>APPLICANT</u>	
Company: <u>PASCO CO PUBLIC WORKS/UTILITIES</u>	
Address: <u>7530 LITTLE ROAD BLDG 5-215</u>	
City: <u>NEW PORT RICHEY</u>	Zip Code: <u>34654</u>
Phone: <u>(717) 847-8145</u>	

Fee verified by: NG

Application Assigned To: NG      Date: 6/17/10

**BOARD OF COUNTY COMMISSIONERS**  
PASCO COUNTY DADE CITY, FLORIDA

DATE	CHECK NO.
06/15/10	00446497

DATE	INVOICE OR CREDIT MEMO NUMBER	VOUCHER NUMBER	DESCRIPTION	GROSS	DISCOUNTS	NET
052710	92303	1403535	PERMIT	500000	000	500000
TOTAL				500000	000	500000

Dept. Of Environmental Protection  
**JUN 16 2010**  
Southwest District

THE ATTACHED CHECK IS IN PAYMENT FOR ITEMS DESCRIBED ABOVE

ORIGINAL CHECK HAS A VOID COLORED BACKGROUND AND RED CHECK NUMBERS IMAGE THROUGH TO THE BACK OF SHEET

WARRANT PAYABLE AT  
SunTrust Bank, Nature Coast  
Brooksville, Florida

**BOARD OF COUNTY COMMISSIONERS**  
PASCO COUNTY DADE CITY, FLORIDA  
PAYING ACCOUNT  
352-521-4556

63-215-631  
00446497  
CHECK NO.  
**446497**

VOID IF NOT CASHED  
WITHIN 90 DAYS

FIVE THOUSAND AND 00/100

DATE: 06/15/10 CHECK AMOUNT: \*\*\*\*\*5,000.00

PAY TO THE ORDER OF  
FL DEPT OF ENVIRONMENTAL PROTECTION  
SOUTHWEST DISTRICT OFFICE  
13051 NORTH TELECOM PARKWAY  
TEMPLE TERRACE, FL 33637-0926

Paula S. O'Neil  
Clerk & Comptroller

Paula O'Neil  
Pat Mulieri  
CHAIRMAN OF THE BOARD OF COUNTY COMMISSIONERS

*Handwritten:*  
CPS  
6/14/10  
cd

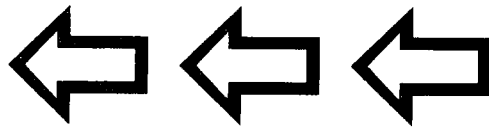
⑈446497⑈ ⑆063102152⑆0199004626966⑈

**PLEASE DO NOT FILE ANY  
DOCUMENTS AFTER**

**May 2009**

**ON THIS SIDE OF THE FILE!**

**PLEASE LOOK TO LEFT**



**WEST PASCO CLASS III  
PERMIT MOD #26254-SO/IM  
PASCO COUNTY**



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

May 5, 2009

Mr. John Power  
West Pasco County Class III  
14230 Hays Road  
Spring Hill, FL 34610

Dear Mr. Power:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III (located at 14230 Hays Road, Spring Hill) in Pasco County is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2010**. The receipt number for the registration fee you paid is 665133.

You must comply with the requirements specified in Rule 62-709.320, Florida Administrative Code (F.A.C.), in order to maintain qualification for the registration program. A summary of the operating requirements is enclosed.

If you need further information, please contact me at the above address, Mail Station 4565, telephone 850/245-8747, or email [Francine.Joyal@dep.state.fl.us](mailto:Francine.Joyal@dep.state.fl.us).

Sincerely,

A handwritten signature in cursive script that reads "Francine Joyal".

Francine Joyal  
Environmental Specialist

Enclosure

cc: Susan Pelz, Southwest District



Permitting Application - Events

Events Scheduled 3 of 90

Site #  Site Name  Type/Subtype  /  Received

Permit #  Project #  Project Name

- STOP CLOCK: Done

Event	Begin Date	Period	Due Date	Rmn	Status	End Date
Completeness Review	03/20/2008	30	04/19/2008		Incomplete	04/18/2008
RESET CLOCK	04/18/2008	1	04/19/2008		Done	04/18/2008
Awaiting Additional Information	04/18/2008	45	06/02/2008		Received	06/25/2008
Completeness Review	06/25/2008	30	07/25/2008		Incomplete	07/24/2008
RESET CLOCK	07/24/2008	1	07/25/2008		Done	07/24/2008
Awaiting Additional Information	07/24/2008	45	09/07/2008		Received	08/11/2008
Completeness Review	08/11/2008	30	09/10/2008		Complete	08/11/2008
Determine Agency Action	08/11/2008	90	11/09/2008		Issue	11/07/2008
Issue Final Permit	11/07/2008	14	11/21/2008		Issued	11/07/2008
<b>STOP CLOCK</b>	11/07/2008	1	11/08/2008		Done	11/07/2008
ISSUE PERMIT	11/07/2008	1	11/08/2008		Issued	11/07/2008

CLAREA **SWD** CRAF006A  
Logged Total \$4,000.00

**Collection Point Log Remittance**

Remittance ID **711412** Type \* **CP** Received Date \* **02/02/2007** Status **RECEIVED**  
 System Receipt **572209** PNR  Check # \* **725047** Amount \* **4,000.00**  
 SSN/FEID  Name \* **CDM**  
 First  Middle  Title  Suffix   
 Address1 **ONE CAMBRIDGE PLACE**  
 Address2 **50 HAMPSHIRE STREET**  
 City **CAMBRIDGE** ST **MA** Zip **02139**  
 Country  Short Comments **SO 26254-001**

**PAYMENT(S)**

Payment ID	CL Area	Code/Description	Payment Amount	Reference#	Appl	Fund *	Status
793322	SWD	002246 SOLID WASTE-OPE	\$4,000.00		PA	PFTF	COMPLETE

COMMIT FREQUENTLY \$4,000.00 Payment Total

**SITE Permit**

Site Name **PASCO CO. WEST PASCO CLASS III LF (LF3)** Site # **8026254**  
 County **PASCO** Comments  RPAs  # Cases

**Project**

Permit #  -  -  Project # **001** Received **02/02/2007** CRA # **276204**  
 Permit Office **SWD (DISTRICT)** Agency Action **Pending**  
 Project Name **WEST PASCO CLASS III LF** Desc   
 Type/Sub/Des **SO / T3 SANI. LANDFILL CLASS III** COE #   
 Logged **02/05/2007** Issued  Expires  OGC   
 Fee **4000.00** Fee Recd **4000.00** Dele  Override **NONE**

**Related Party**

Role **APPLICANT** Begin **02/05/2007** End   
 Name **POWER, JOHN** Company **PASCO COUNTY**  
 Address **14320 HAYS ROAD**  
 City **SPRING HILL** State **FL** Zip **34610** -  Country   
 Phone **727-856-0119** Fax  Email

**Processors**

Processor **EVANS R**  Active **02/05/2007** Inactive  Events

Steve M.

Southwest District  
Permitting Application

New Site

Site Name:	
Site ID:	
County:	
Type/Subcode:	
Fee submitted:	( ) correct ( ) incorrect
Total Fee Required \$	Need \$ Refund \$

Existing Site

Site ID:	26254 <sup>001</sup>	
Project Name:	West Pasco Class III Landfill	
Type/Subcode:	SO/T3	
Fee submitted:	(x) correct ( ) incorrect	\$4,000
Total Fee Required \$	Need \$	Refund \$

Applicant Information

Name:	John Power	
Role:	Applicant	
Company:	Pasco County Utilities	
Address:	7530 Little Road	
City:	New Port Richey, Florida	Zip Code: 34654
Phone:	727-856-0119	

Fee verified by: R. Evans

Application Assigned To: Evans Date: 2/5/07



# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

CERTIFIED MAIL NO. 7007 2680 0000 5032 6330  
RETURN RECEIPT REQUESTED

November 7, 2008

## NOTICE OF PERMIT

Mr. John Power, Solid Waste Manager  
Pasco County Board of County Commissioners  
7530 Little Road  
New Port Richey, Florida 34654

RE: West Pasco Class III Landfill  
Permit Number 26254-001-SO/T3, Pasco County  
WACS No: SWD/51/45920

Dear Mr. Power:

Enclosed is permit number **26254-001-SO/T3**, issued pursuant to Section(s) 403.087(1), Florida Statutes.

A person whose substantial interests are affected by this transfer of permits may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Blvd., MS#35, Tallahassee, 32399-3000, within fourteen (14) days of receipt of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within fourteen (14) days shall constitute a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes.

The petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of Department's action, or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action;

- (f) A statement of which rules or statutes petitioner contends warrant reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C. Mediation is not available in this proceeding.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rules 62-110 and 28-106, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Blvd., MS#35, Tallahassee, 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

PERMITTEE: Pasco County Board of County Commissioners  
Mr. John Power, Solid Waste Manager

PERMIT NO: 26254-001-SO/T3  
West Pasco Class III Landfill

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

*Mike Downer for*

Deborah A. Getzoff  
District Director  
Southwest District

DAG/sgm  
Enclosure

Copies furnished to:

Pasco County Elected Officials Notification  
Aamod Sonawane, P.E., CDM, [sonawaneas@cdm.com](mailto:sonawaneas@cdm.com)  
Fred Wick, FDEP Tallahassee (e-mail)  
John Morris, P.G., FDEP Tampa (e-mail)  
Ronni Moore, OGC Tallahassee (e-mail)  
Susan Pelz, P.E., FDEP Tampa (e-mail)  
Permit Notebook

CERTIFICATE OF SERVICE

This undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on Nov 7, 2008 to the listed persons.  
(date stamp)

Other copies were mailed or transmitted electronically to the listed persons.

FILING AND ACKNOWLEDGMENT  
FILED, on this date, pursuant to Section 120.52(10), Florida Statutes, with the designated Department, Clerk, receipt of which is hereby acknowledged.

*Ann Brathy*  
Clerk

11/7/2008  
Date



# Florida Department of Environmental Protection

Southwest District Office  
 13051 North Telecom Parkway  
 Temple Terrace, Florida 33637-0926

Charlie Crist  
 Governor

Jeff Kottkamp  
 Lt. Governor

Michael W. Sole  
 Secretary

**PERMITTEE**

Pasco County Board of  
 County Commissioners  
 7530 Little Road  
 New Port Richey, Florida 34654  
 c/o Mr. John Power, SW Manager

**PERMIT/CERTIFICATION**

WACS Facility ID No: SWD/51/45920  
 Permit No: **26254-001-SO/T3**  
 Date of Issue: **11/7/2008**  
 Expiration Date: **11/7/2013**  
 County: Pasco  
 Lat/Long: 28°22'22"N  
 82°34'06"W  
 Sec/Town/Rge: 25&26/24S/17E  
 Project: West Pasco Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522 and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or referenced in Specific Condition #A.2. and made a part hereof and specifically described as follows:

To operate, monitor, and maintain a Class III landfill (approximately 14.0 acres), referred to as the West Pasco Class III Landfill, and related ancillary facilities, subject to the specific and general conditions attached, located at 14230 Hays Road, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of a:

1. Class III Landfill
2. Leachate holding tanks system
3. Household Hazardous Waste Collection and Recycling Center (HHWC)

**Replaces Permit No.: 26255-001-SO**

**General Information**

Disposal acres	Approx. 14 acres (Cells 1-4 - 3.5 acres each)
Lowest bottom elevation of Cells 1-4 (south end of Cell 1)	+45.0 ft. NGVD [ref. SC#A.2.b., Sheet C-6]
Top elevation at final buildout	Max. +79.26 ft NGVD [ref. SC#A.2.a.(3), Sheet 12]
Side slopes max.	4H:1V [ref. SC#A.2.a.(3), Sheet 12]
Liner system (bottom to top)	In-situ subgrade, 60 mil HDPE geomembrane, 2-foot drainage sand [ref. SC#A.2.b., Sheet C-10, Detail D]
LCS drainage system	Two 8-inch PE perforated LCS piping per cell, draining north to south within 2-foot drainage/protective sand layer [ref. SC#A.2.b., Sheet C-10, Detail D]  Cell 1 & 2 perforated LCS pipes drain to non-perforated 10-inch header pipe and leachate manhole for each cell. Cell 1 & 2 manholes drain to Leachate Tank No. 1. Cells 3 & 4 drain similarly to Leachate No. 2. Leachate from Tanks 1 & 2 drains to Shady Hills WWTP [ref. SC#A.2.b., Sheet C-6 and SC#A.2.a.(1), Figure No. 4]
Design life	45-55 years
Leachate storage tanks	Two below ground concrete leachate holding tanks, no secondary containment: nominal diameter = 10 ft diameter, approx. 11-12 ft deep. [ref. SC#A.2.b., Sheet C-8, Detail A]

This permit contains compliance items summarized in **Attachment 1** that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - (a) Have access to and copy any records that must be kept under conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.



**GENERAL CONDITIONS:**

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (a) Determination of Best Available Control Technology (BACT)
- (b) Determination of Prevention of Significant Deterioration (PSD)
- (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
- (d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

**GENERAL CONDITIONS:**

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware, the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

1. **Facility Designation.** This landfill shall be classified as a **Class III landfill and related facilities**, and shall be operated, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 62-330, 62-520, 62-522, 62-550, and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.
2. **Permit Application Documentation.** This permit is valid for operation of Cells 1-4 of the Class III landfill, the leachate holding tank system, and related ancillary facilities, in accordance with all applicable requirements of Department rules, the conditions of this permit, and in accordance with the reports, plans and information submitted by CDM, unless otherwise noted, as follows:
  - a. Operation Permit Renewal Application for West Pasco Class III Landfill, (one 3-ring binder & one spiral bound document) dated and received February 2, 2007, prepared by CDM, as revised, replaced or amended (information inserted into originals), dated and received April 19, 2007, dated October 5, 2007 (received October 8, 2007), dated and received December 28, 2007, dated March 20, 2008 (received March 21, 2008), dated and received June 25, 2008, and dated and received August 11, 2008. This information includes, but is not limited to:
    - 1) Operations Plan, dated June 2008 [Section 3, Attachment 1];
    - 2) Groundwater Monitoring Plan, March 20, 2008 (revised August 11, 2008) [spiral bound document]; and
    - 3) Plan Sheet titled, Sheet #12 "Final Closeout Cross Sections" signed and sealed January 21, 1988, revised and received June 25, 2008.
  - b. Plan Set titled, West Pasco County Class III Landfill Construction Drawings (Record Drawings May 10, 1991) (14 sheets), received July 7, 1995.
3. **Permit Modifications.**
  - a. Any construction or operation not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Any significant changes to the operations at the facility shall require a permit modification. Permits shall be modified in accordance with the requirements of Rule 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.
4. **Permit Renewal.** No later than **May 1, 2013**, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by Rule 62-701.320(10), F.A.C. Operation permit renewal shall include, but not be limited to, an updated operations plan, water quality monitoring plan, site plans for sequence of filling with cross-sections of lifts, and revised (not inflation-adjusted) financial assurance cost estimates.
5. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

6. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

7. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

8. **Regulations.** Chapter 62-701, F.A.C., effective May 27, 2001, is incorporated into this permit by reference. In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

9. **Prohibitions.**

a. The prohibitions of Rule 62-701.300, F.A.C., shall not be violated by the activities at this facility.

b. In the event that surface depressions which may be indicative of sinkhole activity, or subsurface instability, are discovered onsite, or within 500 feet of the site, the Department shall be notified in accordance with Specific Condition #C.6.b, below. Written notification shall be submitted **within 7 days of discovery**. The written notification shall include a description of the depression, the location and size of the depression shown on an appropriate plan sheet, and a corrective action plan which describes the actions necessary to prevent the unimpeded discharge of waste or leachate into ground or surface water.

c. Waste Burning. Open burning of solid waste is prohibited except in accordance with Rule 62-701.300(3) and Chapter 62-256, F.A.C. All fires which require longer than one (1) hour to extinguish must be promptly reported to the Department in accordance with Specific Condition #C.6.b., below.

**SPECIFIC CONDITIONS: PART B - Construction Requirements**

1. **Construction.** All significant construction activities shall be approved by the Department prior to initiating work, unless specifically authorized otherwise.

2. **Certification of Construction Completion.** All information required by this Specific Condition shall be signed and sealed by a registered professional engineer or land surveyor as appropriate.

a. **Within sixty (60) days** after any specified construction has been completed or as otherwise specified in this permit, the following activities shall be completed and submitted by the permittee to the Department. Operation of the constructed systems, structures, equipment, etc., shall not be initiated prior to Department approval of the information required by this Specific Condition.

1) The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer responsible for the construction to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.

2) The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include as-built plans details and elevations (survey) as appropriate.

3) The owner or operator shall submit a narrative indicating all changes in plans and the cause of the deviations, and certification by the design engineer to the Department.

4) The engineer of record shall provide a report to verify conformance with the project specifications. The report including all related testing results shall be submitted to the Department along with the completion of construction documents.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

**1. Facility Operation Requirements.**

a. The permittee shall operate this facility in accordance with Rule 62-701.500, F.A.C., the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], Operations Plan [ref. SC#A.2.a(1)], and any other applicable requirements.

1) Operation of the Waste Tire Facility shall be in accordance with Chapters 62-701 and 62-711, F.A.C., and Operation Permit 126935-002-WT/02 (including modifications, if any), or its successors.

2) Operation of the Yard Trash Processing Facility shall be in accordance with Chapter 62-709.320, F.A.C., and Yard Trash Processing Facility Registration No. 051-01-YT, or its successors.

3) The Household Hazardous Waste Collection/Storage Facility (HHWCC) shall be operated in accordance with the HHWCC Operating Plan and Contingency Plan, submitted by Pasco County on May 22, 1995.

b. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner and leachate management systems at any time during the construction or operation of this facility.

c. Waste shall not be disposed (unloaded, spread, or compacted) during non-daylight hours, unless sufficient lighting is provided to adequately observe the materials and remove unacceptable wastes.

d. Site Inspections.

1) The owner or operator shall inspect the site for erosion and settlement (low spots and improperly graded areas) **weekly** (twice per week during the wet seasons). Erosion and settlement shall be repaired in accordance with Specific Condition #C.6.

2) The owner or operator shall inspect the landfill facility for the presence of objectionable odors at the property boundary **daily on operating days**. In the event that objectionable odors are detected at the property boundary, the owner or operator shall abate the odors in accordance with the procedures in Section 9.B. of the Operations Plan.

3) The owner or operator shall inspect the area of the facility outside the working face area of the facility for litter **daily**. [ref. Op. Plan, Sec. 7]. In the event that the litter control program is ineffective, the operator shall notify the Department, and implement additional litter control measures **within 30 days**.

e. In the event of fire, hurricane or other severe natural event, inoperable equipment, lack of qualified personnel, or stormwater control problems which allow prolonged (**greater than 72 hours**) contact of ponded water with waste, the facility shall cease disposing waste in the affected area until appropriate drainage has been restored.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.1., cont'd)

f. Equipment. In the event of equipment breakdown or scheduled maintenance, the owner or operator shall ensure that sufficient reserve equipment is operating at the site within 24 hours of the occurrence. In the event that sufficient reserve equipment is not obtained within 24 hours, the permittee shall notify the Department in accordance with Specific Condition #C.6.b., below and provide a schedule for corrective actions.

g. Fires. In the event of a fire which requires offsite assistance from the local fire protection authorities, the Department shall be notified pursuant to Specific Condition C.6.b. below, and the owner or operator shall cease disposal of waste in the affected area until the fire has been completely extinguished, or as otherwise specified by the Department [ref. Op. Plan, Sec. 11.e.]. Trenches cut into the waste shall not be used to extinguish fires without prior Department approval.

h. Waste streams generated by the operation or maintenance of the facility and equipment shall be managed such that any residual contaminants (such as gasoline, oil, paint, antifreeze, PCBs, etc.) shall be stored such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the ground or into surface or groundwaters.

**2. Operating Personnel.**

a. A trained operator (trained in accordance with the Section 1 of the Operations Plan) shall be on duty at the facility whenever the facility is operating and shall be responsible for operating and maintaining the facility in an orderly, safe, and sanitary manner.

b. A sufficient number of trained spotters (at least one trained spotter) shall be at the tipping areas at all times that waste is being accepted at the facility to inspect each load of waste as it is unloaded and spread, and shall remove prohibited materials prior to processing [ref. Op. Plan, Sec. 2.c.]. Training of spotters shall be in accordance with the Section 1 of the Operations Plan.

c. A sufficient number of trained personnel shall be available to adequately operate the facility. In the event that a trained operator or spotter is not available at the site, the facility shall be closed and shall not accept debris. In the event that unacceptable wastes are not adequately removed from the waste prior to disposal, additional trained spotters shall be required.

d. The permittee shall notify the Department in writing of a change of the County's primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

3. **Control of Access.** Access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C. [ref. Op. Plan, Sec. 5]. Adequate access to the working face shall be provided for all weather conditions while the facility is receiving waste for disposal.
  
4. **Monitoring of Waste.**
  - a. Wastes shall be monitored as required by Rule 62-701.500(6), F.A.C., including a load checking program and associated activities. The owner or operator shall conduct three random load checks per week at the active working face [ref. Op. Plan, Sec. 6]. Documentation of the three random load checks, including descriptions (type and quantity) of unacceptable wastes discovered, shall be maintained on-site, and copies provided to the Department upon request [ref. SC#D.3.b(3)].
  
  - b. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous wastes are wastes listed in 40 CFR 261 Subpart D as hazardous or are wastes characterized in 40 CFR 261 Subpart C as hazardous. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with Rules 62-701.300(4) and 62-701.500(6)(b), F.A.C. In the event that hazardous wastes are discovered, the Department shall be notified in accordance with Specific Condition #C.6.b. and the waste shall be managed in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan.
  
5. **Control of Nuisance Conditions.**
  - a. The owner or operator shall control odors, vectors (mosquitoes, other insects, rodents), and fugitive particulates (dust, smoke) arising from the operation to protect the public health and welfare. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance.
  
  - b. In the event that the odor control measures performed at the facility, do not sufficiently abate objectionable odors offsite, **within sixty (60) days** of initial detection, the owner or operator shall submit an odor abatement plan to the Department for approval. The odor abatement plan shall include at a minimum, a description of the proposed corrective actions and a schedule for implementation.
  
6. **Facility Maintenance and Repair.**
  - a. The site shall be properly maintained including maintenance of access roads to disposal areas, equipment, stormwater and leachate management systems, leachate holding tanks, cover systems and berms, gas monitoring system, and groundwater monitoring system. Erosion and ponded water in disposal areas shall be prevented. Erosion in the stormwater management system shall be minimized.



**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.6., cont'd)

- b. In the event of damage to any portion of the landfill site facilities, unauthorized leachate discharge, failure of any portion of the landfill systems, damaged or dry groundwater monitoring wells, damage to the liner or leachate collection, removal or treatment systems, fire, explosion, the development of sinkhole(s) or other subsurface instability at the site, landfill gas exceedances in onsite structures, etc., the permittee shall **immediately (within 24 hours)** notify the Department explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written, detailed notification shall be submitted to the Department within seven (7) days following the occurrence.
- c. In the event that any portion of the groundwater monitoring system is damaged or unable to be sampled, corrective actions shall be completed **within sixty (60) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department. Corrective actions which include relocation or installation of new groundwater monitoring wells shall be in accordance with Specific Condition #E.5., or as otherwise approved by the Department.
- d. In the event that the stormwater or leachate management systems or liner system is damaged or is not operating effectively, corrective actions shall be implemented **within thirty (30) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department.
- e. Intermediately covered areas, or areas which discharge to the stormwater management system, which exhibit significant erosion shall be repaired as specified below:
- 1) **Within 7 days** if the soil cover materials have eroded such that greater than 50% of the soil in that location has been eroded, or
  - 2) **By the end of the next working day** if waste or liner is exposed.
- f. In the event that the intermediately covered side slopes exhibit chronic, "significant" erosion as defined above, a corrective action plan shall be submitted to the Department **within thirty (30) days** of written notification and request from the Department and corrective actions shall be implemented in accordance with the Department approved corrective action plan.
- g. Areas which have received final cover, and which exhibit significant erosion as defined above, shall be repaired as specified in Specific Condition #C.6.e., above.
- h. Settlement. Areas which exhibit settlement (low spots and improperly graded areas) that may cause ponding of water shall be repaired (additional soil placed, regraded, seeded and/or sodded) **within seven (7) days**.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

**7. Stormwater System Management.**

a. The site shall have a surface water management system designed, constructed, operated, and maintained to prevent surface water from running on to waste filled areas and the mixing of stormwater with leachate, and a stormwater runoff control system designed, constructed, operated, and maintained to collect and control stormwater to meet the requirements of Chapter 62-330, F.A.C., and the requirements for management and storage of surface water in accordance with Rule 62-701.500(10), F.A.C., to meet applicable standards of Chapters 62-3, 62-302, and 62-330, F.A.C. All stormwater conveyances shall be inspected monthly and after significant (greater than 2") rainfall events to verify adequate performance. Conveyances not performing adequately shall be repaired in accordance with the procedures specified in the Operations Plan. Documentation of all inspections and repairs shall be kept on file at the facility.

**8. Leachate Management.**

a. Leachate shall be managed in accordance with the requirements of Rule 62-701.500(8), F.A.C., the information in Section 2.j and Section 8 of the Operations Plan, and other applicable Department rules.

b. Leachate, which has accumulated in low areas within the disposal area shall be removed from the disposal area at least **daily**.

**c. Leachate Disposal.**

1) Leachate shall be pumped offsite for disposal at an appropriately permitted wastewater treatment facility (WWTP). No later than **thirty (30) days** prior to the expiration of any contracts or agreements for the disposal of leachate at wastewater treatment facilities, the permittee shall provide a copy of the contract renewal or the issuance of a new contract for leachate disposal.

2) In the event that the primary leachate disposal facility becomes unable or unwilling to accept leachate for disposal, **within three (3) days** of the cessation of leachate acceptance by the WWTP, the landfill owner or operator shall notify the Department and shall explain the contingency measures which will be implemented. The contingency measures shall be implemented **within seven (7) days** of the cessation of leachate acceptance at the WWTP, or in accordance with an alternate schedule approved by the Department.

**d. Leachate Quantities.**

1) Leachate quantities shall be measured and recorded in accordance with the procedures specified in Section 8 of the Operations Plan.

2) A rain gauge located on-site shall be used to compare precipitation with leachate generation. Rainfall data, in excess of one-tenth of an inch, shall be recorded by landfill personnel on a daily basis [ref. Op. Plan, Sec. 8].

3) Leachate generation reports shall be compiled monthly and submitted to the Department quarterly or more frequently if requested, by **January 15th, April 15th, July 15th and October 15th** each year. Leachate generation reports shall include precipitation amounts greater than one tenth of an inch, the number of open, intermediate and closed acres, and the quantities of leachate collected, stored, and hauled off-site to a wastewater treatment facility.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.8., cont'd)

e. Leachate Collection System Inspections/Maintenance.

1) Each manhole and leachate holding tank and related sensors and controller mechanisms shall be inspected on a monthly basis [ref. Op. Plan, Sec. 8]. Pumps showing reduced performance shall be removed for maintenance and repair, and a replacement pump installed if required for continued compliance.

2) **No later than February 1, 2013**, the entire leachate collection and removal system shall be water pressure cleaned and/or video inspected to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office **no later than May 1, 2013** to demonstrate adequate performance.

f. Leachate Storage Tanks.

1) In the event of failure of the tank overflow protection system (i.e. signal alarms and pump shut-off failure), the back-up contingency plan procedures specified in Section 8 of the Operations Plan shall be implemented.

9. **Special Wastes Handling Requirements.**

a. The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan; Rules 62-701.300(8) and 62-701.520, F.A.C.; and any other applicable Department rules, to protect the public safety, health and welfare. The special wastes shall be stored and managed such that discharge of contaminants to the environment is prevented. The special wastes shall be handled on a first-in, first-out basis. The special wastes shall be stored in a location which does not interfere with the sequence of filling.

b. Scrap metal. Scrap metal separated from the waste stream for recycling shall be stored within the designated metals storage area shown on Figure 1 of the Operations Plan and managed as described in the Operations Plan [ref. Op. Plan, Sec. 2.c.]. Scrap metals which may include residual contaminants such as gasoline, oil, paint, antifreeze, PCBs, etc., shall be stored and managed such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the soil or into surface or groundwaters.

c. White Goods. White goods shall be rejected and reloaded or kept undamaged and placed upright adjacent to the designated metals storage area shown on Figure 1 of the Operations Plan. White goods, which may contain chlorofluorocarbons (CFCs, such as Freon), shall be stored and managed in a manner such that the CFCs are not discharged to the atmosphere. White goods which have had the refrigerant appropriately removed shall be clearly marked and may be stored in the scrap metal storage area.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.9., cont'd)

- d. Waste Tires. Tires inadvertently accepted at the facility and subsequently removed from waste stream shall be managed at the on-site waste tire processing facility in accordance with Chapters 62-701 and 62-711, F.A.C., and Waste Tire Collection Center Permit No. 126935-002-WT/02 (including modifications, if any), or its successors.
  - e. Other Special Wastes. Small items of special wastes (e.g. used oil, lead acid batteries, mercury-containing devices, etc) removed from the waste stream shall be sent to the HHWCC and managed in the designated areas for these wastes in accordance with the HHWCC Operating Plan and Contingency Plan [ref. SC #C.1.a.(3)].
  - f. Contaminated soil, excavated waste. Neither soils that are reasonably believed to be contaminated nor wastes excavated from the redevelopment of former disposal sites/areas, shall be disposed at this site. In order to ensure that these materials are not inadvertently received at the site, for all loads with large quantities of soil, **prior to the acceptance of the load**, the permittee shall request the following information for each load: name, address and phone number of generator (i.e., jobsite where material is generated), a certification from the generator that the material is not known to be contaminated and/or did not originate from a former waste disposal area.
  - g. Shredded/Processed Waste. Wastes that are not clearly identifiable by visual observation as Class III waste are prohibited from being accepted at this facility. Waste that has originated from excavation or redevelopment of old landfills or unpermitted dumps is considered Class I waste and is not authorized to be managed at this facility.
10. **Waste Handling Requirements.**
- a. A sufficient number of spotters shall be utilized at the facility for removing unacceptable wastes. In the event that unacceptable wastes are not adequately removed due to inadequate personnel, additional trained spotters shall be required.
  - b. A trained spotter shall be positioned at the working face to inspect each load as it is being received, unloaded and as it is spread and compacted [ref. Op. Plan, Sec. 2.c.].
  - c. Unauthorized wastes shall be removed from the waste and stored in a 40 CY roll-off containers located immediately adjacent to (within 200 feet) the active face. The unacceptable waste container shall be removed for disposal within at the end of each working day or when full, whichever occurs first. [ref. Op. Plan, Secs. 2.c.].
  - d. Containers which store unauthorized wastes shall be covered/tarped at the end of each business day, when full, and in the event of inclement weather.
  - e. Unauthorized wastes shall be removed from the incoming loads immediately, and no other loads shall be dumped in the immediate vicinity until unauthorized materials have been removed and stored in the container provided for unacceptable wastes.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

11. **Waste Covering Requirements.** All solid waste disposed of in the Class III landfill shall be covered as required by Rule 62-701.500(7), F.A.C.

a. Initial Cover. Initial cover shall be applied and maintained at the Class III landfill in accordance with Rule 62-701.500(7)(e), F.A.C., so as to protect the public health and welfare.

1) All solid waste disposed of in the Class III disposal area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department (in writing), at the end of each working week [ref. Op. Plan, Sec. 7].

b. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion [ref. Op. Plan, Sec. 7].

c. Top gradients of intermediate cover shall be designed to prevent ponding or low spots and minimize erosion. **Daily**, the owner or operator shall operate the facility, maintain grades, or utilize berms and swales, to prevent ponded water within the disposal areas.

12. **Working Face.**

a. The permittee shall maintain a working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously that can be adequately spotted by the number of trained spotters at the facility. [ref. Op. Plan, Sec. 7].

b. Interceptor berms shall be maintained around the working area to prevent leachate runoff from the working face from entering the stormwater management system and to minimize the formation of leachate [ref. Op. Plan, Sec. 7].

13. **Method and Sequence of Filling.**

a. The method and sequence of filling shall be in accordance with the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], and as described in the Operations Plan [ref. Op. Plan, Secs. 2.f., 2.g. & 7.], or as otherwise approved in writing by the Department.

b. Waste shall be spread in 2 feet thick layers and compacted before applying the next layer of waste and in accordance with the method, procedures, and sequence described in the facility Operations Plan [ref. Op. Plan, Sec. 2.g.]. Cells shall be filled in approximate 10 foot lifts. Slopes shall be maintained in accordance with the Permit Drawings. The working face shall be no greater (steeper) than **3H:1V** [ref. Op. Plan, Secs. 2.g. & 7.].

c. The permittee shall maintain and clearly stake/mark the location of the edge of the liner and maintain the locations as the landfill increases in elevation to prevent waste disposal and leachate runoff outside the geomembrane liner. The permittee shall maintain a minimum disposal setback of 5 feet from the inside top edge of the bottom liner system.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.13., cont'd)

d. Initial Waste Placement.

1) No disposal vehicles shall be operated directly on the liner protective layer. During the initial placement of waste in each cell, soil platforms or similar protective measures shall be placed adjacent to the working face to keep vehicles off the liner protective cover.

2) The first lift of waste shall be a minimum of four(4) feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system and shall be conducted in accordance with the procedures in Section 7 of the Operations Plan. At least 7 days prior to the initiation of waste placement in each cell, the Department shall be notified in order to allow Department observation of the select waste type and placement.

e. The owner or operator shall conduct a topographic survey of, and shall estimate the remaining disposal capacity and site life of each disposal area as required by Rule 62-701.500(13)(c), F.A.C. **Annually, no later than April 15<sup>th</sup> each year**, a copy of this survey, supporting capacity calculations, signed and sealed by a registered professional engineer and/or licensed professional land surveyor as appropriate shall be submitted to the Department. The survey shall demonstrate that the above-grade sideslopes are no greater than the design slopes, that the top elevation does not exceed design elevation, and that all other design features and related improvements conform to the Department-approved permit drawings. The capacity estimate shall include updated design lifetime calculations.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

1. **Report Submittals.**

a. Unless specified otherwise in this permit, all submittals, notifications, or requests for permit modification shall be provided to the Southwest District Solid Waste Section, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

2. **Operation Plan and Operating Record.**

a. Each landfill owner or operator shall have an operational plan which meets the requirements of Rule 62-701.500(2), F.A.C. A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections [ref. Op.Plan, Sec. L.3]. Operating records as required by Rule 62-701.500(3), F.A.C., are part of the operations plan, and shall also be maintained at the site.

b. Proposed changes to the current Department-approved **Operations Plan** shall be submitted in writing to the Department for review and may require a permit modification in accordance with Specific Condition #A.3. The **Operations Plan** shall be updated as operations change and for renewal of the permit. Revised pages shall be provided as replacement pages with revisions noted (deletions may be struckthrough (~~struckthrough~~) and additions may be shaded (~~shaded~~) or a similar method may be used) and each page numbered with the document title and date of revision.

3. **Waste Records.**

a. Waste records shall be maintained as required by Rule 62-701.500(4), F.A.C. The owner or operator of the facility shall weigh each load of waste as it is received (with scales at the facility) and record, in tons per day, the amount of waste debris and material received. This information shall be compiled **monthly** and submitted to the Department (Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, M.S. 4565, Tallahassee, Florida 32399-2400) **quarterly, by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup> of each year** [ref. Op.Plan, Sec. L.4]. Waste shall not be accepted for disposal at the landfill unless weight scales are available at the facility and are in proper working condition.

b. The following reports, documents and other information shall be kept at the facility for reference, and copies shall be provided to the Department upon request:

- 1) Waste quantity reports [ref. SC #D.3.a.].
- 2) A log of the facility operator's inspections, and any subsequent corrective actions;
- 3) Load checking records;
- 4) Operator and spotter training certificates and other documentation; and
- 5) Log of odor complaints and corrective action.
- 6) Records as described in Rule 62-701.500(13). These records shall include all certifications for construction completion;
- 7) Documentation of incidents reported pursuant to Specific Condition C.6.;
- 8) Water quality and gas monitoring reports.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

4. **Financial Assurance.** The permittee shall provide adequate financial assurance for this facility and related appurtenances in accordance with Rule 62-701.630, F.A.C.

a. All costs for closure shall be adjusted and submitted for approval **annually, by September 1st each year** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

b. Proof that the financial mechanism has been adequately funded shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.



**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

**1. Water Quality Monitoring Quality Assurance.**

a. All field work done in connection with the facility's Water Quality Monitoring Plan regarding the collection of ground water, surface water and leachate samples shall be conducted in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001/01 dated February 1, 2004 [or as replaced by successor SOPs], as referenced in Rule 62-160.210(1), F.A.C. All laboratory analyses done in connection with the facility's Water Quality Monitoring Plan shall be conducted by firms that hold certificates from the Department of Health Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C., as referenced in Rule 62-160.300(1), 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 the permit and shall be implemented by all persons performing sample collection or analysis related to this permit. 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.

b. The field testing, sample collection and preservation and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

**2. Zone of Discharge.**

a. The zone of discharge for the West Pasco Class III landfill shall extend horizontally 100 feet from the limits of the landfill liner (all active, inactive and closed Class III waste disposal areas), or to the property boundary, whichever is less, and shall extend vertically to the first semi-confining unit within the upper Floridan aquifer.

b. The permittee shall ensure that the water quality standards for Class G-II ground water will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the ground water minimum criteria referenced in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the disposal areas.

**3. Ground Water Monitor Well Locations.** The ground water monitoring system locations for the West Pasco Class III landfill footprint (Cells 1 through 4) are designed and shall be constructed in accordance with the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM, dated March 2008, revised August 2008 [ref. SC#A.2.a.(2)]. The ground water monitor wells and piezometers are located on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (**attached**), as follow:

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

(Specific Condition #E.3., continued)

WACS

Testsite	Scheduling	Notes	Aquifer	Designation	Location
Well #	ID #				
2MW-7	2343	A, X	Surficial	Background	See Figure 3-1
4MW-7	2340	A, X	Floridan	Background	↓
4MW-21	23065	B, Y	Floridan	Detection	↓
4MW-22	23066	B, Y	Floridan	Detection	↓
4MW-23	23067	C, Y	Floridan	Detection	↓
2MW-3A	19671	A, X	Surficial	Piezometer	See Figure 3-1
4MW-3A	19670	A, X	Floridan	Piezometer	↓
2MW-8	2344	A, X	Surficial	Piezometer	↓
4MW-8	2341	A, X	Floridan	Piezometer	↓
2MW-9	2345	A, X	Surficial	Piezometer	↓
4MW-9	2342	A, X	Floridan	Piezometer	↓
2MW-10	2346	A, X	Surficial	Piezometer	↓

Proposed monitor well 4MW-21 shall be constructed in accordance with the details provided in Figure 3-6 ("Proposed Well Construction at Floridan Well 4MW-21"), received March 21, 2008, and proposed monitor wells 4MW-22 and 4MW-23 shall be constructed in accordance with the details provided in Figure 3-7 ("Proposed Well Construction at Floridan Wells 4MW-22 and 4MW-23"), received March 21, 2008, as referenced in Section 3.1.3 of the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM [ref. SC#A.2.a.(2)].

A = existing monitor well/piezometer

B = proposed monitor wells to be installed **within 30 days of issuance of permit #26254-001-SO**

C = proposed monitor well to be installed **at least 30 days prior to initiation of debris disposal in Cell 3 or Cell 4**

X = construction details and results of initial sampling event previously provided

Y = documentation of well construction shall be submitted **within 30 days of installation** in accordance with Specific Condition #E.5.b., and #E.5.d.; an initial sampling event shall be conducted **within 7 days of well installation and development** for the parameters listed in Specific Condition #E.4.b.

All monitor wells and piezometers are to be clearly labeled and easily visible at all times. The permittee should keep all monitor wells and piezometers locked to minimize unauthorized access.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

4. **Ground Water Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be reported at or below the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with the Class G-II ground water standards referenced in Chapter 62-520.420, F.A.C., and with the ground water minimum criteria referenced in Chapter 62-520.400, F.A.C. Compliance with ground water standards and minimum criteria shall be based on the analysis of unfiltered samples.

a. Ground water levels shall be measured at all active monitor wells and piezometers listed in Specific Condition #E.3., during all sampling events described in Specific Conditions #E.4.b., #E.4.c., and #E.8.b., to a precision of 0.01 foot. Ground water surface elevation contour maps of the surficial aquifer and of the Floridan aquifer shall be prepared for each set of water level measurements (using a consistent, nationally recognized datum) calculated for each monitor well and piezometer. The contour maps shall be submitted to the Department in the reports for the routine ground water sampling events (SC#E.10.) and the monitoring plan evaluations (SC#E.11.).

b. An "initial sampling event" shall be conducted **within 7 days of installation and development** of all new and replacement monitor wells for analysis of the following parameters:

Field Parameters

Static water levels  
before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
(by observation)

Laboratory Parameters

Total ammonia - N  
Chlorides  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix II

Iron  
Mercury  
Sodium

c. Background and detection wells 2MW-7, 4MW-7, 4MW-21 and 4MW-22 shall be sampled **semi-annually** (during the periods from January 1 to June 30, and from July 1 to December 31) for analysis of the following parameters:

Field Parameters

Static water levels  
before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
(by observation)

Laboratory Parameters

Total ammonia - N  
Chlorides  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix I

Iron  
Mercury  
Sodium

Following the completion of the "initial sampling event" at proposed well 4MW-23 in accordance with the schedule presented in Specific Condition #E.3., this new detection well shall be included in subsequent routine ground water sampling events.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

5. **Ground Water Monitor Well Construction.** The following information shall be submitted **within 90 days of installation** of all new or replacement wells or piezometers, or as stated below:

a. Prior to construction of all new or replacement wells (excluding proposed wells 4MW-21 through 4MW-23) or piezometers the permittee shall request and receive Department approval of a minor permit modification in accordance with Specific Condition #A.3.a.

b. Construction details (record drawings) for all new or replacement wells and piezometers shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (**attached**) [or as replaced by Department Form #62-701.900(30)].

c. **Within one week of well completion and development**, each new or replacement monitor well shall be sampled for the parameters listed in Specific Condition #E.4.b., to comply with the requirements of Rules 62-701.510(8)(a) and (8)(d), F.A.C.

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitor wells and piezometers (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, using a consistent, nationally recognized datum. The surveyed drawing shall include the monitor well and piezometer identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

6. **Well Abandonment.** All monitor wells and piezometers not a part of the approved Water Quality Monitoring Plan and not listed in Specific Condition #E.3., are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well/piezometer locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well/piezometer abandonment **within 30 days of abandonment**. A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

7. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's ground water quality standards or minimum criteria in any detection well, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring as described in Rule 62-701.510(7)(a), F.A.C. If monitoring parameters are detected at concentrations significantly above background water quality, and exceed the Department's ground water quality standards or minimum criteria in any compliance well, the Permittee shall submit a preventive measures plan and initiate corrective action as described in Rule 62-701.510(7)(b), F.A.C.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

8. **Surface Water Sampling.** All surface water bodies that may be affected by a contaminant release at the facility shall be monitored, except bodies of water contained completely within the property boundaries which do not discharge from the site to surface waters (Rule 62-701.510(4), F.A.C.). It is not anticipated that the existing stormwater management system will discharge from the property. However, in the event that a surface water discharge occurs from the stormwater management system, representative samples of each discharge event shall be collected for analysis of the parameters listed in Specific Condition #E.8.b. In the event that any modifications to the stormwater management system associated with future uses of the landfill result in periodic surface water discharges from the property, the Department may require the implementation of routine surface water monitoring.

a. The locations, parameters, and frequencies specified herein represent the minimum requirements for surface water monitoring. Additional samples, sampling locations, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the criteria for each parameter established in Chapter 62-302, F.A.C., to demonstrate compliance with Class III (predominantly fresh water) surface water standards. Compliance with surface water criteria will be based on analysis of unfiltered samples.

b. Surface water sampling shall be conducted at the point of discharge from the property **per discharge event** in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(4) and 62-701.510(6)(e), F.A.C. In the event that the discharge has ceased prior to being able to collect a sample, the closest location within the stormwater management system to the discharge location shall be sampled to represent that particular discharge event. The Solid Waste Section of the Department shall be notified of the occurrence of each discharge event **within 24 hours of discovery**. Surface water samples shall be analyzed for the following parameters:

<u>Field parameters</u>	<u>Laboratory parameters</u>	
Specific conductivity	Unionized ammonia	Total organic carbon (TOC)
pH	Total hardness	Total nitrogen
Dissolved oxygen	Total phosphates	Chemical oxygen demand
(COD)		
Turbidity	Chlorophyll A	Fecal coliform
Temperature	Copper	Biochemical oxygen demand
(BOD <sub>5</sub> )		
Colors and sheens	Iron	Total dissolved solids
(TDS)		
(by observation)	Mercury	Total suspended solids
(TSS)		
Nitrate	Zinc	

Those parameters listed in  
40 CFR Part 258, Appendix I

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

9. **Leachate Sampling.** Representative leachate samples (unfiltered) shall be collected from each of the locations described in Specific Condition #E.9.a., for the sampling events described in Specific Conditions #E.9.b., and #E.9.c. Leachate sampling shall be conducted in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C.

a. Representative leachate samples shall be collected from each of the leachate holding tanks at the locations shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (attached), as follow:

<u>Leachate</u> <u>Sample ID #</u>	<u>Landfill Cell</u>	<u>WACS Testsite</u> <u>ID #</u>
Tank #1	Cells #1 and #2	2507
Tank #2	Cells #3 and #4	2508

Individual leachate samples shall be collected from each of the leachate holding tanks for analysis of the parameters presented in Specific Condition #E.9.b., and #E.9.c. Leachate samples collected from Tank #1 and Tank #2 shall not be composited.

b. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

<u>Field Parameters</u>	<u>Laboratory Parameters</u>	
Specific conductivity	Total ammonia - N	Iron
pH	Bicarbonate	Mercury
Dissolved oxygen	Chlorides	Sodium
Colors & sheens (by observation)	Nitrate	
	Total dissolved solids (TDS)	
	<u>Those parameters listed in</u>	

40 CFR Part 258, Appendix II

c. If the leachate analyses indicate that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall provide notification to the Department in accordance with Specific Condition #C.6.b. In addition, the permittee shall initiate **monthly** leachate sampling at each of the locations listed in Specific Condition #E.9.a., for analysis of the parameters listed in Specific Condition #E.9.b. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

10. **Water Quality and Leachate Reporting Requirements.** The results of each ground water, surface water, and leachate sampling event conducted at the West Pasco Class III Landfill to comply with the Specific Conditions of this permit shall be included in reports that provide the following:

Electronic Data Deliverable (EDD) Portions of Report:

- An EDD on compact disk or flash drive media readable by Microsoft Windows in a format consistent with the requirements for evaluating the data and importing it into the Department databases that includes both field sampling data and laboratory data. The requirements for preparation of the EDD can be obtained on the Department's website at: <http://www.dep.state.fl.us/labs/dqa/adaptedms.htm>. The EDD shall provide the information required by Rules 62-701.510(9)(a)1 through 62-701.510(9)(a)7, F.A.C.

Hard Copy Portions of Report:

- Department Form 62-701.900(31) ["Water Quality Monitoring Certification"], certifying that the permittee has reviewed and approved the laboratory results;
- Certified laboratory report of results;
- Chain-of-custody documentation;
- Department SOP Form FD 9000-24 ["Ground Water Sampling Log"] for ground water sampling events; and,
- The information required by Rules 62-701.510(9)(a)8 through 62-701.510(9)(a)10, F.A.C.

The permittee shall submit to the Department results of analyses conducted for each sampling event conducted at the facility by the following due dates:

- a. Specific Condition #E.4.b. - results of ground water "initial sampling events" shall be submitted **within 60 days from completion of laboratory analyses;**
- b. Specific Condition #E.4.c. - results of ground water semi-annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> and July 15<sup>th</sup> of each year** for the periods July 1 to December 31, and January 1 to June 30, respectively;
- c. Specific Condition #E.7. - results of ground water verification events shall be submitted **within 60 days from completion of laboratory analyses;**
- d. Specific Condition #E.8.b. - results of surface water discharge sampling events shall be submitted **within 60 days from completion of laboratory analyses;**
- e. Specific Condition #E.9.b. - results of leachate annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> of each year** for the periods January 1 to December 31;
- f. Specific Condition #E.9.c. - results of monthly leachate sampling events shall be submitted **within 60 days from completion of laboratory analyses.**

The results shall be submitted to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

11. **Monitoring Plan Evaluation.** By November 1, 2010 and May 1, 2013, the permittee shall submit an evaluation of the water quality and leachate monitoring data. The periods of time to be covered by the evaluations are summarized below:

<u>Water Quality Monitoring Data Evaluation Due Date</u>	<u>Starting Sampling Event</u>	<u>Ending Sampling Event</u>
November 1, 2010	Second half 2006	First half 2010
May 1, 2013	Second half 2010	Second half 2012

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing facility design and operation as related to the prevention of ground water and surface water contamination. Any contamination that may exist shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C. The evaluations shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.



**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

**1. Landfill Gas - NPs and Title V Air Requirements.**

a. This solid waste permit will meet the statutory requirement to obtain an air construction permit before modifying or constructing a source of air pollution, except for those landfills that are subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. Facilities that are subject to the PSD requirements shall obtain an air construction permit from the Bureau of Air Regulation prior to beginning construction or modification pursuant to Rule 62-210.400, F.A.C.

b. The permittee shall comply with any applicable Title V air operation permit application requirements of Chapter 62-213, F.A.C., and 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Title V Permit applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill.

c. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 3900 Commonwealth Blvd., Tallahassee, FL 32399-3000, any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

**2. Gas Monitoring and Control.**

a. Landfills that receive degradable wastes shall have a gas management and control system designed to prevent explosions and fires, and to minimize off-site odors, lateral migration of gases and damage to vegetation. Landfill gas shall be monitored and controlled as required by Rules 62-701.500(9) and 62-701.530, F.A.C.

b. Landfill gas shall be monitored to demonstrate compliance with the criteria established in Rule 62-701.530(1)(a), F.A.C., (less than 25% of the lower explosive limit (LEL) for combustible gases in structures and less than 100% of the LEL for combustible gases at or beyond the property boundary).

c. The results of quarterly monitoring required by Rule 62-701.530(2)(c), F.A.C., conducted at the locations listed in Specific Condition #F.3., shall be submitted to the Department by the following dates:

<u>Measured During</u>		<u>Report Submitted By</u>
Quarter 1	(Jan - Mar)	April 15 <sup>th</sup> of each year
Quarter 2	(Apr - June)	July 15 <sup>th</sup> of each year
Quarter 3	(July - Sep)	October 15 <sup>th</sup> of each year
Quarter 4	(Oct - Dec)	January 15 <sup>th</sup> of each year

**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

3. **Gas Monitoring Locations.** Surficial aquifer monitor wells 2MW-7, 2MW-8 and 2MW-10 shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008," prepared by CDM, received March 21, 2008 (**attached**), and the adjacent scale house and operator's office structures shall be sampled at least quarterly for concentrations of combustible gases determined as a percent of the LEL calibrated to methane, as described in Rule 62-701.530(2), F.A.C. Landfill gas monitoring shall be conducted in accordance with Section 9 of the document entitled "Landfill Operations Plan For West Pasco Class III Landfill," prepared by CDM, dated October 2007, revised June 2008 [ref.SC#A.2.a(1)], at the following locations:

<u>Monitoring Locations</u>	<u>Location Description</u>
Well 2MW-7	South of Class III landfill
Well 2MW-8	West of Cell 1
Well 2MW-10	Near northwest corner of Class III landfill
Scale house	Near southwest corner of Class III landfill
Operator's office	Near southwest corner of Class III landfill

The monitor wells used as gas monitoring locations are to be clearly labeled and easily visible at all times.

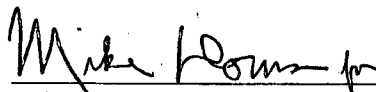
4. **Gas Remediation.** If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL calibrated to methane in structures or 100% of the LEL calibrated to methane at the property boundary, the permittee shall immediately take all necessary steps to ensure protection of human health and notify the Department. **Within 7 days** of detection, a gas remediation plan detailing the nature and extent of the problem and the proposed remedy shall be submitted to the Department for approval. The remedy shall be completed **within 60 days** of detection unless otherwise approved by the Department.

**SPECIFIC CONDITIONS: PART G - Closure and Long-Term Care Requirements**

1. **Closure Permit Requirements.** The landfill owner or operator shall submit a closure permit application to the Department, on DEP Form 62-701.900(1), for those portions of the landfill, which have reached design dimensions and grades. The permit application shall be submitted **at least 90 days prior** to the date when wastes will no longer be accepted for active portions of the landfill, as required by Rule 62-701.600(3), F.A.C., or in accordance with the conditions of an existing Department closure permit, whichever is sooner.
2. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed (shall receive final cover) within 180 days after reaching design dimensions, in accordance with Rule 62-701.500(7)(g), F.A.C. and all applicable requirements of Department rules.
3. **Long-Term Care Requirements.**
  - a. The owner or operator shall perform long-term care for the closed portions of the site in accordance with Rule 62-701.620, F.A.C., and the information submitted in the Attachment 2 of the Engineering Report.
  - b. Long-term care includes, but is not limited to, water quality, leachate and gas monitoring, maintenance of the final cover system, maintenance of the leachate collection and removal system, erosion control, and the prevention of ponding within disposal areas.
  - c. Prior to implementation, the owner or operator shall submit a plan for any proposed uses of the closed portions of the landfill to the Department for approval. This plan shall include a description of the proposed use, and evaluation of the impact on the existing landfill systems (e.g. final cover, leachate collection, bottom liner), engineering designs, calculations and plans as appropriate, etc. The proposed activity shall not be initiated without prior Department approval.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Deborah A. Getzoff  
District Director  
Southwest District

ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
A.4.	No later than May , 2012	Submit permit renewal application
A.9.b.	Within 24 hours of discovery  Within 7 days of verbal notification	Notification of sinkholes or subsurface instability  Written notification & corrective action plan
B.2.a.	Within 60 days of completion	Submit certification of construction completion, record drawings, etc.
C.5.b.	Within 60 days of initial detection	Submit odor abatement plan
C.6.b.	Within 24 hours of discovery  Within 7 days of verbal notification	Notification of: hazardous waste receipt, failure of landfill systems or equipment, damage to leachate impoundments  Written notification & corrective action plan
C.6.c.	Within 60 days of written notification	Complete corrective actions for gradient or groundwater monitoring system
C.6.d.	Within 30 days of written notification	Implement corrective actions for leachate or stormwater management system
C.6.f.	Within 30 days of written notification from the Department	Submit corrective action plan for chronic erosion of intermediate cover.
C.8.c.(1)	No later than 30 days prior to expiration of leachate disposal agreements/contracts	Submit copies of contract/agreement renewal or new contracts/agreements
C.8.d.(3) D.3.a.	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> and October 15 <sup>th</sup> each year	Submit leachate generation reports  Submit waste records to Tallahassee
C.8.e.(2)	No later than May 1, 2013	Submit report of jet cleaning and video inspection of LCS piping.
C.13.e.	Annually, by April 15 <sup>th</sup> each year	Submit Topographic survey & remaining capacity calculations
D.4.a.	Annually, by September 1 <sup>st</sup> each year	Submit revised cost estimates
D.4.b.	Annually	Submit proof of funding





ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
E.4.b.	Within 7 days of new well installation and development	Conduct initial sampling event
E.4.c.	Semi-annually	Sample background and detection wells
E.5.a.	Prior to installation of new wells	Request and received permit modification
E.5.b.	Within 90 days of installation of new wells	Provide construction details for wells
E.5.c.	Within 1 week of well development	Conduct initial sampling
E.5.d.	Within 90 days of installation of new wells	Provide survey drawing
E.6.	Within 30 days of well abandonment	Submit documentation of abandonment
E.7	Within 14 days of discovery	Notification of: monitoring parameters significantly above background water quality or exceeding ground water standards or minimum criteria
E.8.b.	Per discharge event	Sample surface water discharging from property
E.9.b.	Annually	Conduct leachate sampling
E.10.	Semi-annually, by January 15 <sup>th</sup> and July 15 <sup>th</sup> of each year  Annually, by January 15 <sup>th</sup> of each year  Within 60 days of completion of laboratory analyses	Submit ground water quality monitoring analyses (SC#E.4.c.)  Submit leachate quality monitoring analyses (SC#E.9.b.)  Submit initial ground water sampling results (SC#E.4.b.), ground water verification sampling results (SC#E.7.), surface water discharge event sampling results (SC#E.8.b.), and monthly leachate sampling events (SC#E.9.c.)
E.11.	November 1, 2010 and May 1, 2013	Submit monitoring plan evaluation reports
F.2.c.	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> , and October 15 <sup>th</sup> of each year	Submit results of routine landfill gas monitoring events
G.1.	No later than 90 days prior to the date when wastes will no longer be received	Submit Closure Permit application

C:\Documents and Settings\kopalovaihk\Desktop\Han\AutoCAD drawings\West\_pasco class III landfill\WQM

SCALE 1"=400'

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHWEST DISTRICT  
TAMPA  
MAR 21 2008

LEGEND

-  4MW2 EXISTING FLORIDIAN AQUIFER MONITOR WELL
-  2MW2 EXISTING SURFICIAL AQUIFER MONITOR WELL
-  PLUGGED & ABANDONED MONITOR WELL
-  PROPOSED FLORIDIAN AQUIFER MONITOR WELL

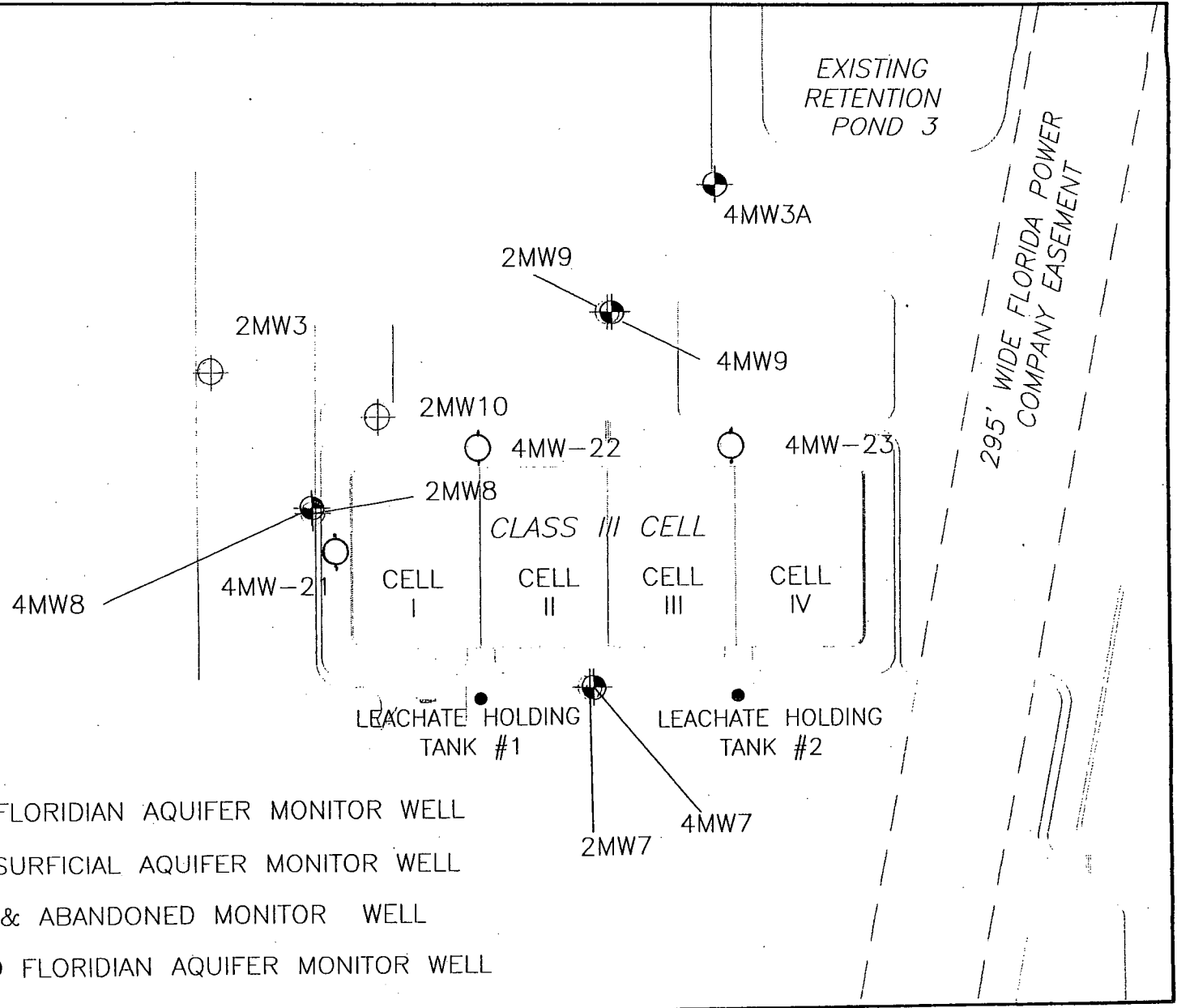


FIGURE 3-1

GROUNDWATER MONITOR WELLS AT THE WEST PASCO COUNTY CLASS III LANDFILL



DEP Form # 62-522.900(3)
Form Title <u>MONITOR WELL COMPLETION REPORT</u>
Effective Date _____
DEP Application No. _____ (Filled in by DEP)

**Florida Department of Environmental Protection**  
Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

## MONITOR WELL COMPLETION REPORT

DATE: \_\_\_\_\_

INSTALLATION NAME: \_\_\_\_\_

DEP PERMIT NUMBER: \_\_\_\_\_ GMS NUMBER: \_\_\_\_\_

WELL NUMBER: \_\_\_\_\_ WELL NAME: \_\_\_\_\_

DESIGNATION: Background \_\_\_\_\_ Immediate \_\_\_\_\_ Compliance \_\_\_\_\_

LATITUDE/LONGITUDE: \_\_\_\_\_

AQUIFER MONITORED: \_\_\_\_\_

INSTALLATION METHOD: \_\_\_\_\_

INSTALLED BY: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_ (bls) DEPTH OF SCREEN: \_\_\_\_\_ (bls)

SCREEN LENGTH: \_\_\_\_\_ SCREEN SLOT SIZE: \_\_\_\_\_ SCREEN TYPE: \_\_\_\_\_

CASING DIAMETER: \_\_\_\_\_ CASING TYPE: \_\_\_\_\_

LENGTH OF CASING: \_\_\_\_\_ FILTER PACK MATERIAL: \_\_\_\_\_

TOP OF CASING ELEVATION (MSL): \_\_\_\_\_

GROUND SURFACE ELEVATION (MSL): \_\_\_\_\_

COMPLETION DATE: \_\_\_\_\_

DESCRIBE WELL DEVELOPMENT: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

POST DEVELOPMENT WATER LEVER ELEVATION (MSL): \_\_\_\_\_

DATE AND TIME MEASURED: \_\_\_\_\_

REMARKS: (soils information, stratigraphy, etc.): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REPORT PREPARED BY: \_\_\_\_\_  
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

(bls)= Below Land Surface

**Brantley, Anna**

---

**From:** Brantley, Anna  
**Sent:** Friday, November 07, 2008 7:46 AM  
**To:** Wick, Fred; Hornbrook, Frank; Moore, Ronni; Morris, John R.; Commissioner Ann Hildebrand; Commissioner Jack Mariano; Commissioner Michael Cox; Commissioner Pat Mulieri; Commissioner Ted Schrader; County Administrator John Gallagher; Pasco County Commissioners; Representative Ed Homan; Representative John Legg; Representative Peter Nehr; Representative Robert Schenck; Representative Tom Anderson; Representative Will Weatherford; Representative Rich Glorioso; Senator Mike Fasano; Senator Ronda Storms; Senator Victor Crist  
**Cc:** Pelz, Susan; Morgan, Steve  
**Subject:** West Pasco CL III 26254-001-SO-T3 issued permit dated 11-7-2008  
**Attachments:** West Pasco CL III 26254-001-SO-T3 issued permit dated 11-7-2008



Memorandum

Florida Department of Environmental Protection

PERMIT COVER MEMO

TO: <sup>MSD</sup> x DEBORAH A. GETZOFF, District Director

FROM/THROUGH: William Kutash *[Signature]* ENVIRONMENTAL ADMINISTRATOR  
Susan Pelz, P.E. *[Signature]* SOLID WASTE MANAGER  
Steve Morgan *[Signature]* SOLID WASTE PERMITTING *11/5/08*

DATE: November 5, 2008

FILE NAME: West Pasco Class III Landfill  
PROGRAM : Solid Waste

PERMIT #: 26254-001-SO/T3  
COUNTY : Pasco

TYPE OF PERMIT ACTION: ISSUE FINAL PERMIT

PERMIT SUMMARY: This permit application is for renewal of the operation permit for the existing West Pasco Class III landfill.

PROFESSIONAL RECOMMENDATION: X APPROVE        DENY

EVALUATION SUMMARY: The applicant has provided sufficient information to demonstrate compliance with Department Rules.

TIH= 642; TTP=203 (to 11/05/08)		TTP
Application rec'd	02/02/07	
RAI #1 sent	03/02/07	29
RAI #1 response rec'd	04/19/07	
RAI #2 sent	05/18/07	30
Partial RAI #2 response rec'd	10/08/07	
Partial RAI #2 response rec'd	12/28/07	
RAI #2 response rec'd	03/21/08	
RAI #3 sent	04/18/08	28
RAI #3 response rec'd	06/25/08	
RAI #4 sent	07/24/08	30
RAI #4 response rec'd	08/11/08	
Application complete	08/11/08	
Final permit for routing	11/05/08	86

DAY 90/30 FOR THIS ACTION IS: ASAP Day 90=11/08/08

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. John Power  
 Solid Waste Facility Manager  
 Pasco County Utilities Services  
 7530 Little Road  
 New Port Richey, FL 34654

ISSUED Final PERMIT #26254-001-SC/73  
 West Pasco CL ALLF

2. Article Number

(Transfer from service label)

7007 2680 0000 5032 6330

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

Agent

Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1?  Yes

If YES, enter delivery address below:  No

3. Service Type

Certified Mail

Express Mail

Registered

Return Receipt for Merchandise

Insured Mail

C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

U.S. Postal Service™

**CERTIFIED MAIL™ RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)®

**OFFICIAL USE**

0000 0992 7007 2680 5032 6330

Postage \$

Certified Fee

Return Receipt Fee  
(Endorsement Required)

Restricted Delivery Fee  
(Endorsement Required)

Total Postage &

Mailed 11-7-03  
 RD

Postmark  
 Here

Sent To

Street, Apt. No.,  
 or PO Box No.

City, State, ZIP+4

Mr. John Power  
 Solid Waste Facility Manager  
 Pasco County Utilities Services  
 7530 Little Road  
 New Port Richey, FL 34654

PS Form 3800, August 2003

See Reverse for Instructions

UNITED STATES POSTAL SERVICE



First-Class-Mail  
Postage & Fees Paid  
USPS  
Permit No. G-10

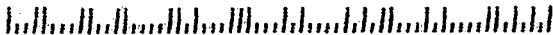
- Sender: Please print your name, address, and ZIP+4 in this box •

**Dept. of Environmental  
Protection**

Florida Department of Environmental Protection  
Southwest District  
c/o Steve Morgan – Solid Waste  
13051 North Telecom Parkway  
Temple Terrace, FL 33637-0926

**NOV 12 2008**

**Southwest District**





# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

CERTIFIED MAIL NO. 7007 2680 0000 5032 6330  
RETURN RECEIPT REQUESTED

November 7, 2008

## NOTICE OF PERMIT

Mr. John Power, Solid Waste Manager  
Pasco County Board of County Commissioners  
7530 Little Road  
New Port Richey, Florida 34654

RE: West Pasco Class III Landfill  
Permit Number 26254-001-SO/T3, Pasco County  
WACS No: SWD/51/45920

Dear Mr. Power:

Enclosed is permit number **26254-001-SO/T3**, issued pursuant to Section(s) 403.087(1), Florida Statutes.

A person whose substantial interests are affected by this transfer of permits may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Blvd., MS#35, Tallahassee, 32399-3000, within fourteen (14) days of receipt of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within fourteen (14) days shall constitute a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes.

The petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of Department's action, or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action;

- (f) A statement of which rules or statutes petitioner contends warrant reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

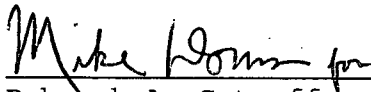
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C. Mediation is not available in this proceeding.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rules 62-110 and 28-106, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Blvd., MS#35, Tallahassee, 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
\_\_\_\_\_  
Deborah A. Getzoff  
District Director  
Southwest District

DAG/sgm  
Enclosure

Copies furnished to:

Pasco County Elected Officials Notification  
Aamod Sonawane, P.E., CDM, [sonawaneas@cdm.com](mailto:sonawaneas@cdm.com)  
Fred Wick, FDEP Tallahassee (e-mail)  
John Morris, P.G., FDEP Tampa (e-mail)  
Ronni Moore, OGC Tallahassee (e-mail)  
Susan Pelz, P.E., FDEP Tampa (e-mail)  
Permit Notebook

CERTIFICATE OF SERVICE

This undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on Nov 7, 2008 to the listed persons.  
(date stamp)

Other copies were mailed or transmitted electronically to the listed persons.

FILING AND ACKNOWLEDGMENT  
FILED, on this date, pursuant to Section 120.52(10), Florida Statutes, with the designated Department, Clerk, receipt of which is hereby acknowledged.

  
\_\_\_\_\_  
Clerk

11/7/2008  
Date



# Florida Department of Environmental Protection

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

## PERMITTEE

Pasco County Board of  
County Commissioners  
7530 Little Road  
New Port Richey, Florida 34654  
c/o Mr. John Power, SW Manager

## PERMIT/CERTIFICATION

WACS Facility ID No: SWD/51/45920  
Permit No: **26254-001-SO/T3**  
Date of Issue: **11/7/2008**  
Expiration Date: **11/7/2013**  
County: Pasco  
Lat/Long: 28°22'22"N  
82°34'06"W  
Sec/Town/Rge: 25&26/24S/17E  
Project: West Pasco Class III Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-520, 62-522 and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or referenced in Specific Condition #A.2. and made a part hereof and specifically described as follows:

To operate, monitor, and maintain a Class III landfill (approximately 14.0 acres), referred to as the West Pasco Class III Landfill, and related ancillary facilities, subject to the specific and general conditions attached, located at 14230 Hays Road, Spring Hill, Pasco County, Florida. The specific conditions attached are for the operation of a:

1. Class III Landfill
2. Leachate holding tanks system
3. Household Hazardous Waste Collection and Recycling Center (HHWCC)

Replaces Permit No.: 26255-001-SO

## General Information

Disposal acres	Approx. 14 acres (Cells 1-4 - 3.5 acres each)
Lowest bottom elevation of Cells 1-4 (south end of Cell 1)	+45.0 ft. NGVD [ref. SC#A.2.b., Sheet C-6]
Top elevation at final buildout	Max. +79.26 ft NGVD [ref. SC#A.2.a.(3), Sheet 12]
Side slopes max.	4H:1V [ref. SC#A.2.a.(3), Sheet 12]
Liner system (bottom to top)	In-situ subgrade, 60 mil HDPE geomembrane, 2-foot drainage sand [ref. SC#A.2.b., Sheet C-10, Detail D]
LCS drainage system	Two 8-inch PE perforated LCS piping per cell, draining north to south within 2-foot drainage/protective sand layer [ref. SC#A.2.b., Sheet C-10, Detail D]  Cell 1 & 2 perforated LCS pipes drain to non-perforated 10-inch header pipe and leachate manhole for each cell. Cell 1 & 2 manholes drain to Leachate Tank No. 1. Cells 3 & 4 drain similarly to Leachate No. 2. Leachate from Tanks 1 & 2 drains to Shady Hills WWTP [ref. SC#A.2.b., Sheet C-6 and SC#A.2.a.(1), Figure No. 4]
Design life	45-55 years
Leachate storage tanks	Two below ground concrete leachate holding tanks, no secondary containment: nominal diameter = 10 ft diameter, approx. 11-12 ft deep. [ref. SC#A.2.b., Sheet C-8, Detail A]

This permit contains compliance items summarized in **Attachment 1** that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - (a) Have access to and copy any records that must be kept under conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.



**GENERAL CONDITIONS:**

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (a) Determination of Best Available Control Technology (BACT)
- (b) Determination of Prevention of Significant Deterioration (PSD)
- (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
- (d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

**GENERAL CONDITIONS:**

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware, the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

1. **Facility Designation.** This landfill shall be classified as a **Class III landfill and related facilities**, and shall be operated, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 62-330, 62-520, 62-522, 62-550, and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.
2. **Permit Application Documentation.** This permit is valid for operation of Cells 1-4 of the Class III landfill, the leachate holding tank system, and related ancillary facilities, in accordance with all applicable requirements of Department rules, the conditions of this permit, and in accordance with the reports, plans and information submitted by CDM, unless otherwise noted, as follows:
  - a. Operation Permit Renewal Application for West Pasco Class III Landfill, (one 3-ring binder & one spiral bound document) dated and received February 2, 2007, prepared by CDM, as revised, replaced or amended (information inserted into originals), dated and received April 19, 2007, dated October 5, 2007 (received October 8, 2007), dated and received December 28, 2007, dated March 20, 2008 (received March 21, 2008), dated and received June 25, 2008, and dated and received August 11, 2008. This information includes, but is not limited to:
    - 1) Operations Plan, dated June 2008 [Section 3, Attachment 1];
    - 2) Groundwater Monitoring Plan, March 20, 2008 (revised August 11, 2008) [spiral bound document]; and
    - 3) Plan Sheet titled, Sheet #12 "Final Closeout Cross Sections" signed and sealed January 21, 1988, revised and received June 25, 2008.
  - b. Plan Set titled, West Pasco County Class III Landfill Construction Drawings (Record Drawings May 10, 1991) (14 sheets), received July 7, 1995.
3. **Permit Modifications.**
  - a. Any construction or operation not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Any significant changes to the operations at the facility shall require a permit modification. Permits shall be modified in accordance with the requirements of Rule 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.
4. **Permit Renewal.** **No later than May 1, 2013**, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by Rule 62-701.320(10), F.A.C. Operation permit renewal shall include, but not be limited to, an updated operations plan, water quality monitoring plan, site plans for sequence of filling with cross-sections of lifts, and revised (not inflation-adjusted) financial assurance cost estimates.
5. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

**SPECIFIC CONDITIONS: PART A, Solid Waste Facility General Requirements**

6. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

7. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

8. **Regulations.** Chapter 62-701, F.A.C., effective May 27, 2001, is incorporated into this permit by reference. In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

9. **Prohibitions.**

a. The prohibitions of Rule 62-701.300, F.A.C., shall not be violated by the activities at this facility.

b. In the event that surface depressions which may be indicative of sinkhole activity, or subsurface instability, are discovered onsite, or within 500 feet of the site, the Department shall be notified in accordance with Specific Condition #C.6.b, below. Written notification shall be submitted **within 7 days of discovery**. The written notification shall include a description of the depression, the location and size of the depression shown on an appropriate plan sheet, and a corrective action plan which describes the actions necessary to prevent the unimpeded discharge of waste or leachate into ground or surface water.

c. Waste Burning. Open burning of solid waste is prohibited except in accordance with Rule 62-701.300(3) and Chapter 62-256, F.A.C. All fires which require longer than one (1) hour to extinguish must be promptly reported to the Department in accordance with Specific Condition #C.6.b., below.

**SPECIFIC CONDITIONS: PART B - Construction Requirements**

1. **Construction.** All significant construction activities shall be approved by the Department prior to initiating work, unless specifically authorized otherwise.

2. **Certification of Construction Completion.** All information required by this Specific Condition shall be signed and sealed by a registered professional engineer or land surveyor as appropriate.

a. **Within sixty (60) days** after any specified construction has been completed or as otherwise specified in this permit, the following activities shall be completed and submitted by the permittee to the Department. Operation of the constructed systems, structures, equipment, etc., shall not be initiated prior to Department approval of the information required by this Specific Condition.

1) The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer responsible for the construction to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.

2) The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include as-built plans details and elevations (survey) as appropriate.

3) The owner or operator shall submit a narrative indicating all changes in plans and the cause of the deviations, and certification by the design engineer to the Department.

4) The engineer of record shall provide a report to verify conformance with the project specifications. The report including all related testing results shall be submitted to the Department along with the completion of construction documents.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

**1. Facility Operation Requirements.**

a. The permittee shall operate this facility in accordance with Rule 62-701.500, F.A.C., the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], Operations Plan [ref. SC#A.2.a(1)], and any other applicable requirements.

1) Operation of the Waste Tire Facility shall be in accordance with Chapters 62-701 and 62-711, F.A.C., and Operation Permit 126935-002-WT/02 (including modifications, if any), or its successors.

2) Operation of the Yard Trash Processing Facility shall be in accordance with Chapter 62-709.320, F.A.C., and Yard Trash Processing Facility Registration No. 051-01-YT, or its successors.

3) The Household Hazardous Waste Collection/Storage Facility (HHWCC) shall be operated in accordance with the HHWCC Operating Plan and Contingency Plan, submitted by Pasco County on May 22, 1995.

b. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner and leachate management systems at any time during the construction or operation of this facility.

c. Waste shall not be disposed (unloaded, spread, or compacted) during non-daylight hours, unless sufficient lighting is provided to adequately observe the materials and remove unacceptable wastes.

d. Site Inspections.

1) The owner or operator shall inspect the site for erosion and settlement (low spots and improperly graded areas) **weekly** (twice per week during the wet seasons). Erosion and settlement shall be repaired in accordance with Specific Condition #C.6.

2) The owner or operator shall inspect the landfill facility for the presence of objectionable odors at the property boundary **daily on operating days**. In the event that objectionable odors are detected at the property boundary, the owner or operator shall abate the odors in accordance with the procedures in Section 9.B. of the Operations Plan.

3) The owner or operator shall inspect the area of the facility outside the working face area of the facility for litter **daily**. [ref. Op. Plan, Sec. 7]. In the event that the litter control program is ineffective, the operator shall notify the Department, and implement additional litter control measures **within 30 days**.

e. In the event of fire, hurricane or other severe natural event, inoperable equipment, lack of qualified personnel, or stormwater control problems which allow prolonged (**greater than 72 hours**) contact of ponded water with waste, the facility shall cease disposing waste in the affected area until appropriate drainage has been restored.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.1., cont'd)

f. Equipment. In the event of equipment breakdown or scheduled maintenance, the owner or operator shall ensure that sufficient reserve equipment is operating at the site within 24 hours of the occurrence. In the event that sufficient reserve equipment is not obtained within 24 hours, the permittee shall notify the Department in accordance with Specific Condition #C.6.b., below and provide a schedule for corrective actions.

g. Fires. In the event of a fire which requires offsite assistance from the local fire protection authorities, the Department shall be notified pursuant to Specific Condition C.6.b. below, and the owner or operator shall cease disposal of waste in the affected area until the fire has been completely extinguished, or as otherwise specified by the Department [ref. Op. Plan, Sec. 11.e.]. Trenches cut into the waste shall not be used to extinguish fires without prior Department approval.

h. Waste streams generated by the operation or maintenance of the facility and equipment shall be managed such that any residual contaminants (such as gasoline, oil, paint, antifreeze, PCBs, etc.) shall be stored such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the ground or into surface or groundwaters.

**2. Operating Personnel.**

a. A trained operator (trained in accordance with the Section 1 of the Operations Plan) shall be on duty at the facility whenever the facility is operating and shall be responsible for operating and maintaining the facility in an orderly, safe, and sanitary manner.

b. A sufficient number of trained spotters (at least one trained spotter) shall be at the tipping areas at all times that waste is being accepted at the facility to inspect each load of waste as it is unloaded and spread, and shall remove prohibited materials prior to processing [ref. Op. Plan, Sec. 2.c.]. Training of spotters shall be in accordance with the Section 1 of the Operations Plan.

c. A sufficient number of trained personnel shall be available to adequately operate the facility. In the event that a trained operator or spotter is not available at the site, the facility shall be closed and shall not accept debris. In the event that unacceptable wastes are not adequately removed from the waste prior to disposal, additional trained spotters shall be required.

d. The permittee shall notify the Department in writing of a change of the County's primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

3. **Control of Access.** Access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C. [ref. Op. Plan, Sec. 5]. Adequate access to the working face shall be provided for all weather conditions while the facility is receiving waste for disposal.
4. **Monitoring of Waste.**
  - a. Wastes shall be monitored as required by Rule 62-701.500(6), F.A.C., including a load checking program and associated activities. The owner or operator shall conduct three random load checks per week at the active working face [ref. Op. Plan, Sec. 6]. Documentation of the three random load checks, including descriptions (type and quantity) of unacceptable wastes discovered, shall be maintained on-site, and copies provided to the Department upon request [ref. SC#D.3.b(3)].
  - b. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous wastes are wastes listed in 40 CFR 261 Subpart D as hazardous or are wastes characterized in 40 CFR 261 Subpart C as hazardous. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with Rules 62-701.300(4) and 62-701.500(6)(b), F.A.C. In the event that hazardous wastes are discovered, the Department shall be notified in accordance with Specific Condition #C.6.b. and the waste shall be managed in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan.
5. **Control of Nuisance Conditions.**
  - a. The owner or operator shall control odors, vectors (mosquitoes, other insects, rodents), and fugitive particulates (dust, smoke) arising from the operation to protect the public health and welfare. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance.
  - b. In the event that the odor control measures performed at the facility, do not sufficiently abate objectionable odors offsite, **within sixty (60) days** of initial detection, the owner or operator shall submit an odor abatement plan to the Department for approval. The odor abatement plan shall include at a minimum, a description of the proposed corrective actions and a schedule for implementation.
6. **Facility Maintenance and Repair.**
  - a. The site shall be properly maintained including maintenance of access roads to disposal areas, equipment, stormwater and leachate management systems, leachate holding tanks, cover systems and berms, gas monitoring system, and groundwater monitoring system. Erosion and ponded water in disposal areas shall be prevented. Erosion in the stormwater management system shall be minimized.



**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.6., cont'd)

b. In the event of damage to any portion of the landfill site facilities, unauthorized leachate discharge, failure of any portion of the landfill systems, damaged or dry groundwater monitoring wells, damage to the liner or leachate collection, removal or treatment systems, fire, explosion, the development of sinkhole(s) or other subsurface instability at the site, landfill gas exceedances in onsite structures, etc., the permittee shall **immediately (within 24 hours)** notify the Department explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. Written, detailed notification shall be submitted to the Department within seven (7) days following the occurrence.

c. In the event that any portion of the groundwater monitoring system is damaged or unable to be sampled, corrective actions shall be completed **within sixty (60) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department. Corrective actions which include relocation or installation of new groundwater monitoring wells shall be in accordance with Specific Condition #E.5., or as otherwise approved by the Department.

d. In the event that the stormwater or leachate management systems or liner system is damaged or is not operating effectively, corrective actions shall be implemented **within thirty (30) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department.

e. Intermediately covered areas, or areas which discharge to the stormwater management system, which exhibit significant erosion shall be repaired as specified below:

- 1) **Within 7 days** if the soil cover materials have eroded such that greater than 50% of the soil in that location has been eroded, or
- 2) **By the end of the next working day** if waste or liner is exposed.

f. In the event that the intermediately covered side slopes exhibit chronic, "significant" erosion as defined above, a corrective action plan shall be submitted to the Department **within thirty (30) days** of written notification and request from the Department and corrective actions shall be implemented in accordance with the Department approved corrective action plan.

g. Areas which have received final cover, and which exhibit significant erosion as defined above, shall be repaired as specified in Specific Condition #C.6.e., above.

h. Settlement. Areas which exhibit settlement (low spots and improperly graded areas) that may cause ponding of water shall be repaired (additional soil placed, regraded, seeded and/or sodded) **within seven (7) days**.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

7. **Stormwater System Management.**

a. The site shall have a surface water management system designed, constructed, operated, and maintained to prevent surface water from running on to waste filled areas and the mixing of stormwater with leachate, and a stormwater runoff control system designed, constructed, operated, and maintained to collect and control stormwater to meet the requirements of Chapter 62-330, F.A.C., and the requirements for management and storage of surface water in accordance with Rule 62-701.500(10), F.A.C., to meet applicable standards of Chapters 62-3, 62-302, and 62-330, F.A.C. All stormwater conveyances shall be inspected monthly and after significant (greater than 2") rainfall events to verify adequate performance. Conveyances not performing adequately shall be repaired in accordance with the procedures specified in the Operations Plan. Documentation of all inspections and repairs shall be kept on file at the facility.

8. **Leachate Management.**

a. Leachate shall be managed in accordance with the requirements of Rule 62-701.500(8), F.A.C., the information in Section 2.j and Section 8 of the Operations Plan, and other applicable Department rules.

b. Leachate, which has accumulated in low areas within the disposal area shall be removed from the disposal area at least **daily**.

c. Leachate Disposal.

1) Leachate shall be pumped offsite for disposal at an appropriately permitted wastewater treatment facility (WWTP). No later than **thirty (30) days** prior to the expiration of any contracts or agreements for the disposal of leachate at wastewater treatment facilities, the permittee shall provide a copy of the contract renewal or the issuance of a new contract for leachate disposal.

2) In the event that the primary leachate disposal facility becomes unable or unwilling to accept leachate for disposal, **within three (3) days** of the cessation of leachate acceptance by the WWTP, the landfill owner or operator shall notify the Department and shall explain the contingency measures which will be implemented. The contingency measures shall be implemented **within seven (7) days** of the cessation of leachate acceptance at the WWTP, or in accordance with an alternate schedule approved by the Department.

d. Leachate Quantities.

1) Leachate quantities shall be measured and recorded in accordance with the procedures specified in Section 8 of the Operations Plan.

2) A rain gauge located on-site shall be used to compare precipitation with leachate generation. Rainfall data, in excess of one-tenth of an inch, shall be recorded by landfill personnel on a daily basis [ref. Op. Plan, Sec. 8].

3) Leachate generation reports shall be compiled monthly and submitted to the Department quarterly or more frequently if requested, by **January 15th, April 15th, July 15th and October 15th** each year. Leachate generation reports shall include precipitation amounts greater than one tenth of an inch, the number of open, intermediate and closed acres, and the quantities of leachate collected, stored, and hauled off-site to a wastewater treatment facility.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.8., cont'd)

e. Leachate Collection System Inspections/Maintenance.

1) Each manhole and leachate holding tank and related sensors and controller mechanisms shall be inspected on a monthly basis [ref. Op. Plan, Sec. 8]. Pumps showing reduced performance shall be removed for maintenance and repair, and a replacement pump installed if required for continued compliance.

2) **No later than February 1, 2013**, the entire leachate collection and removal system shall be water pressure cleaned and/or video inspected to verify adequate performance. Components not performing adequately shall be cleaned and/or repaired. The inspection report shall include an evaluation of the effectiveness of the system, the location (indicated on a Site Plan) and cause of obstructions encountered, proposed corrective actions as appropriate. The results of the inspection and cleaning shall be submitted to the Solid Waste Section of the Southwest District Office **no later than May 1, 2013** to demonstrate adequate performance.

f. Leachate Storage Tanks.

1) In the event of failure of the tank overflow protection system (i.e. signal alarms and pump shut-off failure), the back-up contingency plan procedures specified in Section 8 of the Operations Plan shall be implemented.

9. **Special Wastes Handling Requirements.**

a. The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with the procedures provided in Section 2.c. and Section 6 of the Operations Plan; Rules 62-701.300(8) and 62-701.520, F.A.C.; and any other applicable Department rules, to protect the public safety, health and welfare. The special wastes shall be stored and managed such that discharge of contaminants to the environment is prevented. The special wastes shall be handled on a first-in, first-out basis. The special wastes shall be stored in a location which does not interfere with the sequence of filling.

b. Scrap metal. Scrap metal separated from the waste stream for recycling shall be stored within the designated metals storage area shown on Figure 1 of the Operations Plan and managed as described in the Operations Plan [ref. Op. Plan, Sec. 2.c.]. Scrap metals which may include residual contaminants such as gasoline, oil, paint, antifreeze, PCBs, etc., shall be stored and managed such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the soil or into surface or groundwaters.

c. White Goods. White goods shall be rejected and reloaded or kept undamaged and placed upright adjacent to the designated metals storage area shown on Figure 1 of the Operations Plan. White goods, which may contain chlorofluorocarbons (CFCs, such as Freon), shall be stored and managed in a manner such that the CFCs are not discharged to the atmosphere. White goods which have had the refrigerant appropriately removed shall be clearly marked and may be stored in the scrap metal storage area.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.9., cont'd)

d. Waste Tires. Tires inadvertently accepted at the facility and subsequently removed from waste stream shall be managed at the on-site waste tire processing facility in accordance with Chapters 62-701 and 62-711, F.A.C., and Waste Tire Collection Center Permit No. 126935-002-WT/02 (including modifications, if any), or its successors.

e. Other Special Wastes. Small items of special wastes (e.g. used oil, lead acid batteries, mercury-containing devices, etc) removed from the waste stream shall be sent to the HHWCC and managed in the designated areas for these wastes in accordance with the HHWCC Operating Plan and Contingency Plan [ref. SC #C.1.a.(3)].

f. Contaminated soil, excavated waste. Neither soils that are reasonably believed to be contaminated nor wastes excavated from the redevelopment of former disposal sites/areas, shall be disposed at this site. In order to ensure that these materials are not inadvertently received at the site, for all loads with large quantities of soil, **prior to the acceptance of the load**, the permittee shall request the following information for each load: name, address and phone number of generator (i.e., jobsite where material is generated), a certification from the generator that the material is not known to be contaminated and/or did not originate from a former waste disposal area.

g. Shredded/Processed Waste. Wastes that are not clearly identifiable by visual observation as Class III waste are prohibited from being accepted at this facility. Waste that has originated from excavation or redevelopment of old landfills or unpermitted dumps is considered Class I waste and is not authorized to be managed at this facility.

10. **Waste Handling Requirements.**

a. A sufficient number of spotters shall be utilized at the facility for removing unacceptable wastes. In the event that unacceptable wastes are not adequately removed due to inadequate personnel, additional trained spotters shall be required.

b. A trained spotter shall be positioned at the working face to inspect each load as it is being received, unloaded and as it is spread and compacted [ref. Op. Plan, Sec. 2.c.].

c. Unauthorized wastes shall be removed from the waste and stored in a 40 CY roll-off containers located immediately adjacent to (within 200 feet) the active face. The unacceptable waste container shall be removed for disposal within at the end of each working day or when full, whichever occurs first. [ref. Op. Plan, Secs. 2.c.].

d. Containers which store unauthorized wastes shall be covered/tarped at the end of each business day, when full, and in the event of inclement weather.

e. Unauthorized wastes shall be removed from the incoming loads immediately, and no other loads shall be dumped in the immediate vicinity until unauthorized materials have been removed and stored in the container provided for unacceptable wastes.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

11. **Waste Covering Requirements.** All solid waste disposed of in the Class III landfill shall be covered as required by Rule 62-701.500(7), F.A.C.

a. Initial Cover. Initial cover shall be applied and maintained at the Class III landfill in accordance with Rule 62-701.500(7)(e), F.A.C., so as to protect the public health and welfare.

1) All solid waste disposed of in the Class III disposal area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department (in writing), at the end of each working week [ref. Op. Plan, Sec. 7.].

b. Intermediate cover shall be applied and maintained in accordance with F.A.C. 62-701.500(7)(f). An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion [ref. Op. Plan, Sec. 7.].

c. Top gradients of intermediate cover shall be designed to prevent ponding or low spots and minimize erosion. **Daily**, the owner or operator shall operate the facility, maintain grades, or utilize berms and swales, to prevent ponded water within the disposal areas.

12. **Working Face.**

a. The permittee shall maintain a working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously that can be adequately spotted by the number of trained spotters at the facility. [ref. Op. Plan, Sec. 7.].

b. Interceptor berms shall be maintained around the working area to prevent leachate runoff from the working face from entering the stormwater management system and to minimize the formation of leachate [ref. Op. Plan, Sec. 7.].

13. **Method and Sequence of Filling.**

a. The method and sequence of filling shall be in accordance with the Sequence of Fill Drawing [ref. Op. Plan, Figure No. 2], and as described in the Operations Plan [ref. Op. Plan, Secs. 2.f., 2.g. & 7.], or as otherwise approved in writing by the Department.

b. Waste shall be spread in 2 feet thick layers and compacted before applying the next layer of waste and in accordance with the method, procedures, and sequence described in the facility Operations Plan [ref. Op. Plan, Sec. 2.g.]. Cells shall be filled in approximate 10 foot lifts. Slopes shall be maintained in accordance with the Permit Drawings. The working face shall be no greater (steeper) than **3H:1V** [ref. Op. Plan, Secs. 2.g. & 7.].

c. The permittee shall maintain and clearly stake/mark the location of the edge of the liner and maintain the locations as the landfill increases in elevation to prevent waste disposal and leachate runoff outside the geomembrane liner. The permittee shall maintain a minimum disposal setback of 5 feet from the inside top edge of the bottom liner system.

**SPECIFIC CONDITIONS: PART C - Operation Requirements**

(Specific Condition #C.13., cont'd)

d. Initial Waste Placement.

1) No disposal vehicles shall be operated directly on the liner protective layer. During the initial placement of waste in each cell, soil platforms or similar protective measures shall be placed adjacent to the working face to keep vehicles off the liner protective cover.

2) The first lift of waste shall be a minimum of four(4) feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system and shall be conducted in accordance with the procedures in Section 7 of the Operations Plan. At least 7 days prior to the initiation of waste placement in each cell, the Department shall be notified in order to allow Department observation of the select waste type and placement.

e. The owner or operator shall conduct a topographic survey of, and shall estimate the remaining disposal capacity and site life of each disposal area as required by Rule 62-701.500(13)(c), F.A.C. **Annually, no later than April 15<sup>th</sup> each year,** a copy of this survey, supporting capacity calculations, signed and sealed by a registered professional engineer and/or licensed professional land surveyor as appropriate shall be submitted to the Department. The survey shall demonstrate that the above-grade sideslopes are no greater than the design slopes, that the top elevation does not exceed design elevation, and that all other design features and related improvements conform to the Department-approved permit drawings. The capacity estimate shall include updated design lifetime calculations.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

1. **Report Submittals.**

a. Unless specified otherwise in this permit, all submittals, notifications, or requests for permit modification shall be provided to the Southwest District Solid Waste Section, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

2. **Operation Plan and Operating Record.**

a. Each landfill owner or operator shall have an operational plan which meets the requirements of Rule 62-701.500(2), F.A.C. A copy of the Department approved permit, operational plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections [ref. Op.Plan, Sec. L.3]. Operating records as required by Rule 62-701.500(3), F.A.C., are part of the operations plan, and shall also be maintained at the site.

b. Proposed changes to the current Department-approved **Operations Plan** shall be submitted in writing to the Department for review and may require a permit modification in accordance with Specific Condition #A.3. The **Operations Plan** shall be updated as operations change and for renewal of the permit. Revised pages shall be provided as replacement pages with revisions noted (deletions may be struckthrough (~~struckthrough~~) and additions may be shaded (~~shaded~~) or a similar method may be used) and each page numbered with the document title and date of revision.

3. **Waste Records.**

a. Waste records shall be maintained as required by Rule 62-701.500(4), F.A.C. The owner or operator of the facility shall weigh each load of waste as it is received (with scales at the facility) and record, in tons per day, the amount of waste debris and material received. This information shall be compiled **monthly** and submitted to the Department (Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, M.S. 4565, Tallahassee, Florida 32399-2400) **quarterly, by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup> of each year** [ref. Op.Plan, Sec. L.4]. Waste shall not be accepted for disposal at the landfill unless weight scales are available at the facility and are in proper working condition.

b. The following reports, documents and other information shall be kept at the facility for reference, and copies shall be provided to the Department upon request:

- 1) Waste quantity reports [ref. SC #D.3.a].
- 2) A log of the facility operator's inspections, and any subsequent corrective actions;
- 3) Load checking records;
- 4) Operator and spotter training certificates and other documentation; and
- 5) Log of odor complaints and corrective action.
- 6) Records as described in Rule 62-701.500(13). These records shall include all certifications for construction completion;
- 7) Documentation of incidents reported pursuant to Specific Condition C.6.;
- 8) Water quality and gas monitoring reports.

**SPECIFIC CONDITIONS: PART D - Recordkeeping**

4. **Financial Assurance.** The permittee shall provide adequate financial assurance for this facility and related appurtenances in accordance with Rule 62-701.630, F.A.C.

a. All costs for closure shall be adjusted and submitted for approval **annually, by September 1st each year** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

b. Proof that the financial mechanism has been adequately funded shall be submitted **annually** to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.



**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

**1. Water Quality Monitoring Quality Assurance.**

a. All field work done in connection with the facility's Water Quality Monitoring Plan regarding the collection of ground water, surface water and leachate samples shall be conducted in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001/01 dated February 1, 2004 [or as replaced by successor SOPs], as referenced in Rule 62-160.210(1), F.A.C. All laboratory analyses done in connection with the facility's Water Quality Monitoring Plan shall be conducted by firms that hold certificates from the Department of Health Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C., as referenced in Rule 62-160.300(1), 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 the permit and shall be implemented by all persons performing sample collection or analysis related to this permit. 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.

b. The field testing, sample collection and preservation and laboratory testing, including the collection of quality control samples, shall be in accordance with methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, A.S.T.M., or EPA methods shall be used.

**2. Zone of Discharge.**

a. The zone of discharge for the West Pasco Class III landfill shall extend horizontally 100 feet from the limits of the landfill liner (all active, inactive and closed Class III waste disposal areas), or to the property boundary, whichever is less, and shall extend vertically to the first semi-confining unit within the upper Floridan aquifer.

b. The permittee shall ensure that the water quality standards for Class G-II ground water will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the ground water minimum criteria referenced in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the disposal areas.

**3. Ground Water Monitor Well Locations.** The ground water monitoring system locations for the West Pasco Class III landfill footprint (Cells 1 through 4) are designed and shall be constructed in accordance with the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM, dated March 2008, revised August 2008 [ref. SC#A.2.a(2)]. The ground water monitor wells and piezometers are located on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (**attached**), as follow:

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

(Specific Condition #E.3., continued)

WACS

Testsite	Scheduling	Notes	Aquifer	Designation	Location
Well #	ID #				
2MW-7	2343	A, X	Surficial	Background	See Figure 3-1
4MW-7	2340	A, X	Floridan	Background	↓
4MW-21	23065	B, Y	Floridan	Detection	↓
4MW-22	23066	B, Y	Floridan	Detection	↓
4MW-23	23067	C, Y	Floridan	Detection	↓
2MW-3A	19671	A, X	Surficial	Piezometer	See Figure 3-1
4MW-3A	19670	A, X	Floridan	Piezometer	↓
2MW-8	2344	A, X	Surficial	Piezometer	↓
4MW-8	2341	A, X	Floridan	Piezometer	↓
2MW-9	2345	A, X	Surficial	Piezometer	↓
4MW-9	2342	A, X	Floridan	Piezometer	↓
2MW-10	2346	A, X	Surficial	Piezometer	↓

Proposed monitor well 4MW-21 shall be constructed in accordance with the details provided in Figure 3-6 ("Proposed Well Construction at Floridan Well 4MW-21"), received March 21, 2008, and proposed monitor wells 4MW-22 and 4MW-23 shall be constructed in accordance with the details provided in Figure 3-7 ("Proposed Well Construction at Floridan Wells 4MW-22 and 4MW-23"), received March 21, 2008, as referenced in Section 3.1.3 of the document entitled "Water Quality Monitoring Plan For The West Pasco County Class III Landfill," prepared by CDM [ref. SC#A.2.a.(2)].

A = existing monitor well/piezometer

B = proposed monitor wells to be installed **within 30 days of issuance of permit #26254-001-SO**

C = proposed monitor well to be installed **at least 30 days prior to initiation of debris disposal in Cell 3 or Cell 4**

X = construction details and results of initial sampling event previously provided

Y = documentation of well construction shall be submitted **within 30 days of installation** in accordance with Specific Condition #E.5.b., and #E.5.d.; an initial sampling event shall be conducted **within 7 days of well installation and development** for the parameters listed in Specific Condition #E.4.b.

All monitor wells and piezometers are to be clearly labeled and easily visible at all times. The permittee should keep all monitor wells and piezometers locked to minimize unauthorized access.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

4. **Ground Water Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be reported at or below the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with the Class G-II ground water standards referenced in Chapter 62-520.420, F.A.C., and with the ground water minimum criteria referenced in Chapter 62-520.400, F.A.C. Compliance with ground water standards and minimum criteria shall be based on the analysis of unfiltered samples.

a. Ground water levels shall be measured at all active monitor wells and piezometers listed in Specific Condition #E.3., during all sampling events described in Specific Conditions #E.4.b., #E.4.c., and #E.8.b., to a precision of 0.01 foot. Ground water surface elevation contour maps of the surficial aquifer and of the Floridan aquifer shall be prepared for each set of water level measurements (using a consistent, nationally recognized datum) calculated for each monitor well and piezometer. The contour maps shall be submitted to the Department in the reports for the routine ground water sampling events (SC#E.10.) and the monitoring plan evaluations (SC#E.11.).

b. An "initial sampling event" shall be conducted **within 7 days of installation and development** of all new and replacement monitor wells for analysis of the following parameters:

**Field Parameters**

Static water levels  
before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
(by observation)

**Laboratory Parameters**

Total ammonia - N  
Chlorides  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix II

Iron  
Mercury  
Sodium

c. Background and detection wells 2MW-7, 4MW-7, 4MW-21 and 4MW-22 shall be sampled **semi-annually** (during the periods from January 1 to June 30, and from July 1 to December 31) for analysis of the following parameters:

**Field Parameters**

Static water levels  
before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
(by observation)

**Laboratory Parameters**

Total ammonia - N  
Chlorides  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix I

Iron  
Mercury  
Sodium

Following the completion of the "initial sampling event" at proposed well 4MW-23 in accordance with the schedule presented in Specific Condition #E.3., this new detection well shall be included in subsequent routine ground water sampling events.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

5. **Ground Water Monitor Well Construction.** The following information shall be submitted **within 90 days of installation** of all new or replacement wells or piezometers, or as stated below:

a. Prior to construction of all new or replacement wells (excluding proposed wells 4MW-21 through 4MW-23) or piezometers the permittee shall request and receive Department approval of a minor permit modification in accordance with Specific Condition #A.3.a.

b. Construction details (record drawings) for all new or replacement wells and piezometers shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (**attached**) [or as replaced by Department Form #62-701.900(30)].

c. **Within one week of well completion and development**, each new or replacement monitor well shall be sampled for the parameters listed in Specific Condition #E.4.b., to comply with the requirements of Rules 62-701.510(8)(a) and (8)(d), F.A.C.

d. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitor wells and piezometers (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, using a consistent, nationally recognized datum. The surveyed drawing shall include the monitor well and piezometer identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

6. **Well Abandonment.** All monitor wells and piezometers not a part of the approved Water Quality Monitoring Plan and not listed in Specific Condition #E.3., are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing well/piezometer locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well/piezometer abandonment **within 30 days of abandonment**. A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

7. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's ground water quality standards or minimum criteria in any detection well, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring as described in Rule 62-701.510(7)(a), F.A.C. If monitoring parameters are detected at concentrations significantly above background water quality, and exceed the Department's ground water quality standards or minimum criteria in any compliance well, the Permittee shall submit a preventive measures plan and initiate corrective action as described in Rule 62-701.510(7)(b), F.A.C.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

8. **Surface Water Sampling.** All surface water bodies that may be affected by a contaminant release at the facility shall be monitored, except bodies of water contained completely within the property boundaries which do not discharge from the site to surface waters (Rule 62-701.510(4), F.A.C.). It is not anticipated that the existing stormwater management system will discharge from the property. However, in the event that a surface water discharge occurs from the stormwater management system, representative samples of each discharge event shall be collected for analysis of the parameters listed in Specific Condition #E.8.b. In the event that any modifications to the stormwater management system associated with future uses of the landfill result in periodic surface water discharges from the property, the Department may require the implementation of routine surface water monitoring.

a. The locations, parameters, and frequencies specified herein represent the minimum requirements for surface water monitoring. Additional samples, sampling locations, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the criteria for each parameter established in Chapter 62-302, F.A.C., to demonstrate compliance with Class III (predominantly fresh water) surface water standards. Compliance with surface water criteria will be based on analysis of unfiltered samples.

b. Surface water sampling shall be conducted at the point of discharge from the property **per discharge event** in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(4) and 62-701.510(6)(e), F.A.C. In the event that the discharge has ceased prior to being able to collect a sample, the closest location within the stormwater management system to the discharge location shall be sampled to represent that particular discharge event. The Solid Waste Section of the Department shall be notified of the occurrence of each discharge event **within 24 hours of discovery**. Surface water samples shall be analyzed for the following parameters:

**Field parameters**

Specific conductivity  
pH  
Dissolved oxygen  
(COD)  
Turbidity  
Temperature  
(BOD<sub>5</sub>)  
Colors and sheens  
(TDS)  
(by observation)  
(TSS)  
Nitrate

**Laboratory parameters**

Unionized ammonia  
Total hardness  
Total phosphates  
Chlorophyll A  
Copper  
Iron  
Mercury  
Zinc  
Total organic carbon (TOC)  
Total nitrogen  
Chemical oxygen demand  
Fecal coliform  
Biochemical oxygen demand  
Total dissolved solids  
Total suspended solids

Those parameters listed in  
40 CFR Part 258, Appendix I

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

9. **Leachate Sampling.** Representative leachate samples (unfiltered) shall be collected from each of the locations described in Specific Condition #E.9.a., for the sampling events described in Specific Conditions #E.9.b., and #E.9.c. Leachate sampling shall be conducted in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C.

a. Representative leachate samples shall be collected from each of the leachate holding tanks at the locations shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008 (**attached**), as follow:

<u>Leachate</u> <u>Sample ID #</u>	<u>Landfill Cell</u>	<u>WACS Testsite</u> <u>ID #</u>
Tank #1	Cells #1 and #2	2507
Tank #2	Cells #3 and #4	2508

Individual leachate samples shall be collected from each of the leachate holding tanks for analysis of the parameters presented in Specific Condition #E.9.b., and #E.9.c. Leachate samples collected from Tank #1 and Tank #2 shall not be composited.

b. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

<u>Field Parameters</u>	<u>Laboratory Parameters</u>	
Specific conductivity	Total ammonia - N	Iron
pH	Bicarbonate	Mercury
Dissolved oxygen	Chlorides	Sodium
Colors & sheens	Nitrate	
(by observation)	Total dissolved solids (TDS)	
	<u>Those parameters listed in</u>	

40 CFR Part 258, Appendix II

c. If the leachate analyses indicate that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall provide notification to the Department in accordance with Specific Condition #C.6.b. In addition, the permittee shall initiate **monthly** leachate sampling at each of the locations listed in Specific Condition #E.9.a., for analysis of the parameters listed in Specific Condition #E.9.b. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

**10. Water Quality and Leachate Reporting Requirements.** The results of each ground water, surface water, and leachate sampling event conducted at the West Pasco Class III Landfill to comply with the Specific Conditions of this permit shall be included in reports that provide the following:

Electronic Data Deliverable (EDD) Portions of Report:

- An EDD on compact disk or flash drive media readable by Microsoft Windows in a format consistent with the requirements for evaluating the data and importing it into the Department databases that includes both field sampling data and laboratory data. The requirements for preparation of the EDD can be obtained on the Department's website at: <http://www.dep.state.fl.us/labs/dqa/adaptedms.htm>. The EDD shall provide the information required by Rules 62-701.510(9)(a)1 through 62-701.510(9)(a)7, F.A.C.

Hard Copy Portions of Report:

- Department Form 62-701.900(31) ["Water Quality Monitoring Certification"], certifying that the permittee has reviewed and approved the laboratory results;
- Certified laboratory report of results;
- Chain-of-custody documentation;
- Department SOP Form FD 9000-24 ["Ground Water Sampling Log"] for ground water sampling events; and,
- The information required by Rules 62-701.510(9)(a)8 through 62-701.510(9)(a)10, F.A.C.

The permittee shall submit to the Department results of analyses conducted for each sampling event conducted at the facility by the following due dates:

- a. Specific Condition #E.4.b. - results of ground water "initial sampling events" shall be submitted **within 60 days from completion of laboratory analyses;**
- b. Specific Condition #E.4.c. - results of ground water semi-annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> and July 15<sup>th</sup> of each year** for the periods July 1 to December 31, and January 1 to June 30, respectively;
- c. Specific Condition #E.7. - results of ground water verification events shall be submitted **within 60 days from completion of laboratory analyses;**
- d. Specific Condition #E.8.b. - results of surface water discharge sampling events shall be submitted **within 60 days from completion of laboratory analyses;**
- e. Specific Condition #E.9.b. - results of leachate annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15<sup>th</sup> of each year** for the periods January 1 to December 31;
- f. Specific Condition #E.9.c. - results of monthly leachate sampling events shall be submitted **within 60 days from completion of laboratory analyses.**

The results shall be submitted to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.

**SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements**

11. **Monitoring Plan Evaluation.** By November 1, 2010 and May 1, 2013, the permittee shall submit an evaluation of the water quality and leachate monitoring data. The periods of time to be covered by the evaluations are summarized below:

<u>Water Quality Monitoring Data Evaluation Due Date</u>	<u>Starting Sampling Event</u>	<u>Ending Sampling Event</u>
November 1, 2010	Second half 2006	First half 2010
May 1, 2013	Second half 2010	Second half 2012

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing facility design and operation as related to the prevention of ground water and surface water contamination. Any contamination that may exist shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C. The evaluations shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.



**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

**1. Landfill Gas - NPs and Title V Air Requirements.**

a. This solid waste permit will meet the statutory requirement to obtain an air construction permit before modifying or constructing a source of air pollution, except for those landfills that are subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. Facilities that are subject to the PSD requirements shall obtain an air construction permit from the Bureau of Air Regulation prior to beginning construction or modification pursuant to Rule 62-210.400, F.A.C.

b. The permittee shall comply with any applicable Title V air operation permit application requirements of Chapter 62-213, F.A.C., and 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Title V Permit applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill.

c. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 3900 Commonwealth Blvd., Tallahassee, FL 32399-3000, any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

**2. Gas Monitoring and Control.**

a. Landfills that receive degradable wastes shall have a gas management and control system designed to prevent explosions and fires, and to minimize off-site odors, lateral migration of gases and damage to vegetation. Landfill gas shall be monitored and controlled as required by Rules 62-701.500(9) and 62-701.530, F.A.C.

b. Landfill gas shall be monitored to demonstrate compliance with the criteria established in Rule 62-701.530(1)(a), F.A.C., (less than 25% of the lower explosive limit (LEL) for combustible gases in structures and less than 100% of the LEL for combustible gases at or beyond the property boundary).

c. The results of quarterly monitoring required by Rule 62-701.530(2)(c), F.A.C., conducted at the locations listed in Specific Condition #F.3., shall be submitted to the Department by the following dates:

<u>Measured During</u>	<u>Report Submitted By</u>
Quarter 1 (Jan - Mar)	April 15 <sup>th</sup> of each year
Quarter 2 (Apr - June)	July 15 <sup>th</sup> of each year
Quarter 3 (July - Sep)	October 15 <sup>th</sup> of each year
Quarter 4 (Oct - Dec)	January 15 <sup>th</sup> of each year

**SPECIFIC CONDITIONS: PART F - Landfill Gas Management**

**3. Gas Monitoring Locations.** Surficial aquifer monitor wells 2MW-7, 2MW-8 and 2MW-10 shown on Figure 3-1, "Ground Water Monitor Wells at the West Pasco County Class III Landfill," prepared by CDM, received March 21, 2008," prepared by CDM, received March 21, 2008 (**attached**), and the adjacent scale house and operator's office structures shall be sampled at least quarterly for concentrations of combustible gases determined as a percent of the LEL calibrated to methane, as described in Rule 62-701.530(2), F.A.C. Landfill gas monitoring shall be conducted in accordance with Section 9 of the document entitled "Landfill Operations Plan For West Pasco Class III Landfill," prepared by CDM, dated October 2007, revised June 2008 [ref.SC#A.2.a(1)], at the following locations:

<u>Monitoring Locations</u>	<u>Location Description</u>
Well 2MW-7	South of Class III landfill
Well 2MW-8	West of Cell 1
Well 2MW-10	Near northwest corner of Class III landfill
Scale house	Near southwest corner of Class III landfill
Operator's office	Near southwest corner of Class III landfill

The monitor wells used as gas monitoring locations are to be clearly labeled and easily visible at all times.

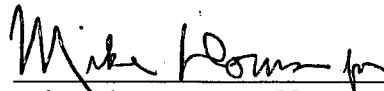
**4. Gas Remediation.** If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL calibrated to methane in structures or 100% of the LEL calibrated to methane at the property boundary, the permittee shall immediately take all necessary steps to ensure protection of human health and notify the Department. **Within 7 days** of detection, a gas remediation plan detailing the nature and extent of the problem and the proposed remedy shall be submitted to the Department for approval. The remedy shall be completed **within 60 days** of detection unless otherwise approved by the Department.

**SPECIFIC CONDITIONS: PART G - Closure and Long-Term Care Requirements**

1. **Closure Permit Requirements.** The landfill owner or operator shall submit a closure permit application to the Department, on DEP Form 62-701.900(1), for those portions of the landfill, which have reached design dimensions and grades. The permit application shall be submitted **at least 90 days prior** to the date when wastes will no longer be accepted for active portions of the landfill, as required by Rule 62-701.600(3), F.A.C., or in accordance with the conditions of an existing Department closure permit, whichever is sooner.
2. **Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed (shall receive final cover) within 180 days after reaching design dimensions, in accordance with Rule 62-701.500(7)(g), F.A.C. and all applicable requirements of Department rules.
3. **Long-Term Care Requirements.**
  - a. The owner or operator shall perform long-term care for the closed portions of the site in accordance with Rule 62-701.620, F.A.C., and the information submitted in the Attachment 2 of the Engineering Report.
  - b. Long-term care includes, but is not limited to, water quality, leachate and gas monitoring, maintenance of the final cover system, maintenance of the leachate collection and removal system, erosion control, and the prevention of ponding within disposal areas.
  - c. Prior to implementation, the owner or operator shall submit a plan for any proposed uses of the closed portions of the landfill to the Department for approval. This plan shall include a description of the proposed use, and evaluation of the impact on the existing landfill systems (e.g. final cover, leachate collection, bottom liner), engineering designs, calculations and plans as appropriate, etc. The proposed activity shall not be initiated without prior Department approval.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

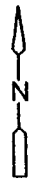


Deborah A. Getzoff  
District Director  
Southwest District

ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
A.4.	No later than May , 2012	Submit permit renewal application
A.9.b.	Within 24 hours of discovery	Notification of sinkholes or subsurface instability
	Within 7 days of verbal notification	Written notification & corrective action plan
B.2.a.	Within 60 days of completion	Submit certification of construction completion, record drawings, etc.
C.5.b.	Within 60 days of initial detection	Submit odor abatement plan
C.6.b.	Within 24 hours of discovery	Notification of: hazardous waste receipt, failure of landfill systems or equipment, damage to leachate impoundments
	Within 7 days of verbal notification	Written notification & corrective action plan
C.6.c.	Within 60 days of written notification	Complete corrective actions for gradient or groundwater monitoring system
C.6.d.	Within 30 days of written notification	Implement corrective actions for leachate or stormwater management system
C.6.f.	Within 30 days of written notification from the Department	Submit corrective action plan for chronic erosion of intermediate cover.
C.8.c.(1)	No later than 30 days prior to expiration of leachate disposal agreements/contracts	Submit copies of contract/agreement renewal or new contracts/agreements
C.8.d.(3)	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> and October 15 <sup>th</sup> each year	Submit leachate generation reports
D.3.a.		Submit waste records to Tallahassee
C.8.e.(2)	No later than May 1, 2013	Submit report of jet cleaning and video inspection of LCS piping.
C.13.e.	Annually, by April 15 <sup>th</sup> each year	Submit Topographic survey & remaining capacity calculations
D.4.a.	Annually, by September 1 <sup>st</sup> each year	Submit revised cost estimates
D.4.b.	Annually	Submit proof of funding

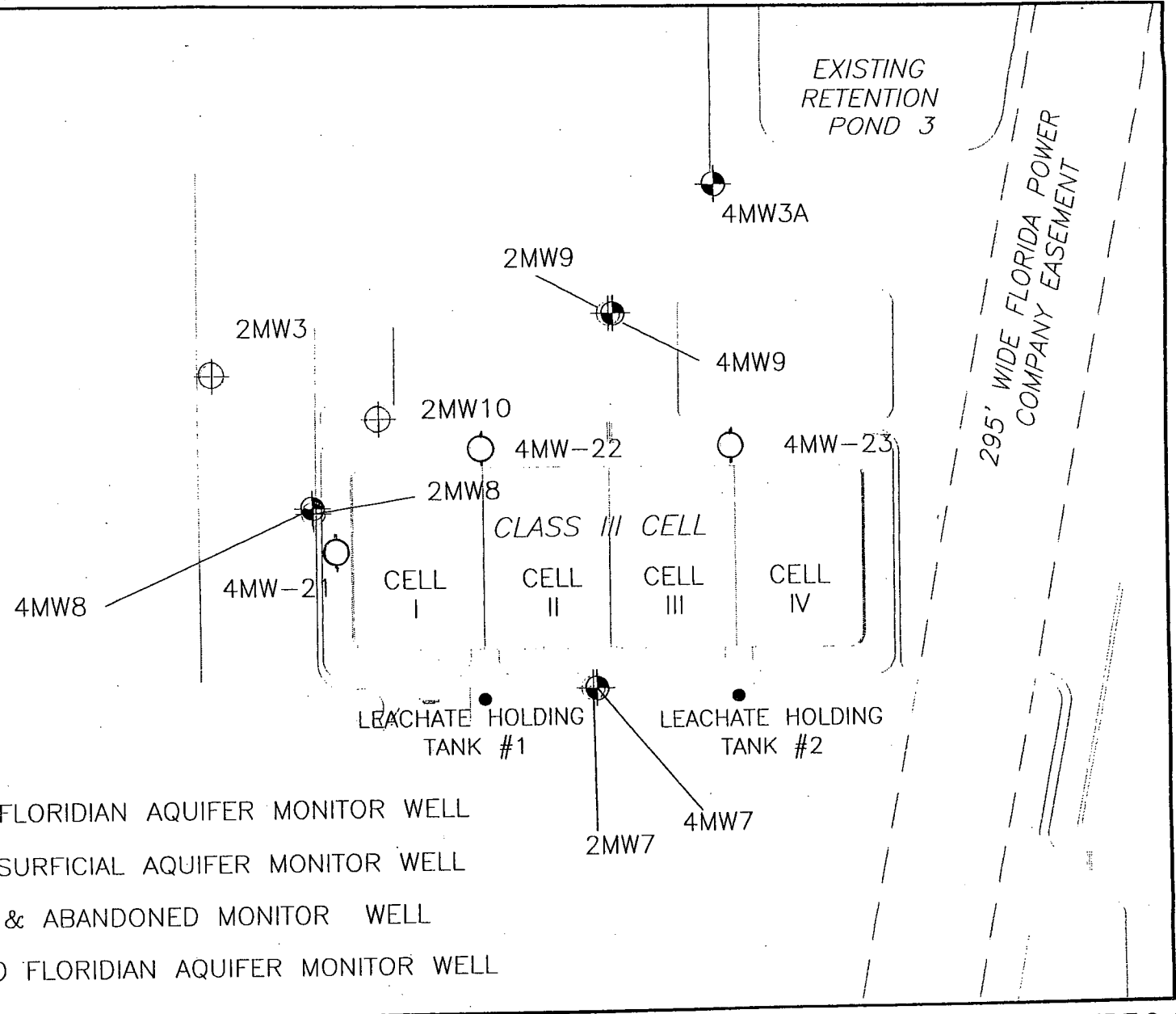
ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
E.4.b.	Within 7 days of new well installation and development	Conduct initial sampling event
E.4.c.	Semi-annually	Sample background and detection wells
E.5.a.	Prior to installation of new wells	Request and received permit modification
E.5.b.	Within 90 days of installation of new wells	Provide construction details for wells
E.5.c.	Within 1 week of well development	Conduct initial sampling
E.5.d.	Within 90 days of installation of new wells	Provide survey drawing
E.6.	Within 30 days of well abandonment	Submit documentation of abandonment
E.7	Within 14 days of discovery	Notification of: monitoring parameters significantly above background water quality or exceeding ground water standards or minimum criteria
E.8.b.	Per discharge event	Sample surface water discharging from property
E.9.b.	Annually	Conduct leachate sampling
E.10.	Semi-annually, by January 15 <sup>th</sup> and July 15 <sup>th</sup> of each year  Annually, by January 15 <sup>th</sup> of each year  Within 60 days of completion of laboratory analyses	Submit ground water quality monitoring analyses (SC#E.4.c.)  Submit leachate quality monitoring analyses (SC#E.9.b.)  Submit initial ground water sampling results (SC#E.4.b.), ground water verification sampling results (SC#E.7.), surface water discharge event sampling results (SC#E.8.b.), and monthly leachate sampling events (SC#E.9.c.)
E.11.	November 1, 2010 and May 1, 2013	Submit monitoring plan evaluation reports
F.2.c.	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> , and October 15 <sup>th</sup> of each year	Submit results of routine landfill gas monitoring events
G.1.	No later than 90 days prior to the date when wastes will no longer be received	Submit Closure Permit application

c:\Documents and Settings\koplovahik\Desktop\Han\AutoCAD drawings\West pasco class III landfill\WCM



SCALE 1"=400'

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHWEST DISTRICT  
TAMPA  
MAR 21 2008



LEGEND

- 4MW2 EXISTING FLORIDIAN AQUIFER MONITOR WELL
- 2MW2 EXISTING SURFICIAL AQUIFER MONITOR WELL
- PLUGGED & ABANDONED MONITOR WELL
- PROPOSED FLORIDIAN AQUIFER MONITOR WELL

FIGURE 3-1

GROUNDWATER MONITOR WELLS AT THE WEST PASCO COUNTY CLASS III LANDFILL



consulting • engineering • construction • operations

DEP Form # 62-522.900(3)
Form Title <u>MONITOR WELL COMPLETION REPORT</u>
Effective Date _____
DEP Application No. _____ (Filled in by DEP)

**Florida Department of Environmental Protection**  
Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

## MONITOR WELL COMPLETION REPORT

DATE: \_\_\_\_\_

INSTALLATION NAME: \_\_\_\_\_

DEP PERMIT NUMBER: \_\_\_\_\_ GMS NUMBER: \_\_\_\_\_

WELL NUMBER: \_\_\_\_\_ WELL NAME: \_\_\_\_\_

DESIGNATION: Background \_\_\_\_\_ Immediate \_\_\_\_\_ Compliance \_\_\_\_\_

LATITUDE/LONGITUDE: \_\_\_\_\_

AQUIFER MONITORED: \_\_\_\_\_

INSTALLATION METHOD: \_\_\_\_\_

INSTALLED BY: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_ (bls) DEPTH OF SCREEN: \_\_\_\_\_ (bls)

SCREEN LENGTH: \_\_\_\_\_ SCREEN SLOT SIZE: \_\_\_\_\_ SCREEN TYPE: \_\_\_\_\_

CASING DIAMETER: \_\_\_\_\_ CASING TYPE: \_\_\_\_\_

LENGTH OF CASING: \_\_\_\_\_ FILTER PACK MATERIAL: \_\_\_\_\_

TOP OF CASING ELEVATION (MSL): \_\_\_\_\_

GROUND SURFACE ELEVATION (MSL): \_\_\_\_\_

COMPLETION DATE: \_\_\_\_\_

DESCRIBE WELL DEVELOPMENT: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

POST DEVELOPMENT WATER LEVER ELEVATION (MSL): \_\_\_\_\_

DATE AND TIME MEASURED: \_\_\_\_\_

REMARKS: (soils information, stratigraphy, etc.): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REPORT PREPARED BY: \_\_\_\_\_  
(name, company, phone number)

NOTE: PLEASE ATTACH BORING LOG.

(bls)= Below Land Surface



# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

Mr. John Power, Solid Waste Facility Manager  
Pasco County Utilities  
7530 Little Road  
New Port Richey, Florida 34654

July 24, 2008

**Re: West Pasco Class III Landfill  
Pending Permit No.: 26254-001-SO/T3, Pasco County  
4<sup>th</sup> Request for Additional Information**

Dear Mr. Power:

This is to acknowledge receipt of the additional information dated and received June 25, 2008, in support of a permit renewal application to operate the West Pasco Class III landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your application for a permit is incomplete. As of July 24, 2008, the above application has been in-house for 538 days and the applicant has provided the initial application and responses to three requests for additional information from the Department. As indicated by the comments below, the information provided to date in support of the areas of the application noted below has been unresponsive to the Department comments and requests for additional information regarding these areas, and therefore currently fails to meet the criteria for a complete and sufficient application and fails to support issuance of the permit renewal for this facility. **Please be advised that, in the event that a complete and timely response to this request for information is not received by the date listed at the end of this letter, the Department may deny the pending application.**

Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

**GENERAL:**

1. The requested information and comments below do not necessarily repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.
2. Please submit 4 copies of all requested information. Please specify if revised information is intended to supplement or replace previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be shaded shaded or similar notation method. This format will expedite the review process. Please include revision date on all revised pages.
3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.



The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)]:

1. Water Quality and Leachate Monitoring Requirements - Part M: Please address the comments in John Morris' June 23, 2008 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

**Rule 62-701.320(7)(b), F.A.C. Application Form #62-701.900(1)**: Please address the following comments regarding the permit application form and provide an application form with the revised information, where applicable:

2. Part P.2.b.(5)- Plan for Long-Term Care: In both the October 8, 2007 and June 25, 2008 submittals, this section has stated, "Information will be submitted by Pasco County under Separate Cover." The revised Long-Term Care Plan has not provided by Pasco County under separate cover as indicated in Parts P.2.(b)(5). Please provide a long-term care plan consistent with the Closure Plan and Financial Assurance a replacement page to the application form that reference the revised information submitted in support of Part P.2.(b)(5), as previously requested.

3. Part F.7, Part P.2.b.(6), & Part S - Financial Assurance Information: In both the October 8, 2007 and June 25, 2008 submittals, these sections have stated, "Information will be submitted by Pasco County under Separate Cover." The revised financial assurance information has not provided by Pasco County under separate cover as indicated in Parts P.2.(b)(5). Please provide the required revised financial assurance information and replacement pages to the application form that reference the revised information submitted in support of Part F.7, Part P.2.(b)(6), and Part S, as previously requested.

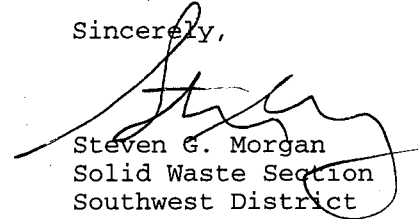
4. Attachment 2, Financial Assurance: Both the October 8, 2007 and June 25, 2008 submittals have stated that the financial assurance information to address the comments in the Department's May 17, 2008 letter "will be submitted by Pasco County under separate cover." The revised financial assurance cost estimate information has not provided by Pasco County under separate cover as indicated. Please address the comments in the Department's May 17, 2007 letter (attached) regarding the financial assurance cost estimates, as previously requested.

**This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the Department and may be subject to revision pursuant to additional information and further review.**

Please respond by **August 11, 2008**, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than the above schedule, you should develop an alternate timetable for the submission of the requested information for Department review and consideration. If the Department does not receive a timely, complete response to this request for information, the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

Please provide **4 copies** of your response to this letter as one complete package. If there are points that must be discussed and resolved or you would like to set up a meeting to discuss this letter and subsequent submittals, please contact me at (813) 632-7600 ext. 385.


Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

Attachments

Cc: Aamod Sonawane, P.E., Camp Dresser & McKee Inc. (CDM), 1715 N. Westshore Blvd., Suite 875,  
Tampa, Florida 33607  
Fred Wick, FDEP Tallahassee  
John Morris, P.G., FDEP Tampa  
Steve Morgan, FDEP Tampa  
Susan Pelz, P.E., FDEP Tampa





# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

Mr. John Power Solid Waste Facility Manager  
Pasco County Utilities Services  
7530 Little Road, S-204  
New Port Richey, Fl. 34654

May 17, 2007

RE: West Pasco Class III Landfill, Pasco County  
Financial Assurance Cost Estimates  
Pending Permit No. 26254-001-SO/T3

Dear Mr. Power:

This letter is to acknowledge receipt of the revised cost estimates, prepared by Tetra Tech Engineering, dated and received March 22, 2007. The cost estimates received March 22, 2007 are not approved. The following information is needed to fully evaluate the estimates submitted:

### General Comments

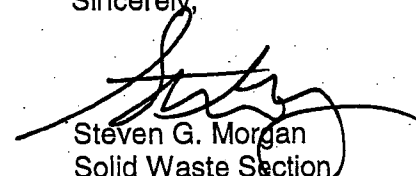
1. Please note that quantities and unit costs for closure and long-term care items may be added or changed based on comments and revisions to the above referenced permit application, therefore the proposed closure and long-term care costs may need to be revised accordingly.
2. Based on your response to the comments provided below, please provide a revised DEP Form 62-701.900(28) that incorporates all proposed changes to the closure and long-term care cost estimates and is signed by both the engineer preparing the cost estimate and the owner/operator.
3. The closing and long-term care cost estimates provided are based on a closure design (e.g. soil subgrade/40 mil synthetic liner/top soil protective layer, stormwater side slope conveyances, passive gas wells, etc.) inconsistent with the closure plan and design referenced in the above referenced permit application. Please provide revised closing and long-term care estimates, as applicable, consistent with the proposed closure and long-term care plan and design of the facility. These cost estimates will be reviewed in its entirety after receipt of this information.
4. Cost estimates provided as part of permit renewal shall be revised cost estimates and include the submittal of explanations and calculations to support quantities provided. The information, calculations, and/or assumptions utilized in support of the estimated unit quantities were not provided. This comment was previously provided in the Department's February 28, 2007 financial assurance RAI letter. Please provide this information.

5. Revised cost estimates cannot be based on inflation adjustment of previously approved costs, or be based on the costs for the County to perform the work. Therefore costs "obtained in-house or inflated from previous submittals..." cannot be utilized for estimated unit costs for closure. This comment was previously provided in the Department's February 28, 2007 financial assurance RAI letter. Please provide current third-party quotes to support all unit costs.

6. The third-party quote provided by Goodwin Brothers Construction included a cost for "Synthetic-40 mil" which does not specify what type of liner the quote is based on (e.g. HDPE, LLDPE, PVC, etc.). Please provide a third-party quote that provided this information. Please provide supporting documentation of Goodwin Brothers Construction's experience in liner installation or provide a third-party quote from a firm with adequate experience in liner installation.

The Department requests that two copies of all information be provided to the Solid Waste Section, FDEP, and Tampa office within thirty (30) days of this notice. In order to expedite the review of this information, please forward all responses related financial assurance cost estimates directly to the undersigned. If you have any questions, you may contact me at (813) 632-7600 ext. 385.

Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

SM/sgm

cc: Robert J. Sigmond, Pasco County, 7530 Little Road, New Port Richey, Florida 34654  
Aamod Sonawane, P.E., CDM Inc., 1715 N. Westshore Blvd., Suite 875, Tampa, Florida 33607  
Andrew T. Woodcock, MBA, P.E., Tetra Tech, 201 East Pine St., Suite 1000, Orlando, Florida 32801  
Fred Wick, FDEP Tallahassee w/attachment  
Susan Pelz, P.E., FDEP Tampa

Memorandum

TO: Steve Morgan  
FROM: John Morris, P.G. JRM  
DATE: July 23, 2008  
SUBJECT: West Pasco Class III Landfill, Operation Permit Application  
Pending Permit No. 26254-001-SO, Pasco County  
Hydrogeologic and Environmental Monitoring Review Comments (Responses to RAI #3)  
cc: Susan Pelz, P.E.

I have reviewed portions of the materials submitted to the Department in support of the referenced operation permit renewal application for the West Pasco Class III Landfill, prepared by CDM on behalf of Pasco County Utilities, received June 25, 2008. These materials were submitted in response to the Department's letter dated April 18, 2008 which requested additional information regarding the pending permit renewal application, and included the following:

- Document entitled "Response to FDEP's 3<sup>rd</sup> Request for Additional Information on West Pasco Class III Landfill, Operations Permit Renewal Application, Pending Permit #26254-001-SO/T3, Pasco County, Florida," dated June 2008, including:
  - Letter prepared by CDM to Steve Morgan, dated June 25, 2008, providing responses to review comments regarding the Engineering Report
  - Section 1 – replacement pages to DEP Form #62-701.900(1), pages 11-15, 25-26, 32-35, and 39, undated
  - Section 2 – Letter prepared by CDM to John Morris, dated June 25, 2008, providing response to review comments regarding the hydrogeology and environmental monitoring [referred to as the "response letter"];
  - Appendix D – revised Table 3-1 (entitled "Construction Summary of Existing Monitor Wells, West Pasco County Class III Landfill), from document entitled "Water Quality Monitoring Plan for the West Pasco County Class III Landfill," prepared by CDM, dated March 2008 [referred to as the "WQMP document"]

My review focused on the hydrogeologic investigation and monitoring plan that had been prepared for the pending permit application. Additional information is needed to evaluate the adequacy of the proposed revisions to the monitoring plan. Please have the applicant provide responses to all comments that do not contain the phrase: "No additional information is requested." Please have the applicant provide revised submittals, or replacement pages to the submittals, that use a strike through and underline format, or similar format, to facilitate review. Please also have the applicant include the revision date as part of the header/footer for all revised or replacement pages (text, figures, tables, appendices, site plans, etc.).

The review comment numbers presented below are consistent with my memoranda dated February 28, 2007, May 17, 2007, and April 18, 2008. To facilitate the review process, those comments that were fully addressed by previous submittals have been deleted from this memorandum. The information requests have been referenced to sections of the permit application form and sections of the supporting documents, where appropriate, as presented below:

**Part I – Hydrogeological Investigation Requirements (Rule 62-701.410, F.A.C.)**

2. **I.1.a., through I.1.i., and I.2.:** The response letter referred to revised application form item #I.1.f. [page 25 of 40, provided in Section 1] that referenced Section 2.0 of the WQMP document. **No additional information is requested.**

**Part M – Water Quality and Leachate Monitoring Requirements (Rule 62-701.510, F.A.C.)**

3. **M.1.:** The response letter referred to revised application form items #M.1.a. through #M.1.h.(a) [pages 32/33 of 40, provided in Section 1] that referenced the appropriate sections of the WQMP document. **No additional information is requested.**

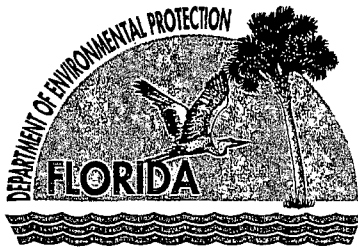
*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

9. **M.1.c.(6):** The response letter referred to revised Table 3-1 from the WQMP document, provided in Appendix D. Please submit additional revisions to Table 3-1 and Section 3.1 of the WQMP document to clarify the construction details of the existing wells to address the following:
- Section 3.1 indicated that wells 4MW-3A and 4MW-7 were fitted with screen materials across the former open hole sections, however Table 3-1 indicated that all four existing Floridan aquifer monitor wells [4MW-3A, 4MW-7, 4MW-8 and 4MW-9] were completed with screen. Please submit revision to Section 3.1 or Table 3-1 to address this apparent inconsistency.
  
  - The screen section elevation presented in revised Table 3-1 for well 4MW-3A [48.55 to 0.45 ft NGVD] does not appear to be consistent with the ground surface elevation [50.54 ft NGVD] and the screen section depth [22 to 50 feet below land surface], which would appear to result in a screen section elevation range from 28.54 to 0.54 ft NGVD. Please review the screen section elevation provided for well 4MW-3A and submit revisions, as appropriate.

This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the Department and may be subject to revision pursuant to additional information for further review.

I can be reached at (813) 632-7600, extension 336, to discuss these comments.

jrm



# Florida Department of Environmental Protection

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

45420	Inserted into <b>OCULUS</b>
Date: 4/21/08	Michael W. Sole Secretary
Initials: [Signature]	

Mr. John Power, Solid Waste Facility Manager  
Pasco County Utilities  
7530 Little Road  
New Port Richey, Florida 34654

April 18, 2008

**Re: West Pasco Class III Landfill  
Pending Permit No.: 26254-001-SO/T3, Pasco County  
3<sup>rd</sup> Request for Additional Information**

Dear Mr. Power:

This is to acknowledge receipt of the additional information dated October 5, 2007 (received October 8, 2007) and dated March 20, 2008 (received March 21, 2008); in support of a permit renewal application to operate the West Pasco Class III landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your application for a permit is incomplete. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

**Please be advised that the submittals referenced above were largely unresponsive to the Department's May 2, 2007 request for information. Please note that it has been 437 days since this permit application filed with the Department. In the event that a complete and timely response to this request for information is not received by the date listed at the end of this letter, the Department may deny the pending application.**

**GENERAL:**

1. The requested information and comments below do not necessarily repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.
2. Please submit **4 copies** of all requested information. Please specify if revised information is intended to supplement or replace previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be shaded ~~shaded~~ or similar notation method. This format will expedite the review process. Please include revision date on all revised pages.
3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.
4. Please be advised that although some comments may not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate.

The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)].

1. As part of the permit review process for the "original permit application in 1988 and subsequent permit renewal application in 1995," additional information in support of these permit applications, which may or may not have replaced originally submitted information was provided. Therefore, generic references to "Previously Submitted Information" do not provide adequate references to previously submitted information in accordance with Rule 62-701.320(10)(c), F.A.C. Previously provided information which is still valid may be referenced, but must be specifically referenced (by document name and date, submittal date, author, and specific section, page, and/or plan number) in order to evaluate its current validity. As previously requested, where "Previously Submitted Information" is noted, please provide specific references to the previously provided information (by document name and date, submittal date, author, and specific section, page, and/or plan number) that the applicant is utilizing in support of this permit application.

2. **Rule 62-701.320(7)(b), F.A.C. Application Form #62-701.900(1):** Please address the following comments regarding the permit application form and provide an application form with the revised information, where applicable:

a. Disposal Facility General Information - Part B.13: Please address the comment in John Morris' April 18, 2008 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

b. Landfill Permit Requirements - Part F4 and F5: Please provide replacement pages to the application form that reference the revised information submitted in support of Parts F4 and F5 and to address comments regarding Attachment 5 below.

c. Hydrogeological Investigation Requirements - Part I: Please address the comments in John Morris' April 18, 2008 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

d. Water Quality and Leachate Monitoring Requirements - Part M: Please address the comments in John Morris' April 18, 2008 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

e. Landfill Final Closure Requirements - Part P.1(a) through (c): The information provided in Section 3.4 of the Engineering Report does not appear to address the information required by Parts P.1.(a) through P.1.(c). Please provide replacement pages to the application form that reference the revised information submitted in support of Parts P.1.(a) through P.1.(c).

f. Landfill Final Closure Requirements - Part P.2(b)(1) through (3) and (5) through (6):

1) The previously submitted Closure Plan does not comply with the requirements of closure in Rule 62-701.600 F.A.C. (e.g., the proposed 18-inch clay cap does not meet current closure requirements for a landfill with a geosynthetic liner system). Please provide replacement pages to the application form that reference the revised information submitted in support of Parts P.2.(b)(1) through P.2.(b)(3).



2) The revised Long-Term Care Plan was not provided by Pasco County under separate cover as indicated in Parts P.2.(b)(5). Please provide replacement pages to the application form that reference the revised information submitted in support of Part P.2.(b)(5).

3) The revised financial assurance information was not provided by Pasco County under separate cover as indicated in Parts P.2.(b)(6). Please provide replacement pages to the application form that reference the revised information submitted in support of Part P.2.(b)(6).

**Engineering Report (Rule 62-701.730(2)(a), F.A.C.)**

3. Section 3.4.: The previously submitted and currently permitted construction/operation drawings for this facility do not provide for a 40-mil LLDPE and 24-inch protective soil layer final cover system. Please verify and provide revised closure drawings accordingly.

**Landfill Operation Plan (Rule 62-701.500, F.A.C.)**

Please provide the following additional information and revisions to the Operation Plan. Please provide a comprehensive Operation Plan that incorporates the responses to these comments and include new revision dates.

4. Section 2.b. - Contingency Operations for Emergencies:

a. The explanation provided for why wastes resulting from a natural disaster or other emergency will be stockpiled on an area that is not lined, when there are available areas at the facility that are lined and have minimal impact to the environment (to allow for waste sorting) is not acceptable. Please revise this section to either describe the temporary leachate containment system that will be provided on the limerock pad to prevent leachate runoff from the waste or to indicate that the waste will be temporary stored in the available lined areas of the Class III landfill.

5. Section 2.c. - Controlling Types of Waste Received at the Landfill:

a. Rule 62-701.500(1), F.A.C. requires that a Class III landfill have at least one trained spotter at each working face at all times when the landfill receives waste. Therefore daily spotting cannot occur at the scale house. Please provide specific procedures (e.g., temporary storage location, type of storage containers, size of storage containers, maximum storage time, etc.) for the daily spotting of incoming waste and the management of any unacceptable wastes, hazardous wastes or medical wastes that are unintentionally received by the facility at the working face.

6. Section 2.f. - Method and Sequence of Filling Waste:

a. The description of final cover in this section is inconsistent with that in Section 3.4 of the Engineering Report. Please verify and revise this section, as appropriate.

7. Figure 2: Figure 2 appears to show the fill sequence for Cell 1 and the first few lifts in Cell 2. Therefore, the fill sequence for Cells 2, 3, and 4 are not identical to Figure 2. As previously requested, please provide fill sequences for the remainder of Cells 2, 3 and 4.

8. Figure 4: The October 5, 2008 response letter indicates that when waste is placed in Cells 2 and 3, Valves 2 and 3 will be closed. Please explain how the leachate collected in both leachate collection lines in each cell will reach the respective leachate holding tank when Valves 2 and 3 are closed.

9. Attachment 2, Financial Assurance: The requested information was not provided under separate cover by Pasco County as indicated. Please address the comments in the Department's May 17, 2007 letter (attached) regarding the financial assurance cost estimates.

10. Attachment 3, Jet Cleaning Report: Since the results of cleaning for the leachate collection lines are not available, please conduct an additional jet cleaning and provide a report describing the jet cleaning activities and results (i.e., specific length of each line cleaned, type of cleaning, equipment used, general conditions of lines, leachate collected, etc.).

11. Attachment 5, Topographic Survey and Landfill Capacity Calculations:

a. Topographic Survey: Please provide a current topographic survey of the facility (including Cells 1-4) that identifies the cell boundaries for each cell.

b. Calculation Form:

1) There appear to be various typographic errors throughout this form. Please verify and revise as appropriate.

2) *Section 3.0(b)*: Please provide revised calculations based on the topographic survey provided in response to Comment #11.a.

3) *Section 4.0(b)*: Please provide revised calculations using the actual volume filled based on the topographic survey provided in response to Comment #11.a., rather than this assumption.

4) *Section 4.0(c)*: Please provide revised calculations using the actual volume filled based on the topographic survey provided in response to Comment #11.a., rather than this assumption.

5) *Section 4.0(d)*: The assumption that all cells have generally identical foot print areas appears to be inconsistent with the as-built drawings for the facility. Please verify and revise the calculations accordingly.

6) *Section 4.0(f)*: The assumption that the permitted elevation is +75 ft NGVD appears to be inconsistent with the permit and operation drawings for the facility. Please verify and revise the calculations accordingly.

7) *Section 4.0(g)*: The assumption that the base elevation is +55 ft NGVD appears to be inconsistent with the as-built drawings for the facility. Please verify and revise the calculations accordingly.

8) *Section 5.0*: The cell dimensions depicted on Diagram 1 appear to be inconsistent with the as-built drawings for the facility. Please verify and revise the calculations accordingly.

9) *Section 5.0*: Please revise all the assumptions and calculations in Section 5.0, as appropriate, based on all your responses to Comment 11.b.

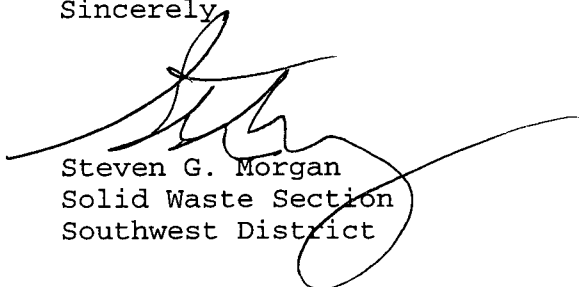
10) *Section 5.0*: Please provide the supporting information utilized in support of the assumed 10 ton/day acceptance rate.

**This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the Department and may be subject to revision pursuant to additional information and further review.**

Please respond by **June 2, 2008**, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than the above schedule, you should develop an alternate timetable for the submission of the requested information for Department review and consideration. If the Department does not receive a timely, complete response to this request for information, the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

Please provide **4 copies** of your response to this letter as one complete package. If there are points that must be discussed and resolved or you would like to set up a meeting to discuss this letter and subsequent submittals, please contact me at (813) 632-7600 ext. 385.

Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

Attachments

Cc: Aamod Sonawane, P.E., Camp Dresser & McKee Inc. (CDM), 1715 N. Westshore Blvd., Suite 875,  
Tampa, Florida 33607  
Fred Wick, FDEP Tallahassee  
John Morris, P.G., FDEP Tampa  
Steve Morgan, FDEP Tampa  
Susan Pelz, P.E., FDEP Tampa





# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

Mr. John Power Solid Waste Facility Manager  
Pasco County Utilities Services  
7530 Little Road, S-204  
New Port Richey, Fl. 34654

May 17, 2007

RE: West Pasco Class III Landfill, Pasco County  
Financial Assurance Cost Estimates  
Pending Permit No. 26254-001-SO/T3

Dear Mr. Power:

This letter is to acknowledge receipt of the revised cost estimates, prepared by Tetra Tech Engineering, dated and received March 22, 2007. The cost estimates received March 22, 2007 are not approved. The following information is needed to fully evaluate the estimates submitted:

## General Comments

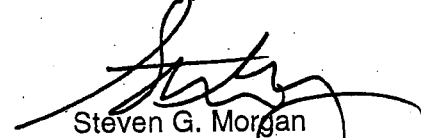
1. Please note that quantities and unit costs for closure and long-term care items may be added or changed based on comments and revisions to the above referenced permit application, therefore the proposed closure and long-term care costs may need to be revised accordingly.
2. Based on your response to the comments provided below, please provide a revised DEP Form 62-701.900(28) that incorporates all proposed changes to the closure and long-term care cost estimates and is signed by both the engineer preparing the cost estimate and the owner/operator.
3. The closing and long-term care cost estimates provided are based on a closure design (e.g. soil subgrade/40 mil synthetic liner/top soil protective layer, stormwater side slope conveyances, passive gas wells, etc.) inconsistent with the closure plan and design referenced in the above referenced permit application. Please provide revised closing and long-term care estimates, as applicable, consistent with the proposed closure and long-term care plan and design of the facility. These cost estimates will be reviewed in its entirety after receipt of this information.
4. Cost estimates provided as part of permit renewal shall be revised cost estimates and include the submittal of explanations and calculations to support quantities provided. The information, calculations, and/or assumptions utilized in support of the estimated unit quantities were not provided. This comment was previously provided in the Department's February 28, 2007 financial assurance RAI letter. Please provide this information.

5. Revised cost estimates cannot be based on inflation adjustment of previously approved costs, or be based on the costs for the County to perform the work. Therefore costs "obtained in-house or inflated from previous submittals..." cannot be utilized for estimated unit costs for closure. This comment was previously provided in the Department's February 28, 2007 financial assurance RAI letter. Please provide current third-party quotes to support all unit costs.

6. The third-party quote provided by Goodwin Brothers Construction included a cost for "Synthetic-40 mil" which does not specify what type of liner the quote is based on (e.g. HDPE, LLDPE, PVC, etc.). Please provide a third-party quote that provided this information. Please provide supporting documentation of Goodwin Brothers Construction's experience in liner installation or provide a third-party quote from a firm with adequate experience in liner installation.

The Department requests that two copies of all information be provided to the Solid Waste Section, FDEP, and Tampa office within thirty (30) days of this notice. In order to expedite the review of this information, please forward all responses related financial assurance cost estimates directly to the undersigned. If you have any questions, you may contact me at (813) 632-7600 ext. 385.

Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

SM/sgm

cc: Robert J. Sigmond, Pasco County, 7530 Little Road, New Port Richey, Florida 34654  
Aamod Sonawane, P.E., CDM Inc., 1715 N. Westshore Blvd., Suite 875, Tampa, Florida 33607  
Andrew T. Woodcock, MBA, P.E., Tetra Tech, 201 East Pine St., Suite 1000, Orlando, Florida 32801  
Fred Wick, FDEP Tallahassee w/attachment  
Susan Pelz, P.E., FDEP Tampa

Memorandum

TO: Steve Morgan  
FROM: John Morris, P.G. JRM  
DATE: April 18, 2008  
SUBJECT: West Pasco Class III Landfill, Operation Permit Application  
Pending Permit No. 26254-001-SO, Pasco County  
Hydrogeologic and Environmental Monitoring Review Comments (Responses to RAI #2)  
cc: Susan Pelz, P.E.

I have reviewed portions of the materials submitted to the Department in support of the referenced operation permit renewal application for the West Pasco Class III Landfill, prepared by CDM on behalf of Pasco County Utilities, received October 8, 2007, November 6, 2007, December 28, 2007 and March 21, 2008. These materials were submitted in response to the Department's letter dated May 18, 2007 which requested additional information regarding the pending permit renewal application, and included the following:

- Document entitled "Response to FDEP's 2<sup>nd</sup> Request for Additional Information on West Pasco Class III Landfill, Operations Permit Renewal Application, Pending Permit #26254-001-SO/T3, Pasco County, Florida," dated October 2007, received October 8, 2007 including:
  - Letter prepared by CDM, dated October 5, 2007
  - Section 2 - "Response to John Morris Memorandum Dated May 17, 2007," prepared by CDM, dated October 5, 2007 [referred to as the "CDM response"];
- Letter prepared by CDM dated November 5, 2007, received November 6, 2007, transmitting the locations and construction details of two deep monitor wells (Floridan aquifer), prepared by QORE Property Sciences, dated November 2, 2007
- Letter prepared by CDM dated and received December 28, 2007, describing the locations and construction details of two deep monitor wells (Floridan aquifer)
- Letter prepared by CDM dated March 20, 2008, received March 21, 2008, transmitting the following:
  - Document entitled "Water Quality Monitoring Plan for the West Pasco County Class III Landfill," prepared by CDM, dated March 2008 [referred to as the "WQMP document"]

Please note that it appears the proposed monitor well locations and construction details transmitted by the above-referenced CDM letters dated November 5, 2007 and December 28, 2007 have been wholly replaced by the information presented in the WQMP document. Accordingly, this memorandum does not provide review comments regarding the information transmitted by these two CDM letters but limited the review of proposed changes to the monitoring plan for the West Pasco Class III Landfill to the information provided by the WQMP document.

My review focused on the hydrogeologic investigation and monitoring plan that had been prepared for the pending permit application. Additional information is needed to evaluate the adequacy of the proposed revisions to the monitoring plan. Please have the applicant provide responses to all comments that do not contain the phrase: **"No additional information is requested."** Please have the applicant provide revised submittals, or replacement pages to the submittals, that use a strike-through and underline format, or similar format, to facilitate review. Please also have the applicant include the revision date as part of the header/footer for all revised or replacement pages (text, figures, tables, appendices, site plans, etc.).

The review comment numbers presented below are consistent with my memoranda dated February 28, 2007 and May 17, 2007. To facilitate the review process, those comments that were fully addressed by previous submittals have been deleted from this memorandum. The information requests have been referenced to sections of the permit application form and sections of the supporting documents, where appropriate, as presented below:

**Part B – Disposal Facility General Information**

1. **B.13.:** The CDM response indicated that the property that includes the West Pasco Class III landfill is recorded as a disposal site in the County Land Records. **No additional information is requested.**

**Part I – Hydrogeological Investigation Requirements (Rule 62-701.410, F.A.C.)**

2. **I.1.a., through I.1.i., and I.2.:** The CDM response indicated that the best available copies of Sheet 1 (Aerial/Topographic Site Plan), Sheet 2 (Soil Profiles), and Plate 2 (USDA Vicinity map) of the document entitled “Summary Report, Geotechnical/Hydrogeological Investigation, Proposed Class III Sanitary Landfill, Hays Road Site, Pasco County, Florida,” prepared by Jammal & Associates, Inc. [“Jammal report”], dated May 26, 1987 were provided. The CDM response also indicated that neither Pasco County nor CDM have additional copies of the Jammal report that provide legible copies of the above-referenced excerpts. Please submit a revised application form for item #I.1.f. [page 25 of 40] that references Section 2.0 of the WQMP document.

**Part M – Water Quality and Leachate Monitoring Requirements (Rule 62-701.510, F.A.C.)**

3. **M.1.:** The CDM response referred to the discussions between the County, CDM and the Department regarding the monitoring plan for the West Pasco Class III landfill during the meeting conducted on August 6, 2007. Based on subsequent conversations following receipt of the CDM letters dated November 5, 2007 and December 28, 2007, a replacement monitoring plan was developed for the facility (i.e., the WQMP document). As indicated in Section 1 of the WQMP document, it replaces the previously submitted monitoring plan information for the facility (document entitled “Water Quality Monitoring Plan Evaluation, 2004 – 2006, West Pasco Class III Landfill” [WQMPE], prepared by MACTEC Engineering and Consulting, Inc., dated August 3, 2006, and the above-referenced Jammal report). Please submit a revised application form for items #M.1.a., through #M.1.h.(1) [pages 32/33 of 40] to reference the appropriate sections of the WQMP document, as follow:

- M.1.a. – WQMP document, Section 1
- M.1.b. – WQMP document, Section 4.1
- M.1.c.(1) – WQMP document, Section 3.1
- M.1.c.(2) – WQMP document, Section 3.1.1
- M.1.c.(3) – WQMP document, Section 3.2
- M.1.c.(4) – WQMP document, Table 3-1
- M.1.c.(5) – WQMP document, Section 3.1
- M.1.c.(6) – WQMP document, Section 3.1.3 and Table 3-1
- M.1.c.(7) – WQMP document, Section 3.1
- M.1.d.(1) – WQMP document, Section 3.3
- M.1.e. – WQMP document, Section 3.2
- M.1.f.(1) – WQMP document, Section 4.2
- M.1.f.(2) – WQMP document, Section 4.3
- M.1.f.(3) – WQMP document, Section 4.2
- M.1.f.(4) – WQMP document, Section 4.4
- M.1.g. – WQMP document, Sections 5.1 and 5.2
- M.1.h.(1) – WQMP document, Section 4.5

Please note that the items in Part M of the application form not listed above remain unchanged, including:

- M.1.c.(8) – N/A
- M.1.d.(2) – N/A
- M.1.h.(2) – document entitled “Water Quality Monitoring Plan Evaluation, 2004 – 2006, West Pasco Class III Landfill,” prepared by MACTEC Engineering and Consulting, Inc., dated August 3, 2006

6. **M.1.c.(1):** The discussion of detection well locations provided in Section 3.1 of the WQMP document was sufficient to meet the requirements of Rule 62-701.510(3)(a), F.A.C. **No additional information is requested.**

7. **M.1.c.(2):** The discussion of existing wells 2MW-8, 4MW-8 and 2MW-10 being designated as compliance wells provided in Section 3.1.1 of the WQMP document was sufficient to meet the requirements of Rule 62-701.510(3)(b), F.A.C. **No additional information is requested.**
8. **M.1.c.(5):** The discussion of well spacing provided in Section 3.1 of the WQMP document was sufficient to meet the requirements of Rule 62-701.510(3)(d)3, F.A.C. **No additional information is requested.**
9. **M.1.c.(6):** The discussion of well screen sections for the proposed monitor wells provided in Section 3.1.3 of the WQMP document was sufficient to address the requirements of Rule 62-701.510(3)(d)4, F.A.C. Table 3-1 of the WQMP document provided the construction details of the existing monitor wells, however it appeared to be inconsistent with Table 1 entitled "Ground Water Monitor Well Construction Details, West Pasco Class III Landfill," provided as Appendix D of the "Response to FDEP February 28, 2007 Comments," prepared by CDM, dated April 2007. Please review the following inconsistencies and submit revisions to Table 3-1, as appropriate:
- Wells 4MW-3A, 4MW-8 and 4MW-9 were indicated to be completed as "open hole" in Table 1, while they were indicated to be "screened" in Table 3-1
- In addition, the screen section elevation presented in Table 3-1 for well 4MW-3A does not appear to include the conversion between NAVD and NGVD. Based on the ground elevation and total depth provided in Table 3-1, it appears that the screen section elevation would be 28.54 to 0.54 ft NGVD. Please review the screen section elevation provided for well 4MW-3A and submit revisions, as appropriate.
10. **M.1.c.(7):** The discussion of well abandonment procedures provided in Section 3.1 of the WQMP document was sufficient to address the requirements of Rule 62-701.510(3)(d)5, F.A.C. **No additional information is requested.**
13. **M.1.e.:** The discussion of leachate sampling provided in Section 3.2 of the WQMP document was sufficient to address the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C. **No additional information is requested.**
14. **M.1.f.(1):** The parameter lists referenced in Section 4.2 of the WQMP document were sufficient to address the requirements of Rule 62-701.510(6), F.A.C. **No additional information is requested.**
16. **M.1.g.:** The discussion of the criteria that require the initiation of evaluation monitoring, prevention measures, and corrective action provided in Sections 5.1 and 5.2 of the WQMP document was sufficient to address the requirements of Rule 62-701.510(7), F.A.C. **No additional information is requested.**
17. **M.1.h.(1):** The discussion of data reporting provided in Section 4.5 of the WQMP document was sufficient to address the requirements of Rule 62-701.510(9)(a), F.A.C. **No additional information is requested.**
18. **M.1.h.(2):** The following comments that refer to sections of the GWMPE:

Section 1.3.1 – Water Quality Monitoring Plan

- b. The well construction details for the existing wells was provided in Table 3-1 of the WQMP document. **No additional information is requested.**

Section 1.3.2 – Leachate Monitoring Plan

- d. Leachate sampling and analysis was discussed in Section 4.3 of the WQMP document. **No additional information is requested.**

Section 2.4.3 – Ground Water Gradient



f. Calculation of hydraulic gradient was presented in Section 6 of the WQMP document. **No additional information is requested.**

Section 2.4.4 – Ground Water Flow Velocity

g. Calculation of ground water velocity in the Floridan aquifer was presented in Section 6 of the WQMP document. **No additional information is requested.**

This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the Department and may be subject to revision pursuant to additional information for further review.

I can be reached at (813) 632-7600, extension 336, to discuss these comments.

jrm



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

May 5, 2008

Dept. Of Environmental Protection

MAY 07 2008

Southwest District

Mr. John Power  
West Pasco County Class III  
14230 Hays Road  
Spring Hill, FL 34610

Dear Mr. Power:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III (located at 14230 Hays Road, Spring Hill) in Pasco County is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2009**. The receipt number for the registration fee you paid is 623290.

You must comply with the requirements specified in Rule 62-709.320, Florida Administrative Code (F.A.C.), in order to maintain qualification for the registration program. A summary of the operating requirements is enclosed.

If you need further information, please contact me at the above address, Mail Station 4565, telephone 850/245-8747, or email Francine.Joyal@dep.state.fl.us.

Sincerely,

Francine Joyal  
Environmental Specialist

Enclosure

cc: Susan Pelz, Southwest District

## Evans, Roger

---

**From:** Sonawane, Aamod [SonawaneAS@cdm.com]  
**Sent:** Friday, February 08, 2008 2:47 PM  
**To:** Morris, John R.; Evans, Roger  
**Cc:** Gorrie, Jason; Pelz, Susan; John Power; Rojas, David  
**Subject:** RE: Responses for West Pasco Class III (pending renewal #26254-001-SO) and East Pasco Class I (pending renewal #26444-003-SO)

John/Roger,

We will submit the Water Quality Monitoring Plan for East Pasco Class I Landfill by March 7, 2008 and the one for West Pasco Class III Landfill by March 21, 2008.

Please let me know if you have any questions.

Thanks.

Aamod Sonawane, P.E.  
CDM  
Westshore Center  
1715 North Westshore Boulevard, Suite 875  
Tampa, Florida 33607  
813-281-2900 (Office - Main)  
813-262-8866 (Office - Direct)  
813-340-7168 (Cell)  
813-288-8787 (Fax)

---

**From:** John Power [mailto:jpower@pascocountyfl.net]  
**Sent:** Friday, February 08, 2008 2:39 PM  
**To:** Morris, John R.  
**Cc:** Gorrie, Jason; Sonawane, Aamod; Evans, Roger; Pelz, Susan  
**Subject:** RE: Responses for West Pasco Class III (pending renewal #26254-001-SO) and East Pasco Class I (pending renewal #26444-003-SO)

John, sorry for not getting back to you sooner, but I have been out of the office for the past couple of days. I spoke with both Jason and Aamod and they will supply you with the schedule they have put together to get both sites moving. If you need anything from me, please call me @ 727-856-0119 or email me.

Thanks, John.

---

**From:** Morris, John R. [mailto:John.R.Morris@dep.state.fl.us]  
**Sent:** Wednesday, February 06, 2008 10:00 AM  
**To:** John Power  
**Cc:** gorriejm@cdm.com; Sonawane, Aamod; Evans, Roger; Pelz, Susan  
**Subject:** Responses for West Pasco Class III (pending renewal #26254-001-SO) and East Pasco Class I (pending renewal #26444-003-SO)

John:

Do you have an anticipated schedule for submitting supplemental information regarding changes to the monitoring plans for the two referenced pending permit renewal applications? We're trying to get a handle on the workload related to the review of upcoming submittals.

It is requested that the County consider submitting responses at least a week apart for the referenced facilities to stagger our deadlines for completing the reviews of the information submitted. Please coordinate the submittal schedule with Roger Evans via e-mail at [roger.evans@dep.state.fl.us](mailto:roger.evans@dep.state.fl.us) or via telephone at 813-632-7600, extension 382.

Your assistance in this matter is appreciated.

John

\*\*\*\*\*

John R. Morris, P.G.

FDEP SW District Office, Solid Waste Section

13051 N. Telecom Pkwy.

Temple Terrace, FL 33637-0926.

Telephone: 813-632-7600, ext. 336; suncom 514-9155, ext. 336

Facsimile: 813-632-7664

E-mail: [john.r.morris@dep.state.fl.us](mailto:john.r.morris@dep.state.fl.us)

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*

# CDM Transmittal

## CDM

1715 North Westshore Boulevard, Suite 875  
Tampa, Florida 33607  
Tel. 813-281-2900  
Fax 813-288-8787

**To:** John Morris, P.G. **From:** Aamod Sonawane, P.E.  
**Organization/Address:** Florida Department of Environmental Protection  
Solid Waste Section Southwest District  
13051 North Telecom Parkway  
Temple Terrace, FL 33637-0926 **Date:** November 5, 2007

Dept. Of Environmental Protection

NOV 06 2007

Southwest District

**Re:** West Pasco Class III Pending Permit Number 26254-001-SO/T3  
East Pasco Class I Pending Permit Number 26444-003-SO/01  
Proposed Well Locations and Construction Details

**Job #:** 6104-55557 TASK3-07.ODC

**Via:** *Mail:* **Overnight:** X *Courier:*

**Enclosed please find:** Proposed Well Locations and Construction Details at West Pasco Class III landfill and East Pasco Class I Landfill

For your information

For your review

For your signature

X

Approved

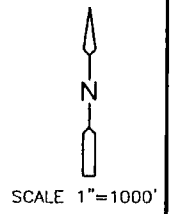
Approved as noted

Returned to you for correction

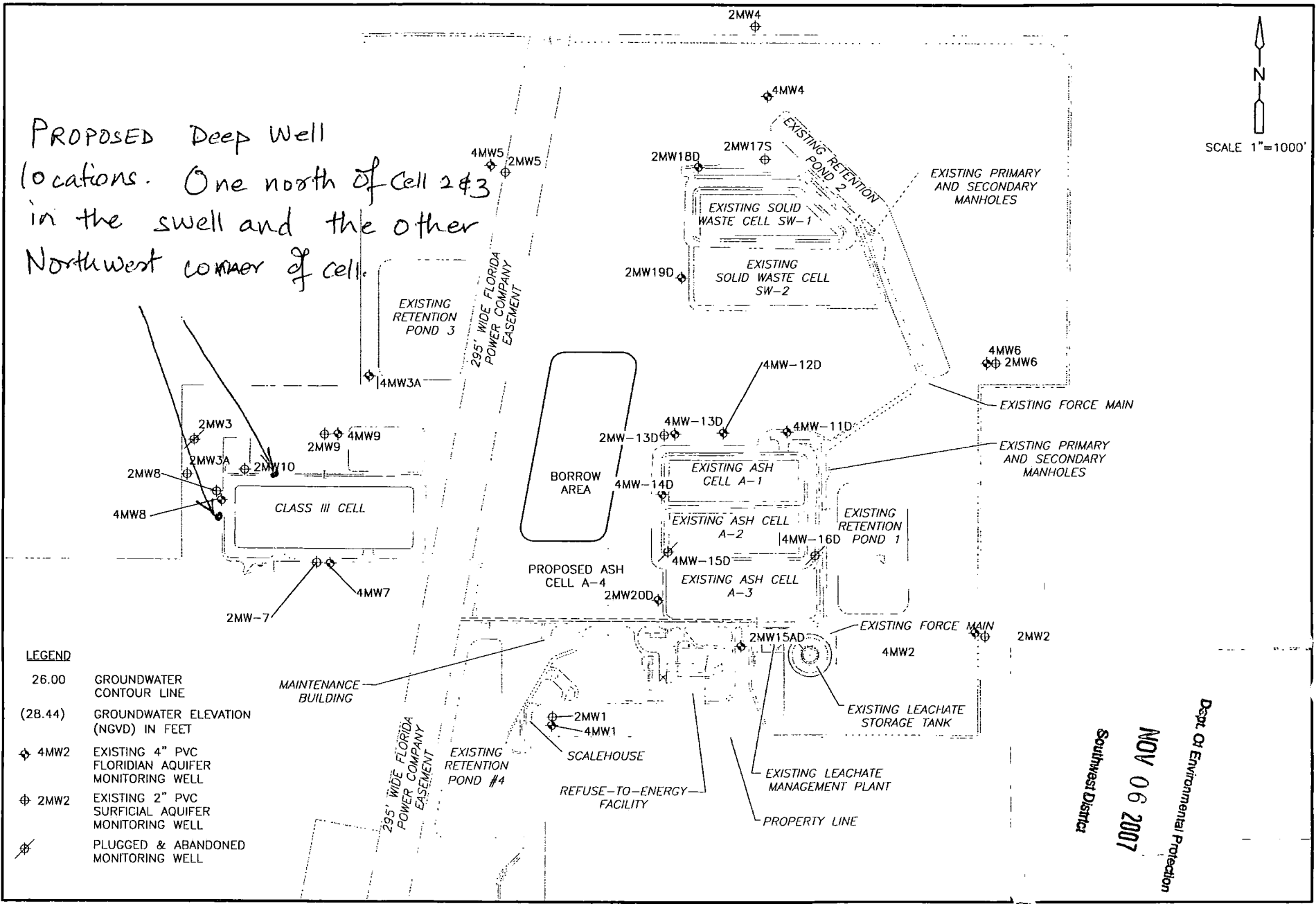

As per your discussion with Mr. John Power (Pasco County), attached please find proposed new well locations and construction details (two signed and sealed copies) for the referenced landfills. Please let me know if you have any questions.

Signed

PROPOSED Deep Well locations. One north of cell 2#3 in the swell and the other Northwest corner of cell.



L:\6104\44821\Figures\figure-01 03/22/07 06:33 austjd XREES: e-base, CE\_FM



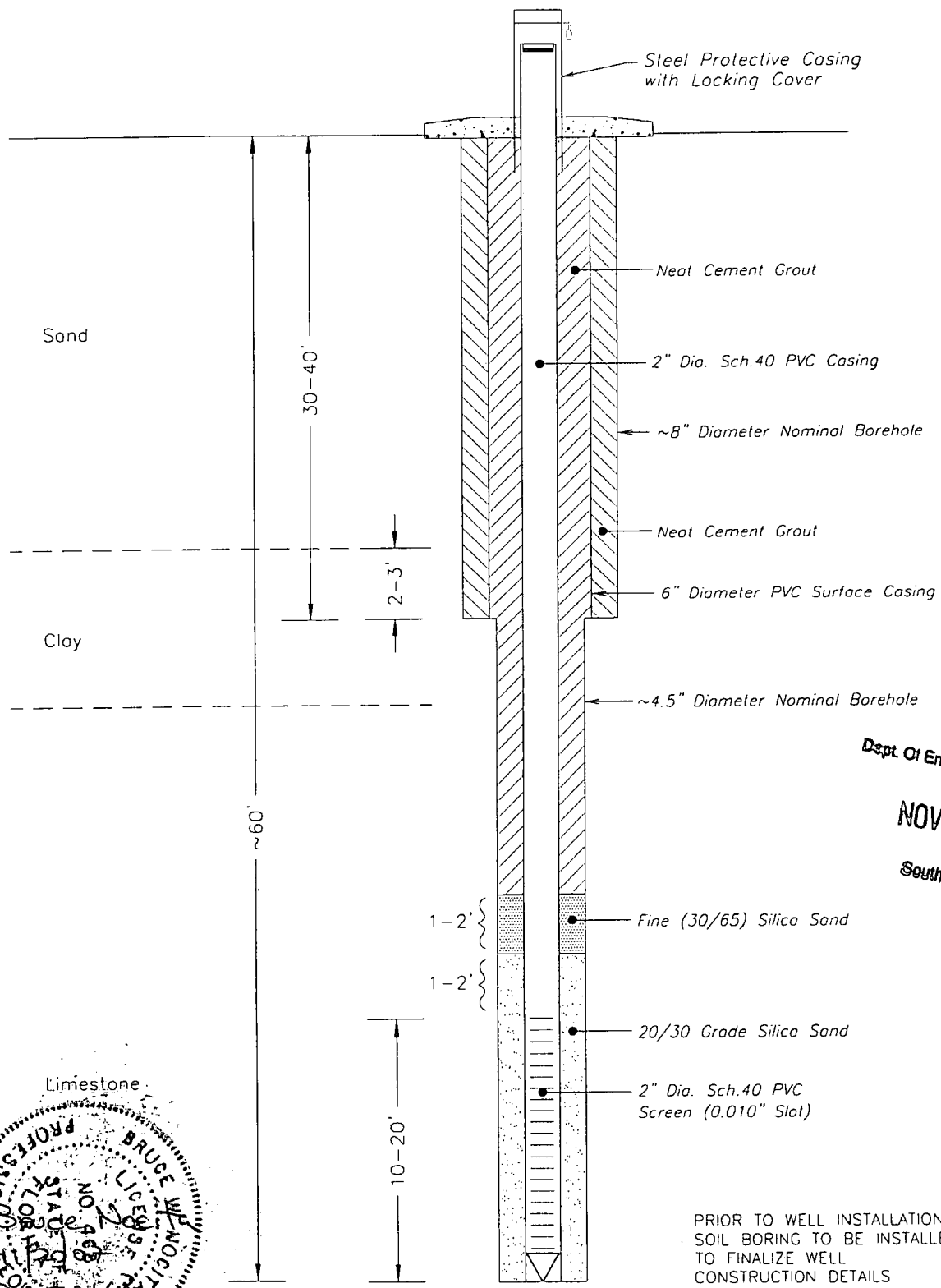
**LEGEND**

26.00	GROUNDWATER CONTOUR LINE
(28.44)	GROUNDWATER ELEVATION (NGVD) IN FEET
◆ 4MW2	EXISTING 4" PVC FLORIDIAN AQUIFER MONITORING WELL
⊕ 2MW2	EXISTING 2" PVC SURFICIAL AQUIFER MONITORING WELL
⊗	PLUGGED & ABANDONED MONITORING WELL

Dept. Of Environmental Protection  
 NOV 06 2007  
 Southwest District

West Pasco Landfill And  
 Resource Recovery Facility  
 Pasco County Board Of County Commissioners  
 Utilities Services Branch, Pasco County, Florida

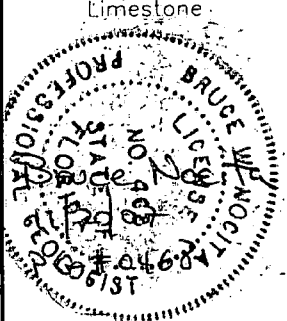




Dept. Of Environmental Protection  
 NOV 06 2007  
 Southwest District

PRIOR TO WELL INSTALLATION  
 SOIL BORING TO BE INSTALLED  
 TO FINALIZE WELL  
 CONSTRUCTION DETAILS

2442\PROPOSED WELL CON. PASCO CO. LANDFILL\WP FLORIDAN\WELL.DWG



PASCO COUNTY

DATE  
11/2/07

JOB NO.  
07-1281

PLATE NO.  
3



1211 Tech Blvd. Suite 200 Tampa, Florida 33619 (813) 623-6646

PROPOSED WELL CONSTRUCTION  
 WEST PASCO FLORIDAN WELLS

PASCO COUNTY LANDFILL

**Evans, Roger**

---

**From:** Evans, Roger  
**Sent:** Wednesday, September 12, 2007 9:02 AM  
**To:** 'Gorrie, Jason'  
**Cc:** Morris, John R.; John Power  
**Subject:** RE: Pasco County

Dear Mr. Gorrie,

This is to acknowledge receipt of your time extension request. The Department does not object to your request for an extension of time to complete your responses to West Pasco Class III landfill (RAI #2) and East Pasco Class I landfill (RAI #1). We would however encourage you to submit these two projects at least a week apart so that they are placed on a different schedule to expedite the review.

Should you have any questions, please call or email (email is better).

Sincerely,  
Roger Evans

-----Original Message-----

**From:** Gorrie, Jason [mailto:GorrieJM@CDM.com]  
**Sent:** Tuesday, September 11, 2007 1:20 PM  
**To:** Evans, Roger  
**Cc:** Sonawane, Aamod; Liu, Wei-Ting; John Power  
**Subject:** Pasco County

Dear Mr. Evans,

At the end of our permitting meeting held on August 6, 2007, we discussed that 60-day time extension will be granted to respond to the RAI #2 for West Pasco Class III landfill and RAI #1 for East Pasco Class I landfill. Please consider this as a follow-up email requesting the 60-days extension from the date of the meeting (August 6th, 2007). Pasco County will submit a well construction schedule for both landfills under a separate cover.

Please do not hesitate to call me if you have any questions.  
Thanks.

*Jason M. Gorrie, P.E.*  
*Principal*  
CDM  
1715 N. Westshore, Suite 875  
Tampa, Florida 33607  
*Office:* (813) 281-2900  
*Fax:* (813) 288-8787  
*Cell:* (813) 334-8178  
*Email:* gorriejm@cdm.com  
*Web:* <http://www.cdm.com>



**Evans, Roger**

---

**From:** Evans, Roger  
**Sent:** Tuesday, August 28, 2007 2:22 PM  
**To:** 'jpower@pascocountyfl.net'; 'gorriejm@cdm.com'  
**Cc:** Morris, John R.  
**Subject:** West Pasco Class III (26254-001-SO/T3), East Pasco Class I (26444-003-SO/01)

Gentlemen:

At the end of our permitting meeting held on August 6, 2007, we discussed that an extension of time request to respond to the RAI #2 for West Pasco Class III landfill and RAI #1 for East Pasco Class I landfill should be submitted to the Department. A follow-up telephone call was initiated by the Department on 8/21/07 to Ms. Wei Liu (CDM) who indicated that she would discuss the time frames with her project manager and submit the time extension requests for each of the projects. Please provide the anticipated dates for submitting responses for these two permit renewal applications (via email or normal mail) for our files.

If you have any questions, please call or email (email is better).

Sincerely,

*Roger Evans*  
**Environmental Engineer**  
DEP Southwest District  
13051 N. Telecom Parkway  
Temple Terrace, FL 33637  
(813)632-7600, Ext. 382  
[roger.evans@dep.state.fl.us](mailto:roger.evans@dep.state.fl.us)

8/28/2007



# Florida Department of Environmental Protection

Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

DATE: August 6, 2007 TIME: 1330

LOCATION/CONFERENCE ROOM: # 225

SUBJECT: EAST PASCO CLASS I / WEST PASCO CLASS III - CRI LETTERS

### ATTENDEES

<u>NAME</u>	<u>AFFILIATION</u>	<u>TELEPHONE NUMBER</u>
<u>Susan Pelz</u>	<u>DEP SW</u>	<u>813-632-7600 x386</u>
<u>John Morris</u>	<u>FDEP SOLID WASTE SECTION</u>	<u>813-632-7600 x336</u>
<u>Roger Evans</u>	<u>"</u>	<u>" x 382</u>
<u>Jacsen Gornie</u>	<u>CDM</u>	<u>813 281-2900</u>
<u>Wei Liu</u>	<u>CDM</u>	<u>" " "</u>
<u>John Power</u>	<u>PASCO County</u>	<u>727-856-0119</u>



## Meeting Agenda

Date: August 11<sup>th</sup>, 2007

Room: #225

Time: 1:30pm ~ 3:30pm

### Items of discussion

#### 1.) East Pasco Class I RAI Issues

##### Issues

- a.) Previously submitted information
- b.) Groundwater monitoring plan
  - a. Well spacing
  - b. Benzene concentrations
- c.) Landfill Gas Migration
- d.) Long term care coordination

#### 2.) West Pasco Class III RAI Issues

##### Issues

- a.) Previously Submitted Information
- b.) Groundwater Monitoring Plan
  - a. Well Spacing
- c.) Long term care coordination

#### 3.) Regional Landfill Considerations

#### 4.) Schedule for Responses

SEP  
RE  
JRM

JASON GORME } CDM  
WEI LIU }  
JOHN POWELL }

01/16/07  
PS  
JRM NOTES

EAST PASCO CLASS I LF } RAI LETTERS  
WEST PASCO CLASS III LF }

EAST PASCO - 6/15/07 RAI #1 LETTER

- PREVIOUSLY SUBMITTED INFO.
- PROHIBITION INFO - NEW IS PROBABLY EASIER
- WELL INFORMATION INFO - NEEDS TO BE UPDATED FOR 1-MILE RADIUS
- HYDROLOG. INVESTIGATION - UPDATED
- SW-1B WATER QUALITY
- SCHEDULE FOR IMPLEMENTING INVESTIGATION OF BENZENE IN PROXIMITY TO SW-17/SW-18 ; ONE FUNDAM. WEL. ADJACENT TO SW-17/SW-18 ; ONE SHALLOW WEL. NEAR PROPOSED BOUNDARY ; CAN BE APPROVED SEPARATELY SO IT CAN BE IMPLEMENTED PRIOR TO COMPLETION OF PERMIT REVIEW

WEST PASCO CLASS III RAI #2 LETTER

- JRM ITEM #2 - NO MORE LEGIBLE COPIES AVAILABLE (ATTACHMENTS TO JANUARY 1987 REPORT)
- CEILING REQUIREMENTS - GEOSYNTHETIC FOR BOTTOM - CEILING PLAN MUST SPEC A GEOSYNTHETIC FOR CAP (PLASTIC OR GCL)
- NATURAL DISASTER DEBRIS STORAGE AREA ; COUNTY DOES NOT WANT TO CONSUME THE CEILING III AIRSPACE FOR DISPOSAL - ASKED FOR CLARIFICATION IN RESPONSE
- LOAD CHECKING PROGRAM IN OPS. PLANS - DESCRIPTION OF PROHIBITED WASTES IS FOR EVOLVING LOAD

Pasco County

8/6/07

## East Pasco

Previously submitted info -

Hydrogeological investigations - previous Law Engineering info

Monitoring plan needs to be based on hydro investigation that have been done need to demonstrate that monitoring plan is based on hydro

- end up w/ biennial report w/ more info in hydro section (intro section) instead of referencing old info

- could give us replacement section ~~in~~ in biennial report

- need to go back as far as CAP/CAR does from before

- talk about: rate/direction flow, background water quality, hydro connection, ....

~~Groundwater~~

Groundwater Monitoring Plan -

- surficial } 62-701.510(3)(d)3

- Floridan } 62-701.510(3)(d)3

- south end may be background

Benzene -

- need wells @ edge of 200 (100ft on prep line) near MW-17 & 18

- deep well near 17, 18
- shallow @ pump line
- want to propose new wells & sampling its part of permit renewal
- we could do this if schedule is aggressive
  - if results end up ~~being~~ showing impacts can't address in permit
  - Need to go different path (62-780)
- well spacing
  - better to plan deep/shallow if you can know lithology better where there's

### LFG -

- > they will try to make construction details for flush grade near 17, 18 to work for gas also

### Inspection from <sup>7/18/07</sup> ~~environmental~~

- regarding filling low areas
- John Power will send response w/ timeline

## West Ptsc

Previously submitted info -

- Jammal - cross-sections
- no legible copies available

Hydro -

- wells are too far away & too deep
- need minimum 2 downgradient
- need shallow & deep  $\rightarrow$  1 on north side, 1 on west side for west 2 cells
- can discuss if never any water in shallow, then don't need shallow
- will propose 2 on north & 1 on west

Although they won't get to east 2 cells in this permit <sup>east</sup>

- won't build it, <sup>now on</sup> but will permit it & build later
- can use existing MW-7 as background



# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

May 18, 2007

Mr. John Power, Solid Waste Facility Manager  
Pasco County Utilities  
7530 Little Road  
New Port Richey, Florida 34654

**Re: West Pasco Class III Landfill  
Pending Permit No.: 26254-001-SO/T3, Pasco County  
2<sup>nd</sup> Request for Additional Information**

Dear Mr. Power:

This is to acknowledge receipt of the permit renewal application dated April 2007, (received April 19, 2007), to operate a Class III landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your application for a permit is incomplete. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

**GENERAL:**

1. The requested information and comments below do not necessarily repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.
2. Please submit **4 copies** of all requested information. Please specify if revised information is intended to supplement or replace previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be shaded **shaded** or similar notation method. This format will expedite the review process. Please include revision date on all revised pages.
3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.
4. Please be advised that although some comments may not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate.



The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)]. Please note that the information requested in this letter are numbered the same as the Department's March 2, 2007 letter. No additional information is requested for Comments #2b, 2d, 2e, 2f, 2h, 3b, 5, 6, 7, 8, 9a, 9c, 9d, 10a, 10b, 12a, 12b, 14a, 17.

1. As part of the permit review process for the "original permit application in 1988 and subsequent permit renewal application in 1995," additional information in support of these permit applications, which may or may not have replaced originally submitted information was provided. Therefore, generic references to "Previously Submitted Information" do not provide adequate references to previously submitted information in accordance with Rule 62-701.320(10)(c), F.A.C. Previously provided information which is still valid may be referenced, but must be specifically referenced (by document name and date, submittal date, author, and specific section, page, and/or plan number) in order to evaluate its current validity. Where "Previously Submitted Information" is noted, please provide specific references to the previously provided information (by document name and date, submittal date, author, and specific section, page, and/or plan number) that the applicant is utilizing in support of this permit application.

2. **Rule 62-701.320(7)(b), F.A.C. Application Form #62-701.900(1):** Please address the following comments regarding the permit application form and provide an application form with the revised information, where applicable:

a. Disposal Facility General Information - Part B.13: Please address the comment in John Morris' May 17, 2007 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

c. Prohibitions - Part D: It does not appear that all the prohibitions (Rule 62-701.300, F.A.C.) were addressed in the "Previously Submitted Information." Please verify and provide a specific reference to where this information was provided in the previously submitted information or alternatively provide this information. See Comment #1.

g. Landfill Permit Requirements - Part F4 and F5: Please provide the supporting calculations and a current topographic survey utilized to obtain the provided remaining capacity of 45-55 years.

i. Hydrogeological Investigation Requirements - Part I: Please address the comments in John Morris' May 17, 2007 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

j. Water Quality and Leachate Monitoring Requirements - Part M: Please address the comments in John Morris' May 17, 2007 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

k. Gas Management System Requirements - Part O.1(a): Please revise the item in the application checklist to reference that the information is specifically located in Section 9 of the Operations Plan.

l. Gas Management System Requirements - Part O.2: Please revise the item in the application checklist to reference that the information is specifically located in Section 9 of the Operations Plan.

m. Gas Management System Requirements - Part O.3: Please revise the item in the application checklist to reference that the information is specifically located in Section 9 of the Operations Plan.

n. Landfill Final Closure Requirements - Part P.1(a) through (c):  
Please revise the item in the application checklist to reference that the information is specifically located in Section 3.4 of the Engineering Report.

o. Landfill Final Closure Requirements - Part P.2(b) (1)through(3)and (5) through (6): The previously submitted Closure Plan does not comply with the requirements of closure in Rule 62-701.600 F.A.C. (e.g., the proposed 18-inch clay cap does not meet current closure requirements for a landfill with a geosynthetic liner system). Please provide a revised Closure Plan which complies with the requirements.

p. Landfill Final Closure Requirements - Part P.2(b) (5) and Long-Term Care Requirements - Parts R.1. through R.4. : A review of Section 3 indicates there was no long-term care plan provided. Please provide a long-term care plan consistent with the Closure Plan and Financial Assurance.

**Rule 62-701.500, F.A.C. Operations Plan:**

Please provide the following additional information and revisions to the Operations Plan. Please provide a comprehensive Operations Plan that incorporates the responses to these comments and include new revision dates.

3. Section 2.b - Contingency Operations for Emergencies:

a. Please explain why wastes resulting from a natural disaster or other emergency will be stockpiled on an area that is not lined, when there are available areas at the facility that are lined and have minimal impact to the environment.

4. Section 2.c - Controlling Types of Waste Received at the Landfill:

a. This section appears to indicate that procedures for the removal of prohibited waste are in accordance with the loading checking program procedures. However it is not likely that the load checking program procedures (i.e., checking 3 loads per week) is appropriate for routine spotting and removal of prohibited materials. Please provide specific procedures (e.g., temporary storage location, type of storage containers, size of storage containers, maximum storage time, etc.) for the routine "**on a daily basis**" [Emphasis added] management of any unacceptable wastes, hazardous wastes or medical wastes that are unintentionally received by the facility.

b. Your response indicates that the facility will be limited to C&D wastes only and that Class III wastes are prohibited from being disposed of. Please verify if this is what the facility intends to do or revise the Operations Plan and Engineering Report accordingly.

9. Section 8 - Operation of Leachate Controls:

b. The response to this comment appears to be not complete. The rule reference of 62-701.510(8) (a) identified in the last paragraph, is incorrect. Please revise the text to state the reference is **62-701.510(8)(c) and (d) F.A.C.** [Emphasis added]

11. Section 11.d - Dust Control Methods: Please incorporate your response into the Operation Plan.

13. Figure 2: It appears that the "Previous Submitted Information" only identifies the fill sequence for Cell 1. Please provide fill sequences for the remainder of Cells 2, 3 and 4.

14. Figure 4:

b. The reference to the response provided to Comment #14a did not address this comment regarding the piping and valve configuration of Figure 4 of the Operating Plan. Please submit a revised figure that depicts the configuration of leachate piping when waste is being placed in Cells 2 and 3. (Distinguish between non-contact stormwater directed to swale and leachate pumped to holding Tanks 1 and 2).

15. Attachment 2, Financial Assurance: Please address the comments in the Department's May 17, 2007 letter (attached) regarding the financial assurance cost estimates. You may call Mr. Steve Morgan at (813)632-7600, ext. 385, to discuss this item.

16. Attachment 3, Jet Cleaning Report: The Rule 62-701.500(8)(h), F.A.C., requires that existing leachate collection systems shall be water pressure cleaned or inspected by video recording at the time of permit renewal, and the results of the collection system cleanings or inspections shall be available to the Department. If the results of cleaning for the leachate collection lines are not available then as required by the Rule the permittee shall conduct an additional cleaning and provide the results (i.e., specific length of each line cleaned, type of cleaning, equipment used, general conditions of lines, leachate collected, etc.).

Please **respond within 45 days** after you receive this letter, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 45 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Pursuant to the provisions of Rule 62-4.055(1), F.A.C., if the Department does not receive a timely, complete response to this request for information the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

You are requested to submit your response to this letter as one complete package. If there are points that must be discussed and resolved, please contact me at (813) 632-7600 ext. 382.

Sincerely,



Roger Evans  
Environmental Engineer  
Solid Waste Section  
Southwest District

Attachments

Cc: Aamod Sonawane, P.E., Camp Dresser & McKee Inc. (CDM), 1715 N. Westshore Blvd., Suite 875,  
Tampa, Florida 33607  
Fred Wick, FDEP Tallahassee  
John Morris, P.G., FDEP Tampa  
Steve Morgan, FDEP Tampa  
Susan Pelz, P.E., FDEP Tampa



# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

Mr. John Power Solid Waste Facility Manager  
Pasco County Utilities Services  
7530 Little Road, S-204  
New Port Richey, Fl. 34654

May 17, 2007

RE: West Pasco Class III Landfill, Pasco County  
Financial Assurance Cost Estimates  
Pending Permit No. 26254-001-SO/T3

Dear Mr. Power:

This letter is to acknowledge receipt of the revised cost estimates, prepared by Tetra Tech Engineering, dated and received March 22, 2007. The cost estimates received March 22, 2007 are not approved. The following information is needed to fully evaluate the estimates submitted:

## **General Comments**


1. Please note that quantities and unit costs for closure and long-term care items may be added or changed based on comments and revisions to the above referenced permit application, therefore the proposed closure and long-term care costs may need to be revised accordingly.
2. Based on your response to the comments provided below, please provide a revised DEP Form 62-701.900(28) that incorporates all proposed changes to the closure and long-term care cost estimates and is signed by both the engineer preparing the cost estimate and the owner/operator.
3. The closing and long-term care cost estimates provided are based on a closure design (e.g. soil subgrade/40 mil synthetic liner/top soil protective layer, stormwater side slope conveyances, passive gas wells, etc.) inconsistent with the closure plan and design referenced in the above referenced permit application. Please provide revised closing and long-term care estimates, as applicable, consistent with the proposed closure and long-term care plan and design of the facility. These cost estimates will be reviewed in its entirety after receipt of this information.
4. Cost estimates provided as part of permit renewal shall be revised cost estimates and include the submittal of explanations and calculations to support quantities provided. The information, calculations, and/or assumptions utilized in support of the estimated unit quantities were not provided. This comment was previously provided in the Department's February 28, 2007 financial assurance RAI letter. Please provide this information.

5. Revised cost estimates cannot be based on inflation adjustment of previously approved costs, or be based on the costs for the County to perform the work. Therefore costs "obtained in-house or inflated from previous submittals..." cannot be utilized for estimated unit costs for closure. This comment was previously provided in the Department's February 28, 2007 financial assurance RAI letter. Please provide current third-party quotes to support all unit costs.

6. The third-party quote provided by Goodwin Brothers Construction included a cost for "Synthetic-40 mil" which does not specify what type of liner the quote is based on (e.g. HDPE, LLDPE, PVC, etc.). Please provide a third-party quote that provided this information. Please provided supporting documentation of Goodwin Brothers Construction's experience in liner installation or provide a third-party quote from a firm with adequate experience in liner installation.

The Department requests that two copies of all information be provided to the Solid Waste Section, FDEP, and Tampa office within thirty (30) days of this notice. In order to expedite the review of this information, please forward all responses related financial assurance cost estimates directly to the undersigned. If you have any questions, you may contact me at (813) 632-7600 ext. 385.

Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

SM/sgm

cc: Robert J. Sigmond, Pasco County, 7530 Little Road, New Port Richey, Florida 34654  
Aamod Sonawane, P.E., CDM Inc., 1715 N. Westshore Blvd., Suite 875, Tampa, Florida 33607  
Andrew T. Woodcock, MBA, P.E., Tetra Tech, 201 East Pine St., Suite 1000, Orlando, Florida 32801  
Fred Wick, FDEP Tallahassee w/attachment  
Susan Pelz, P.E., FDEP Tampa

# Florida Department of Environmental Protection

## Memorandum

**TO:** Roger Evans  
**FROM:** John Morris, P.G. *JM*  
**DATE:** May 17, 2007  
**SUBJECT:** West Pasco Class III Landfill, Operation Permit Application  
Pending Permit No. 26254-001-SO, Pasco County  
Hydrogeologic and Environmental Monitoring Review Comments (Responses to RAI #1)  
**cc:** Steve Morgan  
Susan Pelz, P.E.

I have reviewed portions of the materials submitted to the Department in support of the referenced operation permit renewal application for the West Pasco Class III Landfill, prepared by CDM on behalf of Pasco County Utilities, received April 19, 2007. These materials were submitted in response to the Department's letter dated March 2, 2007 which requested additional information regarding the pending permit renewal application and included the following:

- Document entitled "Response to FDEP's 1<sup>st</sup> Request for Additional Information on West Pasco Class III Landfill, Operations Permit Renewal Application, Pending Permit #26254-001-SO/T3, Pasco County, Florida," dated April 2007, including:
  - Letter prepared by CDM (Aamod S. Sonawane, P.E.), dated April 19, 2007
  - Section 1 – replacement pages to DEP Form #62-701.900(1), pages 8, 12 through 15, 25, 26, 29, 32 through 35, and 39, undated
  - Section 2 – Responses to FDEP February 28, 2007 Comments, West Pasco Class III Landfill – Operation Permit Application for Pending Permit #26254-001-SO (Hydrogeologic and Monitoring) for West Pasco Class III Landfill, 14230 Hays Road, Spring Hill, Pasco County, Florida," prepared by CDM, dated April 2007, signed/sealed April 16, 2007, including:
    - Letter prepared by CDM (David J. Rojas, P.G.), dated April 19, 2007 ("CDM response letter")
    - Appendix A – Document entitled "Summary Report, Geotechnical/Hydrogeological Investigation, Proposed Class III Sanitary Landfill, Hays Road Site, Pasco County, Florida," prepared by Jammal & Associates, Inc., dated May 26, 1987
    - Appendix A – April 2007 Updated Ground Water User Survey
    - Appendix A – Florida Department of Health, Bureau of Laboratories Certification for Pasco County Utilities Environmental Laboratory, State Code #E44123, effective July 1, 2006 through June 30, 2007
    - Appendix B – Updated Ground Water Monitor Well Survey, January 22, 2007
    - Appendix B – Revised October 2, 2006 Floridan Aquifer Contour Map
    - Appendix D – Class III Landfill, Ground Water Monitor Well Construction Details

My review focused on the hydrogeologic investigation and monitoring plan that had been prepared for the pending permit application. The review comment numbers presented below are consistent with my memorandum dated February 28, 2007. Additional information is needed to evaluate the adequacy of the monitoring plan. Please have the applicant provide responses to all comments that do not contain the phrase: **"No additional information is requested."** The comments have been referenced to the permit application form and sections of the supporting information.

Please have the applicant provide revised submittals, or replacement pages to the submittals, that use a ~~strike through~~ and underline format, or similar format, to facilitate review. Please also have the applicant include the revision date as part of the header/footer for all revised or replacement pages (text, figures, tables, appendices, site plans, etc.).

*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

**Part B – Disposal Facility General Information**

1. **B.13.:** The CDM response letter indicated that the Declaration to the Public will be filed at the County Clerk's office following the closure of the Class III landfill. Although the CDM response letter indicated that a revised application form for this item was included in Section 1, it appears that page 7 of the application form was not provided. Please submit a revised application form for this item that indicates a "No" response.

**Part I – Hydrogeological Investigation Requirements (Rule 62-701.410, F.A.C.)**

2. **I.1.a., through I.1.i., and I.2.:** The CDM response letter referred to these items on revised page 25 of the application form that referred to the information provided in Section 1, which included excerpts of the document entitled "Summary Report, Geotechnical/Hydrogeological Investigation, Proposed Class III Sanitary Landfill, Hays Road Site, Pasco County, Florida," prepared by Jammal & Associates, Inc. ("Jammal report"), dated May 26, 1987. The CDM response letter also indicated that the Jammal report contained the original ground water monitoring plan for the facility. Please submit legible copies of the following items presented in the Jammal report: Sheet 1 (Aerial/Topographic Site Plan); Sheet 2 (Soil Profiles); and, Plate 2 (USDA Vicinity map).

**Part M – Water Quality and Leachate Monitoring Requirements (Rule 62-701.510, F.A.C.)**

3. **M.1.:** The CDM response letter acknowledged this informational comment (memorandum dated February 28, 2007) which indicated that the document entitled "Water Quality Monitoring Plan Evaluation, 2004 – 2006, West Pasco Class III Landfill," prepared by MACTEC Engineering and Consulting, Inc. (MACTEC), dated August 3, 2006, was considered by the Department to be the "monitoring plan" for West Pasco Class III Landfill and that this document replaced all previously submitted monitoring plan documents. However, in the response to comment #4, below, the CDM response letter also indicated that pages 32 and 33 of the application form (received February 2, 2007) inadvertently referenced this MACTEC document and that these pages of the application form had been revised to reference the Jammal report. Based on the response to comment #4 in the CDM letter, the Department considers the Jammal report to be the document that describes the "monitoring plan" for the West Pasco Class III landfill. **This comment is presented for informational purposes and does not require a response.**

4. **M.1.a.:** The CDM response letter was signed/sealed by a professional geologist. **No additional information is requested.**

5. **M.1.b.:** The CDM response letter referred to the certification issued by the Florida Department of Health regarding the Pasco County Environmental Laboratory that was provided in Appendix A. **No additional information is requested.**

6. **M.1.c.(1):**

a. The CDM response letter indicated that the monitor wells at West Pasco Class III landfill were re-surveyed on January 22, 2007, and a copy of the revised survey was presented in Appendix B. The CDM response letter also indicated that the ground water contour map of the water levels measured across the entire facility October 2, 2006 (Class I and Class III landfill areas) was revised using the new survey data (presented in Appendix B). Please note that the indication in the CDM response letter that ground water flows toward the north-northwest appears to be inconsistent with this revised contour map that shows a general north to north-northeast direction of ground water flow across the Class III landfill. To further characterize seasonal variations in the direction of ground water flow, please submit revised ground water contour maps for the water levels measured across the entire facility (Class I and Class III landfill areas) for the water levels measured during the sampling events conducted during April 2004, August 2004, February 2005, September 2005 and March 2006 (the sampling events included in the MACTEC report) using the new survey data. Please submit a revised discussion of the direction of ground water flow across the West Pasco Class III landfill.

b. The CDM response letter indicated that with ground water flow to the north-northwest, detection wells were placed in the downgradient direction. The CDM response letter also indicated that wells 2MW-8, 4MW-8 and 2MW-10 were located within 50 feet of the Class III landfill and that the other downgradient wells were not located within 50 feet of the Class III landfill due to existing facility infrastructure. Based on the information provided on Sheet 4, Sheet 10 and Sheet 12 (Sections A and B) of the Site Plans for the West Pasco Class III landfill prepared by CDM (received July 7, 1995) and the latitude/longitude coordinates provided for the existing monitor well by the new survey presented in Appendix B, the distances between the edge of waste and the existing monitor wells were estimated:

- 2MW-3A – 500 feet
- 4MW-3A – 700 feet
- 2MW-7 and 4MW-7 – 150 feet
- 2MW-8 and 4MW-8 – 165 feet
- 2MW-9 and 4MW-9 – 425 feet
- 2MW-10 – 120 feet

Based on the response to comment #6.a., above, please describe the direction of ground water flow across the West Pasco Class III landfill, including seasonal variations, and verify if wells 2MW-3A, 2MW-8 and 4MW-8 are located downgradient from the West Pasco Class III landfill. Please note that the indication in Section 6.2 of the Jammal report that the proposed monitor wells are located approximately 100 feet from the edge of the landfill disposal areas does not meet the requirements for detection wells presented in Rule 62-701.510(3)(a), F.A.C., and appears to be inconsistent with the Site Plans and new survey. Please evaluate the locations for the existing downgradient wells and submit a revised monitoring plan to present the locations of new detection wells to meet the requirements for the above-cited rule regarding the distance from the edge of the disposal unit for detection wells, as appropriate.

7. **M.1.c.(2):** The CDM response letter proposed changes to the designations for wells 2MW-3A/4MW-3A (from background to downgradient) and wells 2MW-7/4MW-7 (from downgradient to background) based on the new survey and revised contour map for the October 2, 2006 water levels. The CDM response letter also indicated that with these proposed well designation changes, the downgradient wells are located near the edge of the zone of discharge. Please note that Specific Condition #29.a., of permit #26255-001-SO describes the zone of discharge for the West Pasco Class III landfill to extend horizontally 100 feet from the limits of the landfill liner or to the property boundary, whichever is less, consistent with the requirements of Rule 62-520.465(2)(a), F.A.C. Based on the response to comment #6.b., above, it appears that the existing downgradient wells may be located a considerable distance beyond the edge of the zone of discharge. Please submit a revised monitoring plan to reference the criteria presented in Rules 62-701.510(3)(b) and 62-701.510(7)(a)3, F.A.C., regarding the need to install compliance wells at the edge of the zone of discharge.

8. **M.1.c.(5):** The CDM response letter indicated that based on the responses provided to comment #6 and #7, the horizontal well spacing requirements for upgradient and downgradient monitor wells appear to be sufficient. While it appears that a single location may be adequate to characterize background conditions in the surficial and Floridan aquifers, the well spacing for downgradient wells does not appear to meet the requirements of Rule 62-701.510(3)(d)3, F.A.C. For example, the distance between wells 4MW-8 and 4MW-9 appears to be more than 900 feet (assuming well 4MW-8 is located in the downgradient direction). Please submit a revised monitoring plan to present the locations of new detection well to meet the requirements of the above-cited rule regarding the well spacing between detection wells, as appropriate.



9. **M.1.c.(6):** The CDM response letter indicated that the Floridan aquifer monitor wells were completed in the uppermost aquifer at the site. Please note that based on the screen and open hole intervals presented for the wells completed in the Floridan aquifer (Table 1, Appendix D), it appears that the depth of rock penetration ranges from 14.8 feet (4MW-7) to 38.9 feet (4MW-8). In the event that new monitor well locations are proposed (in response to comment #6.b., and #8), please submit a revised monitoring plan to present the technical justification for well screen/open hole intervals to meet the requirements of Rule 62-701.510(2)(b), F.A.C. [*wells installed at appropriate locations and depths to yield ground water samples from the uppermost aquifer, as well as other aquifers reasonably expected to be affected by the landfill*], and Rule 62-701.510(3)(d)4, F.A.C. [*The applicant shall provide technical justification for the actual screen length chosen*].
10. **M.1.c.(7):** The CDM response letter indicated that Rule 62-701.510(9)(b), F.A.C., does not require procedures for properly abandoning monitor wells and also indicated that future well abandonments would be conducted in accordance with Specific Condition #34 of permit #26255-001-SO. Please submit a revised monitoring plan that presents the procedures for monitor well abandonment to meet the requirements of Rule 62-701.510(3)(d)5, F.A.C.
11. **M.1.c.(8):** The CDM response letter referred to revised page 32 of the application form for this item that provided an “N/A” entry regarding leak detection sensors (included in Section 1). **No additional information is requested.**
12. **M.1.d.(1) and M.1.d.(2):** The CDM response letter referred to revised page 33 of the application form for these items that provided “N/A” entries regarding surface water monitoring (included in Section 1). **No additional information is requested.**
13. **M.1.e.:** The CDM response letter provided a description of leachate sampling conducted at Tank #1 and Tank #2. Please submit a revised monitoring plan that describes these procedures for the collection of leachate samples to meet the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C.
14. **M.1.f.(1):** The CDM response letter referred to the parameter list conducted for the sampling events included in the MACTEC report. Please submit a revised monitoring plan that presents the list of parameters for the “initial sampling event” to meet the requirements of Rule 62-701.510(6)(b)2, F.A.C.
15. **M.1.f.(4):** The CDM response letter referred to revised page 33 of the application form for this item that provided an “N/A” entry regarding surface water sampling (included in Section 1). **No additional information is requested.**
16. **M.1.g.:** The CDM response letter provided a description of the criteria that require the initiation of evaluation monitoring. Please submit a revised monitoring plan to describe these criteria and meet the requirements of Rule 62-701.510(7), F.A.C.
17. **M.1.h.(1):** The CDM response letter indicated that the reporting requirements presented in Rule 62-701.510(9)(a), F.A.C., will be followed. Please submit a revised monitoring plan that describes the reporting procedures for the results of the routine monitoring events conducted at the West Pasco Class III landfill to meet the requirements of the cited rule.
18. **M.1.h.(2):** Please submit responses to the following comments that refer to sections of the GWMPE:  
Section 1.2 – FDEP-Approved Comprehensive Quality Assurance Plan
  - a. The CDM response letter referred to the certification issued by the Florida Department of Health regarding the Pasco County Environmental Laboratory that was provided in Appendix A. **No additional information is requested.**

Section 1.3.1 – Water Quality Monitoring Plan

b. The CDM response letter referred to the revised well construction details provided in Table 1 (included in Appendix D). Please submit revisions to Table 1 to provide the information that needed to be verified (2MW-3A – aquifer monitored, total depth, depth to rock and screen interval; 4MW-3A – completion date; 4MW-3A, 4MW-7, 4MW-8 and 4MW-9 – depth of protective casing). As Table 1 provided information that addressed comment #18.b.(i) through #18.b.(vi), and #18.b.(ix) through #18.b.(xii), please submit responses, and revisions to Table 1 as appropriate, to address the following:

vii) **Well 2MW-8** – the indication that this well was installed on April 12, 1992 is inconsistent with Attachment 9 of the CDM letter which provided a well completion report that indicated it was installed on June 12, 1990; in the event that this well was repaired or replaced in 1992, please provide a copy of the updated well completion report.

viii) **Well 2MW-8** – based on the revised land surface elevation and total depth provided in Table 1, the bottom of the well should be at ~37.4 feet NGVD; ground water elevations reported for three of the five sampling events during the review period were below 37.4 feet NGVD (March 2004 at 36.41 feet NGVD; August 2004 at 35.66 feet NGVD; February 2005 at 34.75 feet NGVD); please review this apparent inconsistency and submit revised information, as appropriate.

Section 1.3.2 – Leachate Monitoring Plan

c. The response to comment #13, above, will address this comment. **No additional information is requested.**

d. The indication in the CDM response letter that monthly leachate sampling and analysis is not recommended does not address the requirements of Rule 62-701.510(6)(c)2, F.A.C. Please submit a revised monitoring plan to meet the requirements of the cited rule regarding the criteria for conducting monthly leachate sampling and analysis.

Section 2.4.2 – Ground Water Flow Direction

e. The response to comment #6.a., above, will address this comment. **No additional information is requested.**

Section 2.4.3 – Ground Water Gradient

f. The CDM response letter provided a calculation of hydraulic gradients using the revised contour map prepared with the water levels measured on October 2, 2006. Please note that as the hydraulic gradient calculated between wells 4MW-7 and 4MW-8 represents a section that is essentially parallel to the contour lines shown on this revised contour map, it underestimates the horizontal hydraulic gradient at the facility. Please submit supplemental calculations of hydraulic gradient for each of the contour maps prepared in response to comment #6.a., above, that represent sections that are perpendicular to the contour lines shown on these contour maps.

Section 2.4.4 – Ground Water Flow Velocity

g. The CDM response letter provided a calculation of ground water velocity in the Floridan aquifer using: the hydraulic gradient calculated between wells 4MW-7 and 4MW-8 for the water levels measured on October 2, 2006; hydraulic conductivity obtained from a slug test conducted at well 4MW-13D; and, an estimated effective porosity value for marine limestone. Please submit supplemental calculations of ground water velocity using the range of hydraulic gradients provided in the response to comment #18.f., above.

Section 4.0 – Leachate Data

h. The CDM response letter indicated that due to the disposal of yard waste in Cell 4, the leachate from this cell is directed to leachate Tank #2. **No additional information is requested.**

Section 4.2.11 – Organic Parameters

i. Please note that 4-methyl-2-pentanone was reported at an estimated concentration (0.53 µg/L) in the sample collected from Tank #1 during the September 2004 sampling event and at a concentration of 1,200 µg/L (an exceedance of the ground water minimum criterion of 560 µg/L) in the sample collected from Tank #2 during the March 2006 sampling event (see attached E Lab reports). **No additional information is requested.**

Section 5.1 – Sampling Locations

j. The response to comment #18.b.(viii), above, will address this comment. **No additional information is requested.**

k. The response to comment #6.a., above, will address this comment. **No additional information is requested.**

l. The responses to comment #6.a., and #7., above, will address this comment. **No additional information is requested.**

Section 5.2 – Monitoring Frequency

m. The response to comment # 18.g., above, will address this comment. **No additional information is requested.**

Section 6.0 – Summary and Recommendations

n. The responses to comment #6.b., and #7., above, will address this comment. **No additional information is requested.**

I can be contacted at 813-632-7600, extension 336, to discuss these review comments.

Attachments – E Lab, Inc., reports, Tank #1 sampled 9/13/04, Tank #2 sampled 3/21/06

jrm

**Analytical Report**

**CLIENT:** Pasco County Environmental Laboratory  
**Lab Order:** F04090350  
**Project:** WP Class III/Resource Recovery  
**Lab ID:** F04090350-005

**Client Sample ID:** TANK-1  
**Collection Date:** 9/13/2004 1:50:00 PM  
**Sample Description:**  
**Matrix:** Groundwater

Analyses	Result	Qual	MDL	RL	Units	DF	Date Analyzed	Batch ID
<b>8260: VOLATILE ORGANIC COMPOUNDS</b>		<b>SW8260</b>	PrepDate: 9/17/2004		Analyst: LGO			
Acetone	6.9	I	3.7	10	µg/L	1	09/18/04 05:40	22152
Acrylonitrile	2.2	U	2.2	10	µg/L	1	09/18/04 05:40	22152
Benzene	2.1	*	0.23	1.0	µg/L	1	09/18/04 05:40	22152
Bromochloromethane	0.21	U	0.21	1.0	µg/L	1	09/18/04 05:40	22152
Bromodichloromethane	0.26	U	0.26	0.60	µg/L	1	09/18/04 05:40	22152
Bromoform	0.28	U	0.28	1.0	µg/L	1	09/18/04 05:40	22152
Bromomethane	0.60	U	0.60	1.0	µg/L	1	09/18/04 05:40	22152
2-Butanone	1.8	U	1.8	10	µg/L	1	09/18/04 05:40	22152
Carbon disulfide	0.49	U	0.49	1.0	µg/L	1	09/18/04 05:40	22152
Carbon tetrachloride	0.29	U	0.29	1.0	µg/L	1	09/18/04 05:40	22152
Chlorobenzene	0.15	U	0.15	1.0	µg/L	1	09/18/04 05:40	22152
Chloroethane	0.51	U	0.51	1.0	µg/L	1	09/18/04 05:40	22152
Chloroform	0.23	U	0.23	1.0	µg/L	1	09/18/04 05:40	22152
Chloromethane	0.50	U	0.50	1.0	µg/L	1	09/18/04 05:40	22152
Dibromochloromethane	0.19	U	0.19	0.50	µg/L	1	09/18/04 05:40	22152
Dibromomethane	0.30	U	0.30	1.0	µg/L	1	09/18/04 05:40	22152
trans-1,4-Dichloro-2-butene	0.64	U	0.64	10	µg/L	1	09/18/04 05:40	22152
1,2-Dichlorobenzene	0.19	U	0.19	1.0	µg/L	1	09/18/04 05:40	22152
1,4-Dichlorobenzene	0.19	U	0.19	1.0	µg/L	1	09/18/04 05:40	22152
1,1-Dichloroethane	0.26	U	0.26	1.0	µg/L	1	09/18/04 05:40	22152
1,2-Dichloroethane	0.19	U	0.19	1.0	µg/L	1	09/18/04 05:40	22152
1,1-Dichloroethene	0.40	U	0.40	1.0	µg/L	1	09/18/04 05:40	22152
cis-1,2-Dichloroethene	0.17	U	0.17	1.0	µg/L	1	09/18/04 05:40	22152
trans-1,2-Dichloroethene	0.17	U	0.17	1.0	µg/L	1	09/18/04 05:40	22152
1,2-Dichloropropane	0.33	U	0.33	1.0	µg/L	1	09/18/04 05:40	22152
cis-1,3-Dichloropropene	0.23	U	0.23	0.50	µg/L	1	09/18/04 05:40	22152
trans-1,3-Dichloropropene	0.25	U	0.25	0.50	µg/L	1	09/18/04 05:40	22152
Ethylbenzene	7.2		0.20	1.0	µg/L	1	09/18/04 05:40	22152
2-Hexanone	0.28	U	0.28	10	µg/L	1	09/18/04 05:40	22152
Iodomethane	0.52	U	0.52	1.0	µg/L	1	09/18/04 05:40	22152
4-Methyl-2-pentanone	0.53	I	0.26	10	µg/L	1	09/18/04 05:40	22152
Methylene chloride	2.0	U	2.0	5.0	µg/L	1	09/18/04 05:40	22152
Styrene	0.12	U	0.12	1.0	µg/L	1	09/18/04 05:40	22152
1,1,1,2-Tetrachloroethane	0.24	U	0.24	1.0	µg/L	1	09/18/04 05:40	22152
1,1,1,2,2-Tetrachloroethane	0.44	U	0.44	0.50	µg/L	1	09/18/04 05:40	22152
Tetrachloroethene	0.17	U	0.17	1.0	µg/L	1	09/18/04 05:40	22152

**Data** \* Value exceeds Maximum Contaminant Level I Analyte detected below quantitation limits  
**Qualifier** U Not Detected Above the MDL V Analyte detected in the associated Method Blank  
**Code Key:**

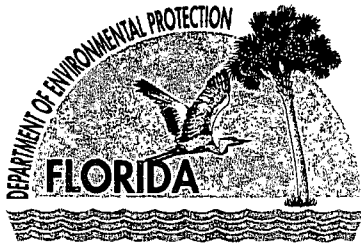
### Analytical Report

**CLIENT:** Pasco County Environmental Laboratory  
**Lab Order:** F06030907  
**Project:** WPCL III Landfill  
**Lab ID:** F06030907-002

**Client Sample ID:** Tank-2  
**Collection Date:** 3/21/2006 1:00:00 PM  
**Sample Description:**  
**Matrix:** Groundwater

Analyses	Result	Qual	MDL	RL	Units	DF	Date Analyzed	Batch ID
<b>8260: VOLATILE ORGANIC COMPOUNDS</b>		<b>SW8260</b>	PrepDate: 3/22/2006		Analyst: JN			
1,1-Dichloroethane	0.26	U	0.26	1.0	µg/L	1	03/22/06 18:33	34714
1,2-Dichloroethane	0.19	U	0.19	1.0	µg/L	1	03/22/06 18:33	34714
1,1-Dichloroethene	0.40	U	0.40	1.0	µg/L	1	03/22/06 18:33	34714
cis-1,2-Dichloroethene	0.17	U	0.17	1.0	µg/L	1	03/22/06 18:33	34714
trans-1,2-Dichloroethene	0.17	U	0.17	1.0	µg/L	1	03/22/06 18:33	34714
1,2-Dichloropropane	0.33	U	0.33	1.0	µg/L	1	03/22/06 18:33	34714
1,3-Dichloropropane	0.24	U	0.24	1.0	µg/L	1	03/22/06 18:33	34714
2,2-Dichloropropane	0.55	U	0.55	1.0	µg/L	1	03/22/06 18:33	34714
1,1-Dichloropropene	0.31	U	0.31	1.0	µg/L	1	03/22/06 18:33	34714
cis-1,3-Dichloropropene	0.23	U	0.23	0.50	µg/L	1	03/22/06 18:33	34714
trans-1,3-Dichloropropene	0.25	U	0.25	0.50	µg/L	1	03/22/06 18:33	34714
Ethyl methacrylate	0.26	U	0.26	1.0	µg/L	1	03/22/06 18:33	34714
Ethylbenzene	1.4		0.20	1.0	µg/L	1	03/22/06 18:33	34714
Hexachlorobutadiene	0.46	U	0.46	0.50	µg/L	1	03/22/06 18:33	34714
2-Hexanone	0.28	U	0.28	10	µg/L	1	03/22/06 18:33	34714
Iodomethane	0.52	U	0.52	1.0	µg/L	1	03/22/06 18:33	34714
Isobutyl Alcohol	7.9	U	7.9	20	µg/L	1	03/22/06 18:33	34714
Methacrylonitrile	3.8	U	3.8	10	µg/L	1	03/22/06 18:33	34714
Methyl methacrylate	0.21	U	0.21	10	µg/L	1	03/22/06 18:33	34714
4-Methyl-2-pentanone	1200		10	400	µg/L	40	03/27/06 12:24	34795
Methylene chloride	2.0	U	2.0	5.0	µg/L	1	03/22/06 18:33	34714
Propionitrile	2.8	U	2.8	10	µg/L	1	03/22/06 18:33	34714
Styrene	0.12	U	0.12	1.0	µg/L	1	03/22/06 18:33	34714
1,1,1,2-Tetrachloroethane	0.24	U	0.24	1.0	µg/L	1	03/22/06 18:33	34714
1,1,2,2-Tetrachloroethane	0.44	U	0.44	0.50	µg/L	1	03/22/06 18:33	34714
Tetrachloroethene	0.17	U	0.17	1.0	µg/L	1	03/22/06 18:33	34714
Toluene	2.3		0.35	1.0	µg/L	1	03/22/06 18:33	34714
1,1,1-Trichloroethane	0.33	U	0.33	1.0	µg/L	1	03/22/06 18:33	34714
1,1,2-Trichloroethane	0.17	U	0.17	1.0	µg/L	1	03/22/06 18:33	34714
Trichloroethene	0.27	U	0.27	1.0	µg/L	1	03/22/06 18:33	34714
Trichlorofluoromethane	0.50	U	0.50	1.0	µg/L	1	03/22/06 18:33	34714
1,2,3-Trichloropropane	0.24	U	0.24	0.50	µg/L	1	03/22/06 18:33	34714
Vinyl acetate	0.46	U	0.46	2.0	µg/L	1	03/22/06 18:33	34714
Vinyl chloride	0.43	U	0.43	1.0	µg/L	1	03/22/06 18:33	34714
Xylenes, Total	3.0		0.32	1.0	µg/L	1	03/22/06 18:33	34714
Surr: 4-Bromofluorobenzene	96.4		0	83.5-110	%REC	40	03/27/06 12:24	34795

**Data** I Analyte detected below quantitation limits S Spike Recovery outside accepted recovery limits  
**Qualifier** U Not Detected Above the MDL V Analyte detected in the associated Method Blank  
**Code Key:**



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

May 14, 2007

Mr. John Power  
West Pasco County Class III  
14230 Hays Road  
Spring Hill, FL 34610

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
MAY 16 2007  
SOUTHWEST DISTRICT  
TAMPA

Dear Mr. Power:

Your Application for Registration of a Yard Trash Processing Facility for West Pasco County Class III (located at 14230 Hays Road, Spring Hill) in Pasco County is complete. Your facility identification number is 051-01-YT. This registration is valid until **May 1, 2008**. The receipt number for the registration fee you paid is 584275.

You must comply with the requirements specified in Rule 62-709.320, Florida Administrative Code (F.A.C.), in order to maintain qualification for the registration program. A summary of the operating requirements is enclosed.

If you need further information, please contact me at the above address, Mail Station 4565, telephone 850/245-8747, or email [Francine.Joyal@dep.state.fl.us](mailto:Francine.Joyal@dep.state.fl.us).

Sincerely,

Francine Joyal  
Environmental Specialist

Enclosure

cc: Susan Pelz, Southwest District



# Florida Department of Environmental Protection

Southwest District Office  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

March 2, 2007

Mr. John Power, Solid Waste Facility Manager  
Pasco County Utilities  
7530 Little Road  
New Port Richey, Florida 34654

**Re: West Pasco Class III Landfill  
Pending Permit No.: 26254-001-SO/T3, Pasco County  
1<sup>st</sup> Request for Additional Information**

Dear Mr. Power:

This is to acknowledge receipt of the permit renewal application dated February 2007, (received February 2, 2007), to operate a Class III landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your application for a permit is incomplete. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

**GENERAL:**

1. The requested information and comments below do not necessarily repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.

2. Please submit **4 copies** of all requested information. Please specify if revised information is intended to supplement or replace previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be shaded shaded or similar notation method. This format will expedite the review process. Please include revision date on all revised pages.

3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.

4. Please be advised that although some comments may not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate.

The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)].

1. Please provide specific references to any previously submitted documents that you are requesting the Department to consider in support of this application (i.e., N/C). The references should specifically identify the parts of the previously submitted document in which the subject information was originally submitted (prepared by, date of preparation, date received by the Department, section, etc.) and verify that the document is located in the Department's current files **and** remains valid. Otherwise please resubmit the information and/or submit revisions to the supporting information, as appropriate.

2. **Rule 62-701.320(7)(b), F.A.C. Application Form #62-701.900(1):** Please address the following comment regarding the permit application form and provide an application form with the revised information, where applicable:

a. Disposal Facility General Information - Part B.13: Please address the comment in John Morris' February 28, 2007 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

b. Disposal Facility General Information - Part B.28: The Environmental Resources Permit (ERP) number was indicated as being not applicable (N/A). This is incorrect as a stormwater permit was required for this facility. Please provide the permit number that was issued by SWFWMD or the FDEP, and revise the item in the application form to show the applicable reference, or provide supplemental information.

c. Prohibitions - Part D: Please provide the prior reference used or confirm that each of the prohibitions in Rule 62-701.300, F.A.C., will not be violated by the proposed solid waste operations. See Comment #1.

d. Solid Waste Management Facility Permit Requirements, General - Part E.6: The engineering report is not located in Attachment 1. Please provide an engineering report which addresses the applicable requirements of Rule 62-701.320(7)(d), F.A.C.

e. Solid Waste Management Facility Permit Requirements, General - Parts E.9.b, F.1, and F.2: Please provide a current vicinity map or aerial photograph no more than **1 year old** which meets the requirements of Rule 62-701.330(3)(a), F.A.C. and show all airports that are located within five miles of the proposed landfill (Rule 62-701.330(3)(b), F.A.C.). Please revise these items in the application form.

f. Disposal Facility General Information - Part E.13: Please publish the attached Notice of Application and provide proof of publication, in accordance with Rule 62-701.320(8), F.A.C., to the Department. Please revise this item in the application form.

g. Landfill Permit Requirements - Part F.5(a) through (d): Please provide a copy of the report on the landfill in accordance with Rule 62-701.330(3)(e), F.A.C. This report is required to be updated every five years upon permit renewal.

h. Landfill Construction Requirements - Part H.3.a.4: Prior to accepting waste into Cells 3 and 4 please note that the new permit will have a specific condition that requires video inspection and cleaning of the leachate pipes in those cells prior to accepting waste into those cells. **This comment is for informational purposes only and does not require a response.**



- i. Hydrogeological Investigation Requirements - Part I: Please address the comments in John Morris' February 28, 2007 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.
- j. Water Quality and Leachate Monitoring Requirements - Part M: Please address the comments in John Morris' February 28, 2007 memorandum (attached) regarding this information. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.
- k. Gas Management System Requirements - Part O.1(a) through (d): The gas management information was indicated as being not applicable (N/A). This is incorrect as a gas management system is required for this facility in accordance with Rule 62-701.530(1)(a), F.A.C., and the facility current gas management procedures appear to be partially addressed in Section 9 of the Operations Plan. Please revise the items in the application form to indicate either there was no substantial change (N/C) and provide the applicable reference, or provide supplemental information. See Comment #1.
- l. Gas Management System Requirements - Part O.2: This documentation appears to be provided in Section 9 of the Operations Plan. Please revise this item of the application form to reference Section 9 of the Operations Plan.
- m. Gas Management System Requirements - Part O.3: The gas remediation plan was provided in Section 9 of the Operations Plan. Please revise this item of the application form to reference Section 9 of the Operations Plan. An odor remediation plan was not supplied to the Department. Please submit an odor remediation plan that meets the requirements of rule 62-701.530(3)(b), F.A.C., and revise this item of the application form to reference this information.
- n. Landfill Final Closure Requirements - Part P.1(a) through (c): The facility should have on file an approved closure schedule in accordance with Rule 62-701.600(2), F.A.C. Please revise the items in the application form to indicate either there was no substantial change (N/C) and provide the applicable reference, or provide supplemental information. See Comment #1.
- o. Landfill Final Closure Requirements - Part P.2(b)(1)through(3)and (5) through (6): In accordance with Rule 62-701.320(7)(e)1., F.A.C., a closure plan is required as part of the this application and therefore is applicable. Please provide a closure plan for the facility that includes a description of the proposed closure design and activities to be included in closing of the facility. This closure plan should be as detailed as, and be consistent with, the details for closure provided in support of the facility's closing cost estimates. Previously provided information, which is still valid may be referenced, but must be specifically referenced (by document name, document date, author, and specific section, page and/or plan number) for each item listed. Please revise the items in the application form to indicate either there was no substantial change (N/C) and provide the applicable reference, or provide supplemental information. See Comment #1.

p. Landfill Final Closure Requirements - Part P.2(b)(5) and Long-Term Care Requirements - Parts R.1. through R.4. : The facility should have on file an approved plan for long term care in accordance with Rule 62-701.620, F.A.C (See Comment #2.o.). This long-term care plan should be as detailed as, and be consistent with, the details for long-term care provided in support of the facility's long-term care cost estimates. Previously provided information, which is still valid may be referenced, but must be specifically referenced (by document name, document date, author, and specific section, page and/or plan number) for each item listed. Please revise the item in this part of the application form along with Section R, Items 1-4, to indicate either there was no substantial change (N/C) and provide the applicable reference, or provide supplemental information. See Comment #1.

q. Landfill Final Closure Requirements - Part P.2(b)(6): The demonstration that proof of financial responsibility for long-term care was provided in Attachment 2. Please revise the item in the application form to reference the information was submitted in Attachment 2.

**Rule 62-701.500, F.A.C. Operations Plan:**

Please provide the following additional information and revisions to the Operations Plan. Please provide a comprehensive Operations Plan that incorporates the responses to these comments and include new revision dates.

3. Section 2.b - Contingency Operations for Emergencies:

a. Please describe or identify on a site plan where wastes resulting from a natural disaster or other emergency will be stockpiled.

b. Please describe or identify on a site plan where soil from an on-site stockpile, used for the suppression of fires, is located.

4. Section 2.c - Controlling Types of Waste Received at the Landfill:

a. This section appears to indicate that procedures for the removal of prohibited waste are in accordance with the loading checking program procedures. However it is not likely that the load checking program procedures will be used for routine spotting and removal of prohibited materials. Please provide specific procedures (e.g., temporary storage location, type of storage containers, size of storage containers, maximum storage time, etc.) for the management of any unacceptable wastes, hazardous wastes or medical wastes that is unintentionally received by the facility.

b. Please describe what type of wastes is the facility classifying as prohibited wastes, and provide the routine procedures for removing these types of wastes.

5. Section 2.f - Method and Sequence of Filling Waste: Please modify the second sentence of the last paragraph to state, "Final cover will consist of 18 inches of clayey material, with a maximum permeability of  $1 \times 10^{-5}$  cm/sec, and covered with 18 inches of native soils."

6. Section 2.g - Waste Compaction and Application of Cover: The third paragraph states "Application of initial, intermediate, and final cover is to be performed in accordance with the closure plan", which is incorrect. Please revise the text by deleting the words *initial* and *intermediate* to make this a correct statement.

7. Section 2.i - Water Quality Monitoring: The reference to this report may change in accordance with the comments obtained from John Morris' memorandum. Please revise as appropriate.

8. Section 7 - Landfilling Procedures: Please describe how odor control will be achieved should there ever be an odor problem or concern at the site.
9. Section 8 - Operation of Leachate Controls:
  - a. Please provide details of the two existing underground leachate storage tanks.
  - b. The rule reference of 62-701.510(8)(a) identified in the last paragraph, is incorrect. Please revise the text to state the reference is 62-701.510(8)(c) and (d) F.A.C.
  - c. The text indicates the leachate tanks are sampled and analyzed semi-annually but the current permit (#26255-001-SO, Specific Condition No. 30.a) requires this to be an annual event. Please revise the text accordingly.
  - d. The text indicates the volume of leachate generated is reported to the Department each month, but the current permit (#26255-001-SO, Specific Condition No. 17.b) requires quarterly submittals. Please revise the text accordingly.
10. Section 9 - Routine Gas Monitoring Program:
  - a. The text states, "Units No.1 and No. 2 are currently in use for acceptance of C&D material." This appears to be inconsistent with the sequence of fill which does not provide for operations of two cells simultaneously. Please explain.
  - b. Please revise this section to describe the facility's operational gas management procedures at the facility.
11. Section 11.d - Dust Control Methods: Please describe the source of water that will be used for dust control at the site.
12. Section 11.e - Fire Protection Capabilities and Procedures:
  - a. Please see comment #3.b.
  - b. The proposed procedures for managing a "hot load" received at the facility, while appropriate, would preclude the ability to adequately spot the load for unacceptable waste. Therefore upon extinguishing the load, the load should be disposed as a Class I waste. Please revise this section accordingly.
13. Figure 2: The figure appears to only indicate the fill sequence for Cell 1. Please provide fill sequences for the remainder of Cells 2, 3 and 4.
14. Figure 4:
  - a. This figure appears to indicate that leachate generated in Cells 1 and 2 is directed to one holding tank and the leachate generated in Cells 3 and 4 to the other tank. However leachate data provided for this facility to the Department appears to indicate that leachate is currently managed in both leachate holding tanks, although Cells 3 and 4 are not currently operational. Please explain.
  - b. The piping and valve configuration on this figure does not appear to be consistent with leachate from both leachate collection lines in Cell 2 and 3 being directed to the leachate holding tanks. Please explain.

15. Attachment 2, Financial Assurance: Please address the comments in the Department's February 28, 2007 letter (attached) regarding the financial assurance cost estimates. You may call Mr. Steve Morgan at (813)632-7600, ext. 385, to discuss this item.

16. Attachment 3, Jet Cleaning Report: Please provide a more detailed description of the process (i.e., specific length of each leachate line cleaned, type of cleaning, equipment used, general condition of lines, leachate collected, etc.) used for cleaning the leachate collection lines in Cells 1 and 2.

17. Please address the comments in John Morris' February 28, 2007 memorandum (attached) regarding this application. You may call Mr. Morris at (813) 632-7600, extension 336, to discuss the items in his memorandum.

Please **respond within 45 days** after you receive this letter, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 45 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Pursuant to the provisions of Rule 62-4.055(1), F.A.C., if the Department does not receive a timely, complete response to this request for information the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

You are requested to submit your response to this letter as one complete package. If there are points that must be discussed and resolved, please contact me at (813) 632-7600 ext. 382.

Sincerely,



Roger Evans  
Environmental Engineer  
Solid Waste Section  
Southwest District

**Attachments**

Cc: Aamod Sonawane, P.E., Camp Dresser & McKee Inc. (CDM), 1715 N. Westshore Blvd., Suite 875,  
Tampa, Florida 33607  
Fred Wick, FDEP Tallahassee  
John Morris, P.G., FDEP Tampa  
Steve Morgan, FDEP Tampa  
Susan Pelz, P.E., FDEP Tampa

# Florida Department of Environmental Protection

## Memorandum

**TO:** Roger Evans  
**FROM:** John Morris, P.G. *JM*  
**DATE:** February 28, 2007  
**SUBJECT:** West Pasco Class III Landfill, Operation Permit Application  
Pending Permit No. 26254-001-SO, Pasco County  
Hydrogeologic and Environmental Monitoring Review Comments  
**cc:** Steve Morgan  
Susan Pelz, P.E.

I have reviewed portions of the materials submitted to the Department in support of the referenced operation permit renewal application for the West Pasco Class III Landfill, prepared on behalf of Pasco County Utilities, received August 4, 2006 and February 2, 2007. The materials that I reviewed were related to the hydrogeologic investigation and monitoring plan that had been prepared for the pending permit application include the following:

- Document entitled "Operation Permit Renewal Application for the West Pasco Class III Landfill," dated February 2007, prepared by Camp Dresser & McKee, Inc., (CDM), received February 2, 2007, including:
  - DEP Form #62-701.900(1), signed/sealed January 31, 2007,
  - Attachment 1 – Landfill Operations Plan for West Pasco Class III Landfill, revised January 2007
  - Attachment 2 – Financial Assurance
  - Attachment 3 – Leachate Collection Lines – Jet Cleaning Report
- Document entitled "Water Quality Monitoring Plan Evaluation, 2004 – 2006, West Pasco Class III Landfill" (WQMPE), dated August 3, 2006, prepared by MACTEC Engineering and Consulting, Inc. (MACTEC), received August 4, 2006.

Additional information is needed to evaluate the adequacy of the monitoring plan. Please have the applicant address the following comments that refer to the permit application form and sections of the referenced submittals. Please have the applicant provide revised submittals, or replacement pages to the submittals, that use a strike through and underline format, or similar format, to facilitate review. Please also have the applicant include the revision date as part of the header/footer for all revised or replacement pages (including text, figures, tables, forms appendices and site plans).

### **Part B – Disposal Facility General Information**

1. **B.13.:** It was indicated that the property was recorded as a disposal site in the County Land Records. Please submit a response that indicates if this has been done to complete the requirements of Rule 62-701.610(5), F.A.C. (Declaration to the Public). If so, please provide a certified copy of the County record including the legal description and a scale-drawn map for that part of the property that has been so recorded.

### **Part I – Hydrogeological Investigation Requirements (Rule 62-701.410, F.A.C.)**

2. **I.1.a., through I.1.i., and I.2.:** A "N/C" entry was provided for each of these items of the application form, however the document(s) that provided the hydrogeological information was not referenced. Please submit a revised application form for each of these items that references the document(s) that includes the subject information. Please provide the title and date of the document, identify who prepared the document, verify that the document is available in the Department's current files and remains valid. In the event that the referenced document(s) cannot be located in the Department's current files, please resubmit the information. In the event that supplemental information is provided, please submit an original that is signed/sealed by the professional geologist or professional engineer with experience in hydrogeologic investigations, and submit revised portions of the application form that reference the supplemental information.

**Part M – Water Quality and Leachate Monitoring Requirements (Rule 62-701.510, F.A.C.)**

3. **M.1.:** This item of the application form referenced the GWMPE prepared by MACTEC and the note at the top of page 32 of DEP Form 62-701.900(1) indicates that the GWMPE document prepared by MACTEC dated August 2006 provides the information requested by Part M of the form. Accordingly, the GWMPE will be considered as the document that describes the “monitoring plan” for West Pasco Class III Landfill and that it replaces all previously submitted monitoring plan documents. **This comment is presented for informational purposes and does not require a response.**
4. **M.1.a.:** The GWMPE dated August 2006 was not signed or sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations. Please submit a revised GWMPE that is signed/sealed.
5. **M.1.b.:** This item of the application form requires all sample collection and analysis to be performed in accordance with Chapter 62-160, F.A.C. Section 1.2 of the GWMPE indicated that the Pasco County Environmental Laboratory and subcontracted laboratories utilize procedures and methods described in their DEP-approved Comprehensive Quality Assurance Plans (CompQAPs). Please note that Rule 62-160.300, F.A.C., requires all laboratories submitting data to DEP to be certified by the Florida Department of Health, Environmental Laboratory Certification Program. Please submit revisions to Section 1.2 of the GWMPE that delete references to analytical laboratory CompQAPs and refer to the DOH certifications for all laboratories.
6. **M.1.c.(1):** It does not appear that the GWMPE describes the location of the detection wells relative to the landfill cells (within 50 feet in the downgradient direction). Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
7. **M.1.c.(2):** It does not appear that the GWMPE indicates that there are currently no downgradient compliance wells located at the edge of the zone of discharge at the West Pasco Class III Landfill. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
8. **M.1.c.(5):** It does not appear that the GWMPE describes the spacing for background and detection wells at the West Pasco Class III Landfill. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
9. **M.1.c.(6):** It does not appear that the GWMPE provides a justification for well screen locations relative to the uppermost aquifer and other aquifers reasonably expected to be affected by the landfill (see Rule 62-701.510(2)(b), F.A.C.). Please submit revisions to Section 1.3.1 or other sections of the GWMPE to discuss the presence of the confining unit and occurrence of ground water (surficial and Floridan aquifers) at the West Pasco Class III Landfill to address this item of the application form, as appropriate.
10. **M.1.c.(7):** It does not appear that the GWMPE provides the procedures for properly abandoning monitor wells. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
11. **M.1.c.(8):** Please submit a revised application form for this item that provides a “N/A” entry as leak detection sensors have not been installed at the West Pasco Class III Landfill.
12. **M.1.d.(1) and M.1.d.(2):** Please submit a revised application form for these items that provides a “N/A” entry as surface water monitoring is not conducted at the West Pasco Class III Landfill.
13. **M.1.e.:** Please submit revisions to Section 1.3.2 of the GWMPE to provide a description of the leachate sampling locations at Tank #1 and Tank #2.

14. **M.1.f.(1):** It does not appear that the GWMPE provides the list of parameters for initial ground water sampling events to comply with the requirements of Rule 62-701.510(6)(b)2, F.A.C. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
15. **M.1.f.(4):** Please submit a revised application form for this item that provides a “N/A” entry as surface water sampling is not conducted at West Pasco Class III Landfill.
16. **M.1.g.:** It does not appear that the GWMPE provides the procedures for implementing evaluation monitoring, prevention measures and corrective actions. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
17. **M.1.h.(1):** It does not appear that the GWMPE provides the reporting requirements for routine ground water and leachate monitoring. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
18. **M.1.h.(2):** Please submit responses to the following comments that refer to sections of the GWMPE:  
Section 1.2 – FDEP-Approved Comprehensive Quality Assurance Plan  
a. Please submit revisions to this section that address comment #5, above.

Section 1.3.1 – Water Quality Monitoring Plan

b. This section refers to the summary of monitor well construction details provided in Table 1. It appears that some of the information provided in Table 1 is inconsistent with the monitor well construction details provided in Attachment 9 of the letter prepared by CDM dated July 12, 2001 (re: West Pasco Class III Landfill, Permit Renewal Application, Responses to Request for Additional Information”) or the attachments to the letter prepared by QORE, Inc., dated December 4, 2001 (re: Repair of Monitor Well 4MW-7, West Pasco Class III Landfill). Please submit responses, and revisions to Table 1 as appropriate, to address the following comments:

- i) **All wells** – the top of well screen and bottom of well screen elevations appear to be inconsistent with the land surface elevation and total depth information provided
- ii) **All Surficial Aquifer Wells** – the screen lengths appear to be a range of depths below land surface rather than lengths
- iii) **All Floridan Aquifer Wells** – no open hole lengths were provided; please account for the surface casing lengths provided on the Monitor Well Completion Reports included as Attachment 9 of the CDM letter when calculating the open hole intervals of these wells
- iv) **All Wells** – please provide locations of each well in degrees, minutes and seconds of latitude and longitude rather than in northings and eastings to comply with Rule 62-701.510(3)(d)1, F.A.C.
- v) **Well 2MW-3A** – please provide top of casing and ground surface elevations
- vi) **Well 2MW-3A** – please verify that the total depth of this surficial aquifer well (40 feet) is the same as indicated for Floridan aquifer well 4MW-3A (40 feet)
- vii) **Well 2MW-8** – the indication that this well was installed on April 12, 1992 is inconsistent with Attachment 9 of the CDM letter which provided a well completion report that indicated it was installed on June 12, 1990; in the event that this well was repaired or replaced in 1992, please provide a copy of the updated well completion report
- viii) **Well 2MW-8** – based on the land surface elevation and total depth provided in Table 1, the bottom of the well should be at ~36.5 feet NGVD; ground water elevations reported for three of the five sampling events during the review period were below 36.5 feet NGVD as indicated in Table 2 (March 2004 at 36.41 feet NGVD; August 2004 at 35.66 feet NGVD; February 2005 at 34.75 feet NGVD); please review this apparent inconsistency and submit revised information (routine sampling event ground water elevations and/or ground water elevations in Table 1 and Table 2)

- ix) **Well 2MW-9** – the indication of “N/A” for maximum ground water elevation is inconsistent with the ground water elevation reported during the August 2004 sampling event (39.57 feet NGVD)
- x) **Well 2MW-10** – the indication of “N/A” for maximum ground water elevation is inconsistent with the ground water elevation reported during the August 2004 sampling event (39.23 feet NGVD)
- xi) **Well 4MW-7** – please provide revised well construction details that are consistent with the attachments to the QORE, Inc., letter
- xii) **Wells 4MW-8 and 4MW-9** – the indication that these wells are completed with 4-inch diameter screen is inconsistent with Attachment 9 of the CDM letter which provided well completion reports that indicated these wells were completed with open hole sections rather than well screens

Section 1.3.2 – Leachate Monitoring Plan

- c. Please submit revisions to this section to indicate how leachate samples are collected from Tank #1 and Tank #2.
- d. Please submit revisions to this section to address the criteria for implementing the monthly leachate sampling and analysis required by Rule 62-701.510(6)(c)2, F.A.C.

Section 2.4.2 – Ground Water Flow Direction

- e. The indication in this section that ground water flow in the Floridan aquifer indicates a general northwesterly trend is inconsistent with the contour lines drawn on Figures 5, 7, 9, 11 and 13 that appear to indicate east to southeast directions of flow. Please review this apparent inconsistency and submit revisions to this section or the referenced figures, as appropriate.

Section 2.4.3 – Ground Water Gradient

- f. Please submit revisions to this section to provide a range of hydraulic gradient calculations based on each of the ground water contour maps provided for the period of review (March 2004 through March 2006). Please also provide calculations of hydraulic gradient between locations that represent flow lines that are approximately perpendicular to the contour lines. The calculations of hydraulic gradient between wells 4MW-3A/4MW-7 and 4MW-9/4MW-7 for the September 2005 water level measurements provided in this section are considered to underestimate hydraulic gradient as the flow lines between these locations appear to be along the contour lines.

Section 2.4.4 – Ground Water Flow Velocity

- g. The use of estimated hydraulic conductivity values from published data (not referenced) for sand does not represent site conditions (Floridan aquifer wells originally constructed as open hole in limestone sediments), does not address the requirements of Rule 62-701.410(1)(a)1, F.A.C. (i.e., the hydrogeological investigation shall be site specific to define the direction and rate of ground water flow, including seasonal variations), and is inconsistent with Attachment 10 of the letter prepared by CDM dated July 12, 2001. Please submit revisions to this section and provide calculations of ground water flow velocity using the hydraulic conductivity value for the slug test data conducted at well 4MW-13D and also address the responses to comment #18e., and #18.f., above.

Section 4.0 – Leachate Data

- h. Based on Figure 4 provided in Attachment 1 (Landfill Operations Plan), it appears that Tank #1 receives leachate from Cells #1 and #2, and that Tank #2 receives leachate from Cell #3 and #4. It was indicated during the pre-application meeting conducted on September 1, 2006 that waste had been placed in Cells #1 and #2. Please clarify why routine leachate sampling events have included both Tank #1 and #2 if waste has not yet been placed in Cell #3 and #4.



Section 4.2.11 – Organic Parameters

i. Please submit revisions to this section and Table 28 to summarize the results reported for the analysis of 4-methyl-2-pentanone during the September 2004 and March 2006 sampling events.

Section 5.1 – Sampling Locations

j. Please submit revisions to ¶1 of this section to be consistent with the responses provided to comment #18.b.viii., #18.b.ix., and #18.b.x., above, regarding the occurrence of ground water in surficial aquifer wells 2MW-8, 2MW-9 and 2MW-10.

k. Please submit revisions to ¶2 of this section to be consistent with the responses provided to comment #18.e., above, regarding the direction of ground water flow based on water levels measured at the Floridan aquifer wells at the facility.

l. Please submit revisions to ¶2 of this section to discuss the adequacy of the existing Floridan aquifer well locations relative to the direction of ground water flow and the configuration of Cells #1 through #4 to meet the requirements of Rule 62-701.510(9)(b)8, F.A.C. In the event that the designated detection wells (4MW-7, 4MW-8 and 4MW-9) are not considered to be adequate to meet the requirements of Rules 62-701.510(3)(a), F.A.C. (“Two or more detection wells shall be located within the zone of discharge hydraulically downgradient from the solid waste disposal unit . . .”) and 62-701.510(3)(d)3, F.A.C. (“Well spacing shall be spaced no greater than 500 feet apart across the downgradient direction of ground water flow . . .”), please submit revisions to this section that provide locations and justification of construction details for supplemental monitor wells.

Section 5.2 – Monitoring Frequency

m. Please submit revisions to this section to be consistent with the response provided to comment #18.g., above, regarding ground water velocity.

Section 6.0 – Summary and Recommendations

n. Please submit revisions to the second recommendation bullet item to be consistent with the response provided to comment #18.l., and #18.m., above, regarding the adequacy of the water quality sampling locations and sampling frequency, respectively.

I can be contacted at 813-632-7600, extension 336, to discuss these review comments.

jrm

62-110.106 (6) Public Notice of Application and Proposed Agency Action  
Publication of a notice of application shall be required for those projects that, because of their size, potential effect on the environment or natural resources, controversial nature, or location, are reasonably expected by the Department to result in a heightened public concern or likelihood of request for administrative proceedings. If required, the notice shall be published by the applicant one time only within fourteen days after a complete application is filed and shall contain the name of the applicant, a brief description of the project and its location, the location of the application file, and the times when it is available for public inspection. The notice shall be prepared by the Department and shall comply with the following format:

State of Florida  
Department of Environmental Protection  
Notice of Application  
File No.: 26254-001-SO/T3

The Department announces the receipt of an application for permit renewal from Mr. John Power, Solid Waste Facility Manager, for operation of a Class III Landfill, located at 14230 Hays Road, Spring Hill, Pasco County, Florida.

This application is being processed and is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m. Monday through Friday, except legal holidays, at the Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

## Memorandum

# Florida Department of Environmental Protection

**TO:** Roger Evans  
**FROM:** John Morris, P.G. JMM  
**DATE:** February 28, 2007  
**SUBJECT:** West Pasco Class III Landfill, Operation Permit Application  
Pending Permit No. 26254-001-SO, Pasco County  
Hydrogeologic and Environmental Monitoring Review Comments  
**cc:** Steve Morgan  
Susan Pelz, P.E.

I have reviewed portions of the materials submitted to the Department in support of the referenced operation permit renewal application for the West Pasco Class III Landfill, prepared on behalf of Pasco County Utilities, received August 4, 2006 and February 2, 2007. The materials that I reviewed were related to the hydrogeologic investigation and monitoring plan that had been prepared for the pending permit application include the following:

- Document entitled "Operation Permit Renewal Application for the West Pasco Class III Landfill," dated February 2007, prepared by Camp Dresser & McKee, Inc., (CDM), received February 2, 2007, including:
  - DEP Form #62-701.900(1), signed/sealed January 31, 2007,
  - Attachment 1 – Landfill Operations Plan for West Pasco Class III Landfill, revised January 2007
  - Attachment 2 – Financial Assurance
  - Attachment 3 – Leachate Collection Lines – Jet Cleaning Report
- Document entitled "Water Quality Monitoring Plan Evaluation, 2004 – 2006, West Pasco Class III Landfill" (WQMPE), dated August 3, 2006, prepared by MACTEC Engineering and Consulting, Inc. (MACTEC), received August 4, 2006.

Additional information is needed to evaluate the adequacy of the monitoring plan. Please have the applicant address the following comments that refer to the permit application form and sections of the referenced submittals. Please have the applicant provide revised submittals, or replacement pages to the submittals, that use a ~~strike through~~ and underline format, or similar format, to facilitate review. Please also have the applicant include the revision date as part of the header/footer for all revised or replacement pages (including text, figures, tables, forms appendices and site plans).

### **Part B – Disposal Facility General Information**

1. **B.13.:** It was indicated that the property was recorded as a disposal site in the County Land Records. Please submit a response that indicates if this has been done to complete the requirements of Rule 62-701.610(5), F.A.C. (Declaration to the Public). If so, please provide a certified copy of the County record including the legal description and a scale-drawn map for that part of the property that has been so recorded.

### **Part I – Hydrogeological Investigation Requirements (Rule 62-701.410, F.A.C.)**

2. **I.1.a., through I.1.i., and I.2.:** A "N/C" entry was provided for each of these items of the application form, however the document(s) that provided the hydrogeological information was not referenced. Please submit a revised application form for each of these items that references the document(s) that includes the subject information. Please provide the title and date of the document, identify who prepared the document, verify that the document is available in the Department's current files and remains valid. In the event that the referenced document(s) cannot be located in the Department's current files, please resubmit the information. In the event that supplemental information is provided, please submit an original that is signed/sealed by the professional geologist or professional engineer with experience in hydrogeologic investigations, and submit revised portions of the application form that reference the supplemental information.

*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

**Part M – Water Quality and Leachate Monitoring Requirements (Rule 62-701.510, F.A.C.)**

3. **M.1.:** This item of the application form referenced the GWMPE prepared by MACTEC and the note at the top of page 32 of DEP Form 62-701.900(1) indicates that the GWMPE document prepared by MACTEC dated August 2006 provides the information requested by Part M of the form. Accordingly, the GWMPE will be considered as the document that describes the “monitoring plan” for West Pasco Class III Landfill and that it replaces all previously submitted monitoring plan documents. **This comment is presented for informational purposes and does not require a response.**
4. **M.1.a.:** The GWMPE dated August 2006 was not signed or sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations. Please submit a revised GWMPE that is signed/sealed.
5. **M.1.b.:** This item of the application form requires all sample collection and analysis to be performed in accordance with Chapter 62-160, F.A.C. Section 1.2 of the GWMPE indicated that the Pasco County Environmental Laboratory and subcontracted laboratories utilize procedures and methods described in their DEP-approved Comprehensive Quality Assurance Plans (CompQAPs). Please note that Rule 62-160.300, F.A.C., requires all laboratories submitting data to DEP to be certified by the Florida Department of Health, Environmental Laboratory Certification Program. Please submit revisions to Section 1.2 of the GWMPE that delete references to analytical laboratory CompQAPs and refer to the DOH certifications for all laboratories.
6. **M.1.c.(1):** It does not appear that the GWMPE describes the location of the detection wells relative to the landfill cells (within 50 feet in the downgradient direction). Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
7. **M.1.c.(2):** It does not appear that the GWMPE indicates that there are currently no downgradient compliance wells located at the edge of the zone of discharge at the West Pasco Class III Landfill. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
8. **M.1.c.(5):** It does not appear that the GWMPE describes the spacing for background and detection wells at the West Pasco Class III Landfill. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
9. **M.1.c.(6):** It does not appear that the GWMPE provides a justification for well screen locations relative to the uppermost aquifer and other aquifers reasonably expected to be affected by the landfill (see Rule 62-701.510(2)(b), F.A.C.). Please submit revisions to Section 1.3.1 or other sections of the GWMPE to discuss the presence of the confining unit and occurrence of ground water (surficial and Floridan aquifers) at the West Pasco Class III Landfill to address this item of the application form, as appropriate.
10. **M.1.c.(7):** It does not appear that the GWMPE provides the procedures for properly abandoning monitor wells. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
11. **M.1.c.(8):** Please submit a revised application form for this item that provides a “N/A” entry as leak detection sensors have not been installed at the West Pasco Class III Landfill.
12. **M.1.d.(1) and M.1.d.(2):** Please submit a revised application form for these items that provides a “N/A” entry as surface water monitoring is not conducted at the West Pasco Class III Landfill.
13. **M.1.e.:** Please submit revisions to Section 1.3.2 of the GWMPE to provide a description of the leachate sampling locations at Tank #1 and Tank #2.

14. **M.1.f.(1):** It does not appear that the GWMPE provides the list of parameters for initial ground water sampling events to comply with the requirements of Rule 62-701.510(6)(b)2, F.A.C. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
15. **M.1.f.(4):** Please submit a revised application form for this item that provides a “N/A” entry as surface water sampling is not conducted at West Pasco Class III Landfill.
16. **M.1.g.:** It does not appear that the GWMPE provides the procedures for implementing evaluation monitoring, prevention measures and corrective actions. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
17. **M.1.h.(1):** It does not appear that the GWMPE provides the reporting requirements for routine ground water and leachate monitoring. Please submit revisions to Section 1.3.1 or other sections of the GWMPE to address this item of the application form, as appropriate.
18. **M.1.h.(2):** Please submit responses to the following comments that refer to sections of the GWMPE:  
Section 1.2 – FDEP-Approved Comprehensive Quality Assurance Plan  
a. Please submit revisions to this section that address comment #5, above.

Section 1.3.1 – Water Quality Monitoring Plan

b. This section refers to the summary of monitor well construction details provided in Table 1. It appears that some of the information provided in Table 1 is inconsistent with the monitor well construction details provided in Attachment 9 of the letter prepared by CDM dated July 12, 2001 (re: West Pasco Class III Landfill, Permit Renewal Application, Responses to Request for Additional Information”) or the attachments to the letter prepared by QORE, Inc., dated December 4, 2001 (re: Repair of Monitor Well 4MW-7, West Pasco Class III Landfill). Please submit responses, and revisions to Table 1 as appropriate, to address the following comments:

- i) **All wells** – the top of well screen and bottom of well screen elevations appear to be inconsistent with the land surface elevation and total depth information provided
- ii) **All Surficial Aquifer Wells** – the screen lengths appear to be a range of depths below land surface rather than lengths
- iii) **All Floridan Aquifer Wells** – no open hole lengths were provided; please account for the surface casing lengths provided on the Monitor Well Completion Reports included as Attachment 9 of the CDM letter when calculating the open hole intervals of these wells
- iv) **All Wells** – please provide locations of each well in degrees, minutes and seconds of latitude and longitude rather than in northings and eastings to comply with Rule 62-701.510(3)(d)1, F.A.C.
- v) **Well 2MW-3A** – please provide top of casing and ground surface elevations
- vi) **Well 2MW-3A** – please verify that the total depth of this surficial aquifer well (40 feet) is the same as indicated for Floridan aquifer well 4MW-3A (40 feet).
- vii) **Well 2MW-8** – the indication that this well was installed on April 12, 1992 is inconsistent with Attachment 9 of the CDM letter which provided a well completion report that indicated it was installed on June 12, 1990; in the event that this well was repaired or replaced in 1992, please provide a copy of the updated well completion report
- viii) **Well 2MW-8** – based on the land surface elevation and total depth provided in Table 1, the bottom of the well should be at ~36.5 feet NGVD; ground water elevations reported for three of the five sampling events during the review period were below 36.5 feet NGVD as indicated in Table 2 (March 2004 at 36.41 feet NGVD; August 2004 at 35.66 feet NGVD; February 2005 at 34.75 feet NGVD); please review this apparent inconsistency and submit revised information (routine sampling event ground water elevations and/or ground water elevations in Table 1 and Table 2)

- ix) **Well 2MW-9** – the indication of “N/A” for maximum ground water elevation is inconsistent with the ground water elevation reported during the August 2004 sampling event (39.57 feet NGVD)
- x) **Well 2MW-10** – the indication of “N/A” for maximum ground water elevation is inconsistent with the ground water elevation reported during the August 2004 sampling event (39.23 feet NGVD)
- xi) **Well 4MW-7** – please provide revised well construction details that are consistent with the attachments to the QORE, Inc., letter
- xii) **Wells 4MW-8 and 4MW-9** – the indication that these wells are completed with 4-inch diameter screen is inconsistent with Attachment 9 of the CDM letter which provided well completion reports that indicated these wells were completed with open hole sections rather than well screens

Section 1.3.2 – Leachate Monitoring Plan

c. Please submit revisions to this section to indicate how leachate samples are collected from Tank #1 and Tank #2.

d. Please submit revisions to this section to address the criteria for implementing the monthly leachate sampling and analysis required by Rule 62-701.510(6)(c)2, F.A.C.

Section 2.4.2 – Ground Water Flow Direction

e. The indication in this section that ground water flow in the Floridan aquifer indicates a general northwesterly trend is inconsistent with the contour lines drawn on Figures 5, 7, 9, 11 and 13 that appear to indicate east to southeast directions of flow. Please review this apparent inconsistency and submit revisions to this section or the referenced figures, as appropriate.

Section 2.4.3 – Ground Water Gradient

f. Please submit revisions to this section to provide a range of hydraulic gradient calculations based on each of the ground water contour maps provided for the period of review (March 2004 through March 2006). Please also provide calculations of hydraulic gradient between locations that represent flow lines that are approximately perpendicular to the contour lines. The calculations of hydraulic gradient between wells 4MW-3A/4MW-7 and 4MW-9/4MW-7 for the September 2005 water level measurements provided in this section are considered to underestimate hydraulic gradient as the flow lines between these locations appear to be along the contour lines.

Section 2.4.4 – Ground Water Flow Velocity

g. The use of estimated hydraulic conductivity values from published data (not referenced) for sand does not represent site conditions (Floridan aquifer wells originally constructed as open hole in limestone sediments), does not address the requirements of Rule 62-701.410(1)(a)1, F.A.C. (i.e., the hydrogeological investigation shall be site specific to define the direction and rate of ground water flow, including seasonal variations), and is inconsistent with Attachment 10 of the letter prepared by CDM dated July 12, 2001. Please submit revisions to this section and provide calculations of ground water flow velocity using the hydraulic conductivity value for the slug test data conducted at well 4MW-13D and also address the responses to comment #18e., and #18.f., above.

Section 4.0 – Leachate Data

h. Based on Figure 4 provided in Attachment 1 (Landfill Operations Plan), it appears that Tank #1 receives leachate from Cells #1 and #2, and that Tank #2 receives leachate from Cell #3 and #4. It was indicated during the pre-application meeting conducted on September 1, 2006 that waste had been placed in Cells #1 and #2. Please clarify why routine leachate sampling events have included both Tank #1 and #2 if waste has not yet been placed in Cell #3 and #4.

Section 4.2.11 – Organic Parameters

i. Please submit revisions to this section and Table 28 to summarize the results reported for the analysis of 4-methyl-2-pentanone during the September 2004 and March 2006 sampling events.

Section 5.1 – Sampling Locations

j. Please submit revisions to ¶1 of this section to be consistent with the responses provided to comment #18.b.viii., #18.b.ix., and #18.b.x., above, regarding the occurrence of ground water in surficial aquifer wells 2MW-8, 2MW-9 and 2MW-10.

k. Please submit revisions to ¶2 of this section to be consistent with the responses provided to comment #18.e., above, regarding the direction of ground water flow based on water levels measured at the Floridan aquifer wells at the facility.

l. Please submit revisions to ¶2 of this section to discuss the adequacy of the existing Floridan aquifer well locations relative to the direction of ground water flow and the configuration of Cells #1 through #4 to meet the requirements of Rule 62-701.510(9)(b)8, F.A.C. In the event that the designated detection wells (4MW-7, 4MW-8 and 4MW-9) are not considered to be adequate to meet the requirements of Rules 62-701.510(3)(a), F.A.C. (“Two or more detection wells shall be located within the zone of discharge hydraulically downgradient from the solid waste disposal unit . . .”) and 62-701.510(3)(d)3, F.A.C. (“Well spacing shall be spaced no greater than 500 feet apart across the downgradient direction of ground water flow . . .”), please submit revisions to this section that provide locations and justification of construction details for supplemental monitor wells.

Section 5.2 – Monitoring Frequency

m. Please submit revisions to this section to be consistent with the response provided to comment #18.g., above, regarding ground water velocity.

Section 6.0 – Summary and Recommendations

n. Please submit revisions to the second recommendation bullet item to be consistent with the response provided to comment #18.l., and #18.m., above, regarding the adequacy of the water quality sampling locations and sampling frequency, respectively.

I can be contacted at 813-632-7600, extension 336, to discuss these review comments.

jrm

62-110.106 (6) Public Notice of Application and Proposed Agency Action  
Publication of a notice of application shall be required for those projects that, because of their size, potential effect on the environment or natural resources, controversial nature, or location, are reasonably expected by the Department to result in a heightened public concern or likelihood of request for administrative proceedings. If required, the notice shall be published by the applicant one time only within fourteen days after a complete application is filed and shall contain the name of the applicant, a brief description of the project and its location, the location of the application file, and the times when it is available for public inspection. The notice shall be prepared by the Department and shall comply with the following format:

State of Florida  
Department of Environmental Protection  
Notice of Application  
File No.: 26254-001-SO/T3

The Department announces the receipt of an application for permit renewal from Mr. John Power, Solid Waste Facility Manager, for operation of a Class III Landfill, located at 14230 Hays Road, Spring Hill, Pasco County, Florida.

This application is being processed and is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m. Monday through Friday, except legal holidays, at the Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.



**Stormwater Management Report**  
**for**  
**West Pasco Solid Waste System Upgrade**  
**Pasco County, FL**

Submitted to:  
Florida Department of Environmental Protection  
Pasco County Development Review

Prepared for:



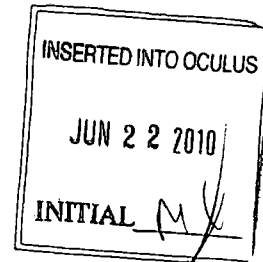
7530 Little Rd.  
New Port Richey, FL 34654  
(800) 368-2411

Prepared by:



3011 SW Williston Road  
Gainesville, Florida 32608  
(352) 335-7991

Dept. of Environmental  
Protection  
JUN 16 2010  
Southwest District

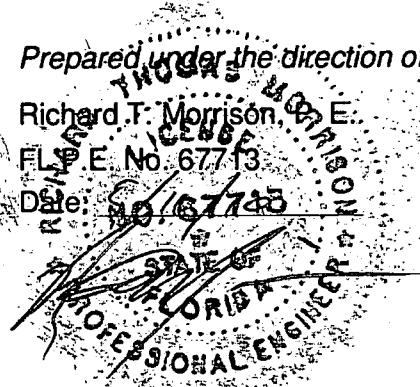


Prepared under the direction of:

Richard T. Morrison, P.E.

FL P.E. No. 67713

Date: 6/16/2010



# Index

		Page No.
I.	Title	3
II.	Overview	3
III.	Stormwater Requirements	3
IV.	Stormwater Calculations	3
V.	Conclusions	6
Attachment A	Supporting Data	7
Attachment B	Drainage Maps	8
Attachment C	TR 55 Stormwater Calculations	9
Attachment D	Geotechnical Reports	10
Attachment E	ICPR Model	11
Attachment F	Storm Pipe Calculations	12

Dept. of Environmental  
Protection  
JUN 16 2010  
Southwest District



**CH2MHILL**

3011 SW Williston Road  
Gainesville, Florida 32608

I. Title: West Pasco Solid Waste System Upgrade

II. Overview

Pasco County proposes a new scale house, new scales, citizen drop off area, and related paving at their West Pasco Class III Landfill property.

See the construction drawings for location map and proposed improvements.

III. Stormwater Requirements

The following are required stormwater management performance criteria for the proposed development:

a. **Stormwater treatment** for an on-line system shall treat the runoff from the first one-inch of rainfall, or as an option for projects or project subunits with drainage areas less than 100 acres, the first one-half inch of runoff. The total treatment volume shall again be available within 72 hours.

b. The **runoff rate** leaving the site post-development shall not exceed the stormwater runoff rate leaving the site pre-development (existing conditions) for the local 25-year, 24-hour duration storm event (9.5 inches) (**Attachment A**).

c. The **storm pipes** shall be designed for the ten year, 15 minute storm event per Pasco County requirements.

IV. Stormwater Calculations

As shown in **Attachment B**, the development has been divided into 4 drainage areas for analysis. The pre development drainage areas are the same as the post development drainage areas.

**STORMWATER TREATMENT:**

Since the drainage areas are less than 100 acres, the treatment volume is calculated from the first one-half inch of runoff. As shown in **Attachment C**, the required treatment volumes are:

Drainage Area #	Required Treatment Volume
1	3,225 cf
2	1,472 cf
3	10,944 cf
4	3,031 cf

Dry retention ponds will provide treatment through percolation into the soil.

Pond #	Treatment Volume Stage	Overflow Structure Elevation
1	45.7 ft	47.9 ft
2	47.3 ft	48.2 ft
3	40.3 ft	41.5 ft
4	47.8 ft	48.0 ft

Treatment Volume Recovery Calculations (based on Section 26.3.3 of the SJRWMD Applicants Handbook):

Design Infiltration Rate,  $I_d$ :

$I_d = K_{vu}/FS$  ( $K_{vu}$  = unsaturated vertical hydraulic conductivity (from Geotechnical Report, **Attachment D**) = 8.5 in/hr,  $FS$  = factor of safety = 2.0)

$$I_d = 8.5 \text{ in/hr} / 2.0 = 4.25 \text{ in/hr}$$

Time to Saturate Soil Below the Basin,  $t_{sat}$ :

$t_{sat} = (f \cdot h_b) / I_d$  ( $f$  = fillable porosity = 0.3,  $h_b$  = height of basin bottom above the groundwater table)

The seasonal high groundwater table is assumed to be 6 feet below the ground surface (from Geotechnical Report, **Attachment D**). This is approximately elevation 42 for both ponds 1 and 2, elevation 39 for pond 3, and elevation 43 for pond 4. The bottom of Pond 1 is at elevation 45, therefore  $h_b$  is 3 feet or 36 inches. The bottom of Pond 2 is at elevation 47, therefore  $h_b$  is 5 feet or 60 inches. The bottom of Pond 3 is at elevation 41, therefore  $h_b$  is 2 feet or 24 inches. The bottom of Pond 4 is at elevation 47, therefore  $h_b$  is 4 feet or 48 inches.

**Pond 1**

$$t_{sat} = (0.3 \cdot 36 \text{ in}) / 4.25 \text{ in/hr} = 2.54 \text{ hrs}$$

**Pond 2**

$$t_{sat} = (0.3 \cdot 60 \text{ in}) / 4.25 \text{ in/hr} = 4.24 \text{ hrs}$$

**Pond 3**

$$t_{sat} = (0.3 \cdot 24 \text{ in}) / 4.25 \text{ in/hr} = 1.69 \text{ hrs}$$

**Pond 4**

$$t_{sat} = (0.3 \cdot 48 \text{ in}) / 4.25 \text{ in/hr} = 3.39 \text{ hrs}$$

Volume of Water Required to Saturate the Soil Below the Basin,  $V_u$ ;

$V_u = A_b \cdot h_b \cdot f$  ( $A_b$  = Area of Basin Bottom (3627 sf for Pond 1, 3669 sf for Pond 2, 39456 for Pond 3, and 2268 for Pond 4))

**Pond 1**

$$V_u = 3,627 \text{ sf} \cdot 3 \text{ ft} \cdot 0.3 = 3,264 \text{ cf}$$

**Pond 2**

$$V_u = 3,669 \text{ sf} \cdot 5 \text{ ft} \cdot 0.3 = 5,504 \text{ cf}$$

**Pond 3**

$$V_u = 39,456 \text{ sf} \cdot 2 \text{ ft} \cdot 0.3 = 23,674 \text{ cf}$$

**Pond 4**

$$V_u = 2,268 \text{ sf} \cdot 4 \text{ ft} \cdot 0.3 = 2,722 \text{ cf}$$

Since the treatment volume is less than  $V_u$  for ponds 1, 2 and 3, recovery will occur entirely in vertical unsaturated conditions. Likewise, the treatment volume recovery time will be less than the time to saturate the soil below the basin for both ponds. Therefore, these three ponds will recover within the 72 hours required.

For Pond 4, only 2,722 cf recovers in vertical unsaturated conditions. Therefore, 309 cf of the treatment volume (3,031 cf – 2,722 cf) remains to be recovered under saturated lateral flow. The stage for 309 cf in the pond is 47.1 ft.

Height of water level above initial groundwater table at full recovery,  
 $h_c = h_b = 4$  ft

Height of water in the basin at the start of saturated lateral flow,  
 $h_2 = 47.1 - 47.0 = 0.1$  ft

$HT = h_b + h_2 = 4 + 0.1 = 4.1$  ft

$F_y = h_c/HT = 4 \text{ ft} / 4.1 \text{ ft} = 0.98$

Basin length to width ratio,  
 $L/W = 370 \text{ ft} / 6 \text{ ft} = 62$

From Figure 26-7 (SJRWMD Applicants Handbook),  $F_x = 10$

The depth to the confining layer is assumed to be 20 feet below the ground surface (from Geotechnical Report, **Attachment D**). For Pond 4, this is approximate elevation 29.

Initial saturated thickness of the aquifer,  
 $H = 43 - 29 = 14$  ft

Average saturated thickness of the aquifer,  
 $D = H + h_c/2 = 14 \text{ ft} + 4\text{ft}/2 = 16$  ft

Saturated horizontal hydraulic conductivity,  
 $KH = 1.5K_{vs}$  (from past experience)  
 $K_{vs} = (3/2)K_{vu} = (3/2)8.5 \text{ in/hr} = 12.75 \text{ in/hr}$   
 $KH = 1.5 \times 12.75 \text{ in/hr} = 19 \text{ in/hr}$

Time to recover the remaining treatment volume under lateral saturated conditions,

$t = (W^2)/(4 \times KH \times D \times (F_x^2)) = (72\text{in}^2)/(4 \times 19 \text{ in/hr} \times 192 \text{ in} \times (10^2)) = 0.004$  hrs

Total time to recover the treatment volume for Pond 4;  
 $t_{\text{total}} = t_{\text{sat}} + t = 3.39 \text{ hrs} + 0.004 \text{ hrs} = 3.394 \text{ hrs}$

Since, for all four ponds, the treatment volume stage is below the overflow structure elevation and the recovery is within 72 hours, the stormwater treatment requirement is met.

**RUNOFF RATE:**

Infiltration is not considered in ICPR routing. This is a conservative calculation of peak stage and discharge.

As shown in **Attachment E**, the peak runoff rates are:

Pre Development Runoff Rates:

Drainage Area #	Peak Runoff Rate	
	25 year storm	
1	2.81 cfs	Flowing to the west
2	1.28 cfs	Flowing to the low area to the south
3	7.17 cfs	Flowing to the low area to the south
4	1.99 cfs	Flowing to the low area to the south

Areas 2, 3, and 4 discharge to the low area to the south. The peak discharge from these areas is 10.44 cfs.

Post Development Runoff Rates:

Pond #	Peak Runoff Rate	Max Stage	Freeboard
	25 year storm	25 year storm	25 year storm
1	2.32 cfs	48.07	0.53 ft
2	See below	48.40	0.60 ft
3	See below	42.09	0.91 ft
4	See below	48.42	0.58 ft

Ponds 2, 3, and 4 discharge to the low area to the south. The peak discharge rate from these ponds is 9.71 cfs as shown in the "Offsite East" boundary node in the ICPR output in Attachment E.

As shown above, the runoff rate for the 25 year storm was not increased to the west or to the south due to the proposed construction. Therefore the requirement that the proposed development does not increase the runoff rate from the previous condition is met.

**STORM PIPES:**

As shown in **Attachment F**, the storm pipes can handle the 10 year, 15 minute storm event.

V. **Conclusions**

As discussed herein, the proposed stormwater management system is designed to be in compliance with the requirements of FDEP and Pasco County.

Attachment A  
Supporting Data

Table 2-2a Runoff curve numbers for urban areas <sup>1/</sup>

Cover description	Average percent impervious area <sup>2/</sup>	Curve numbers for hydrologic soil group			
		A	B	C	D
<i>Fully developed urban areas (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) <sup>3/</sup> :					
Poor condition (grass cover < 50%) .....		68	79	86	89
Fair condition (grass cover 50% to 75%) .....		49	69	79	84
Good condition (grass cover > 75%) .....		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way) .....		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way) .....		98	98	98	98
Paved; open ditches (including right-of-way) .....		83	89	92	93
Gravel (including right-of-way) .....		76	85	89	91
Dirt (including right-of-way) .....		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) <sup>4/</sup> .....		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders) .....		96	96	96	96
Urban districts:					
Commercial and business .....	85	89	92	94	95
Industrial .....	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses) .....	65	77	85	90	92
1/4 acre .....	38	61	75	83	87
1/3 acre .....	30	57	72	81	86
1/2 acre .....	25	54	70	80	85
1 acre .....	20	51	68	79	84
2 acres .....	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas					
(pervious areas only, no vegetation) <sup>5/</sup> .....		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

<sup>1/</sup> Average runoff condition, and  $I_a = 0.2S$ .

<sup>2/</sup> The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

<sup>3/</sup> CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

<sup>4/</sup> Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

<sup>5/</sup> Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.



Table 2-2c Runoff curve numbers for other agricultural lands <sup>1/</sup>

Cover type	Cover description	Hydrologic condition	Curve numbers for hydrologic soil group			
			A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. <sup>2/</sup>		Poor	68	79	86	89
		Fair	49	69	79	84
		Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.		—	30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. <sup>3/</sup>		Poor	48	67	77	83
		Fair	35	56	70	77
		Good	30 <sup>4/</sup>	48	65	73
Woods—grass combination (orchard or tree farm). <sup>5/</sup>		Poor	57	73	82	86
		Fair	43	65	76	82
		Good	32	58	72	79
Woods. <sup>6/</sup>		Poor	45	66	77	83
		Fair	36	60	73	79
		Good	30 <sup>4/</sup>	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots.		—	59	74	82	86

<sup>1</sup> Average runoff condition, and  $I_a = 0.2S$ .

<sup>2</sup> *Poor*: <50% ground cover or heavily grazed with no mulch.

*Fair*: 50 to 75% ground cover and not heavily grazed.

*Good*: > 75% ground cover and lightly or only occasionally grazed.

<sup>3</sup> *Poor*: <50% ground cover.

*Fair*: 50 to 75% ground cover.

*Good*: >75% ground cover.

<sup>4</sup> Actual curve number is less than 30; use CN = 30 for runoff computations.

<sup>5</sup> CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

<sup>6</sup> *Poor*: Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.

*Fair*: Woods are grazed but not burned, and some forest litter covers the soil.

*Good*: Woods are protected from grazing, and litter and brush adequately cover the soil.

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

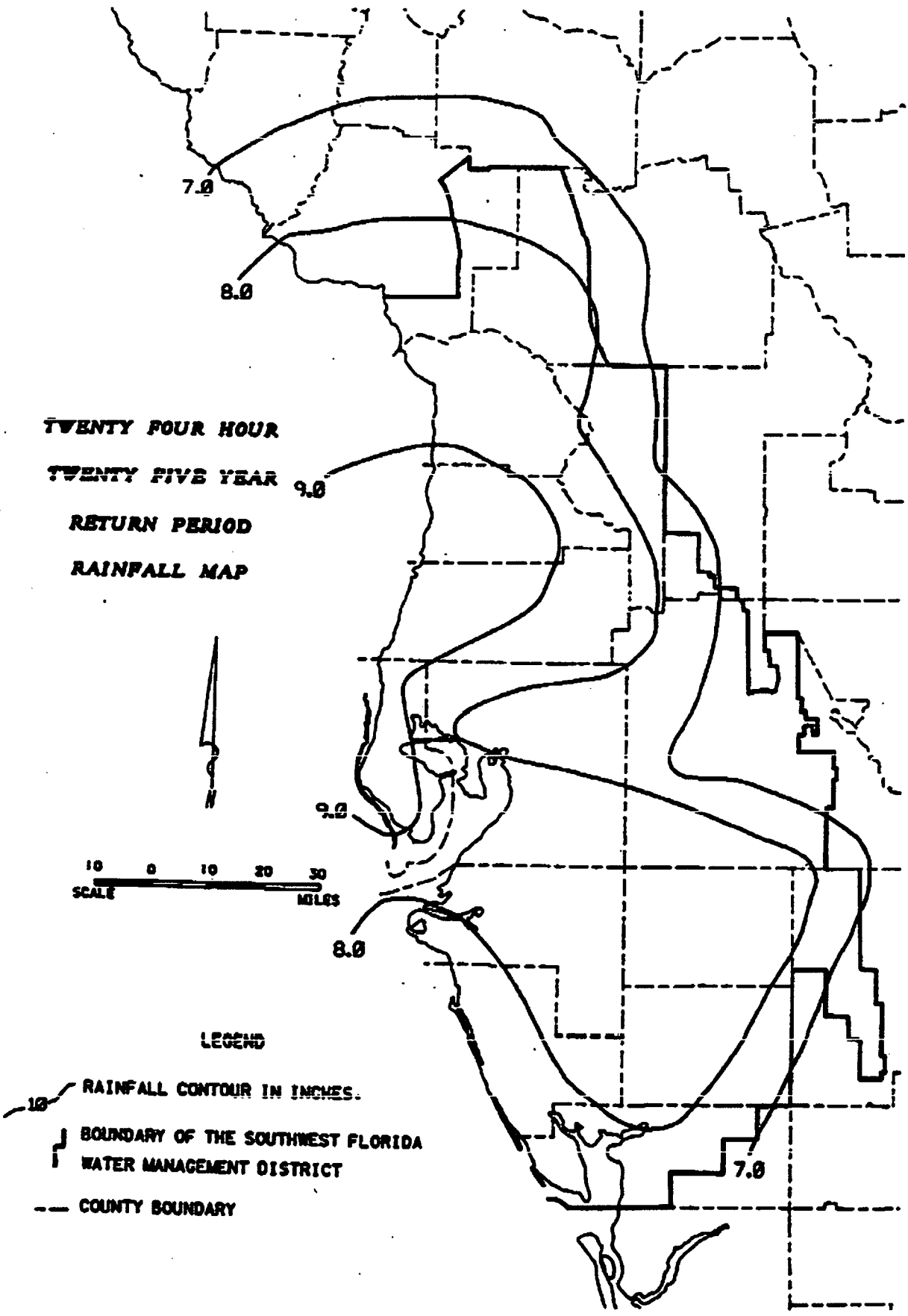
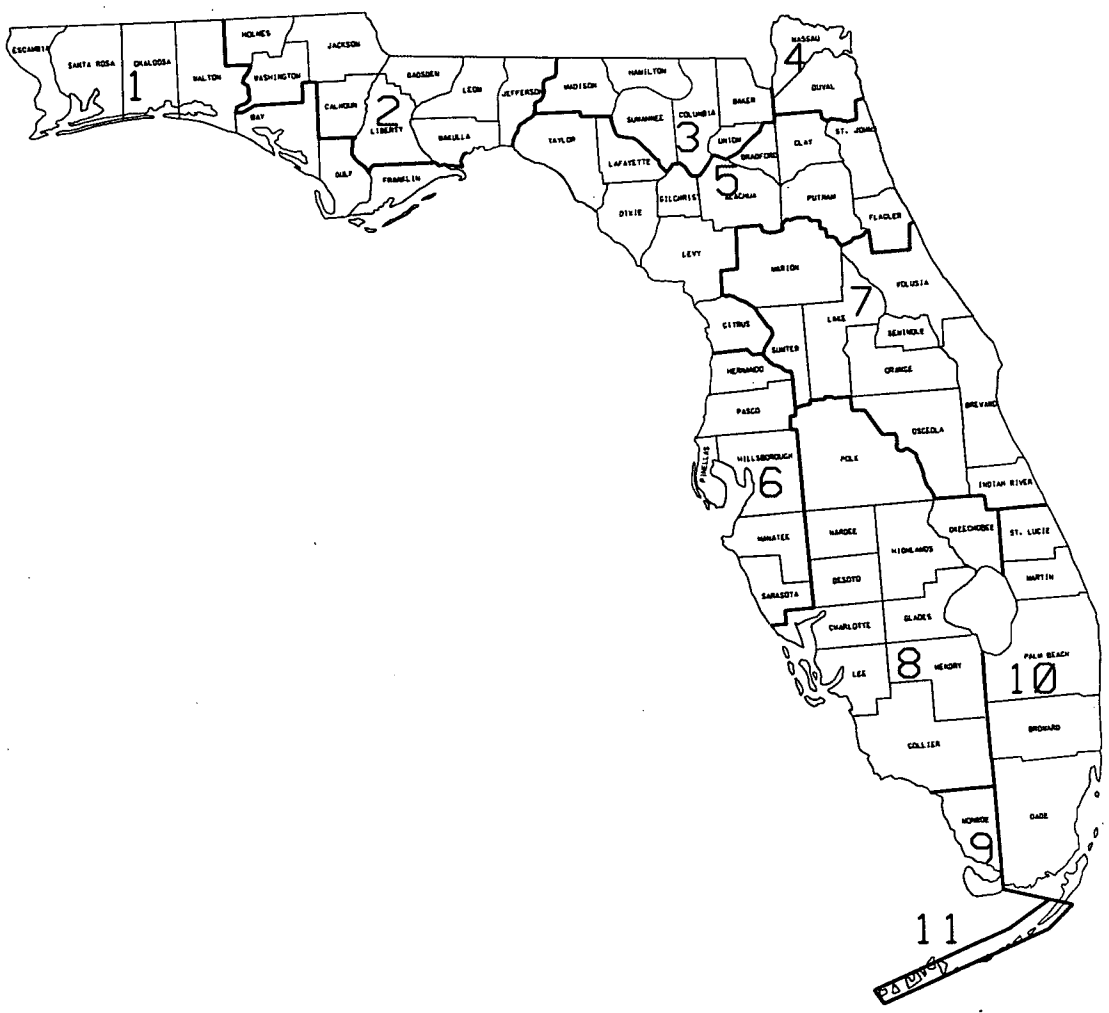
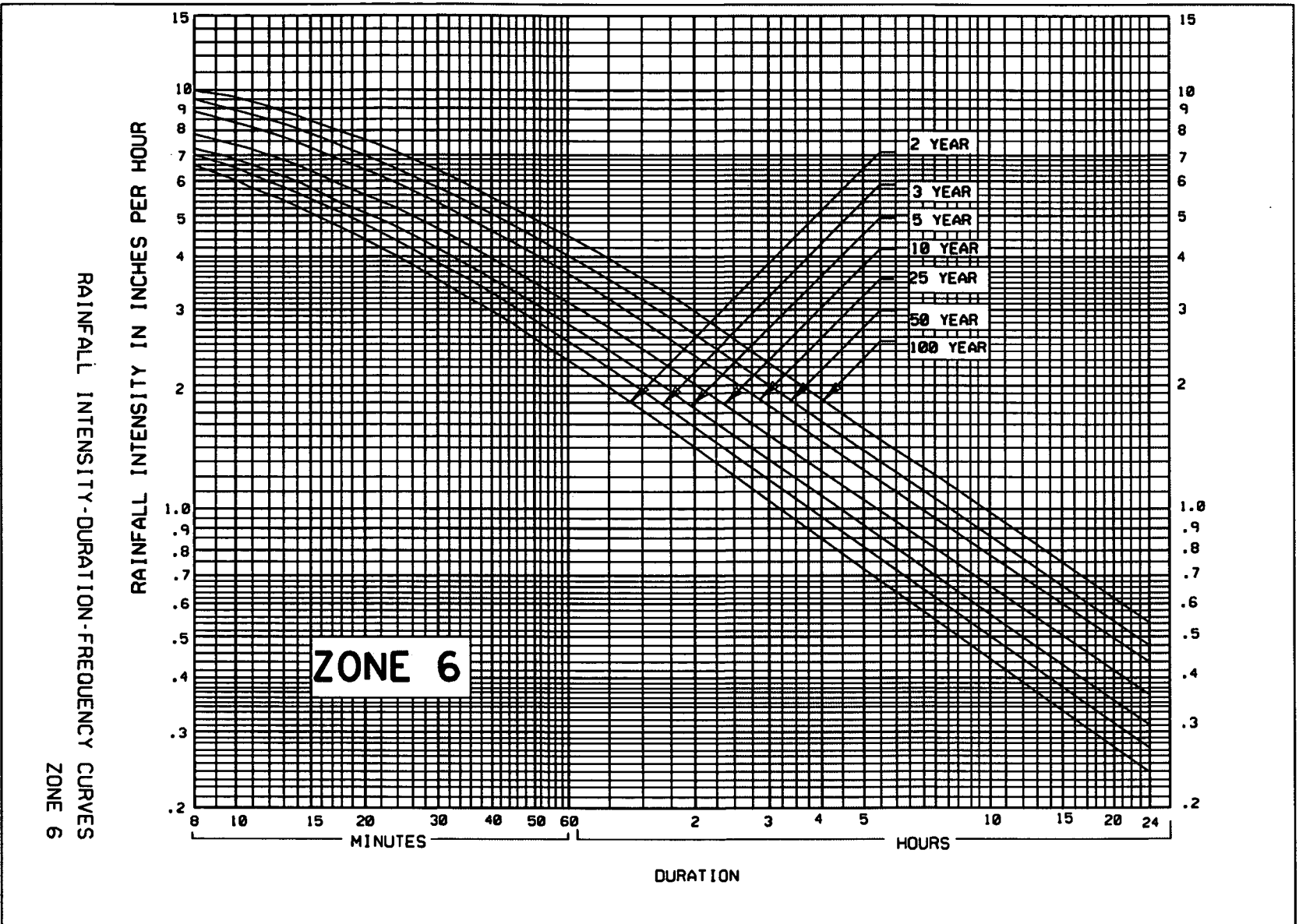


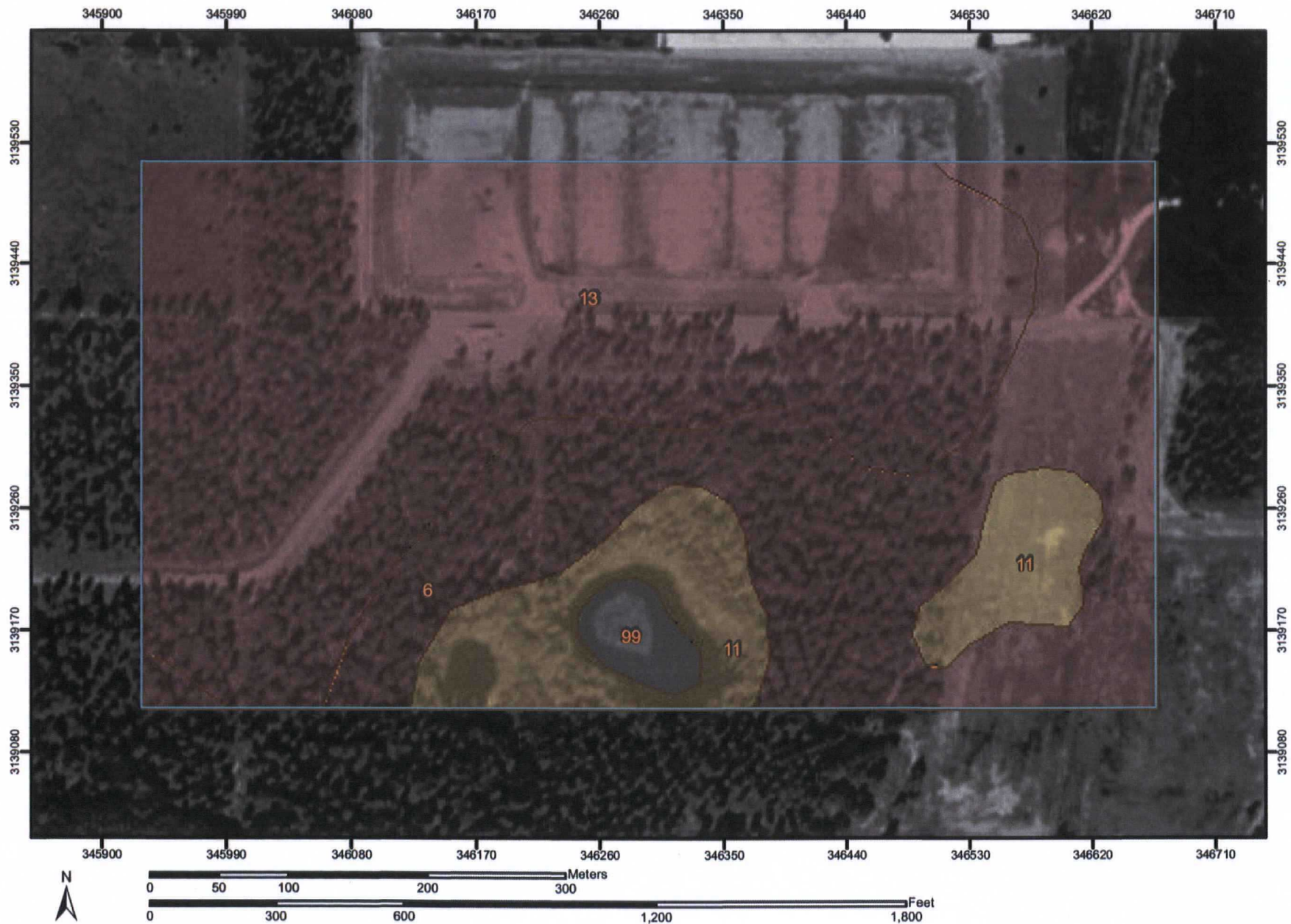
FIGURE D-5

ZONES FOR PRECIPITATION IDF CURVES DEVELOPED BY THE DEPARTMENT






Hydrologic Soil Group-Pasco County, Florida



### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Units

**Soil Ratings**

 A

 A/D

 B

 B/D

 C

 C/D

 D

 Not rated or not available

**Political Features**

**Municipalities**

 Cities

 Urban Areas

**Water Features**

 Oceans

 Streams and Canals

**Transportation**

 Rails

**Roads**

 Interstate Highways

 US Routes

 State Highways

 Local Roads

 Other Roads

### MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: UTM Zone 17N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pasco County, Florida  
 Survey Area Data: Version 6, Aug 30, 2007

Date(s) aerial images were photographed: 12/31/1998

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Pasco County, Florida				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
6	Tavares sand, 0 to 5 percent slopes	A	23.6	32.0%
11	Adamsville fine sand	C	8.7	11.8%
13	Candler fine sand, 0 to 5 percent slopes	A	40.1	54.5%
99	Water		1.2	1.7%
Totals for Area of Interest (AOI)			73.6	100.0%

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

**Group A.** Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

**Group B.** Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

**Group C.** Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

**Group D.** Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

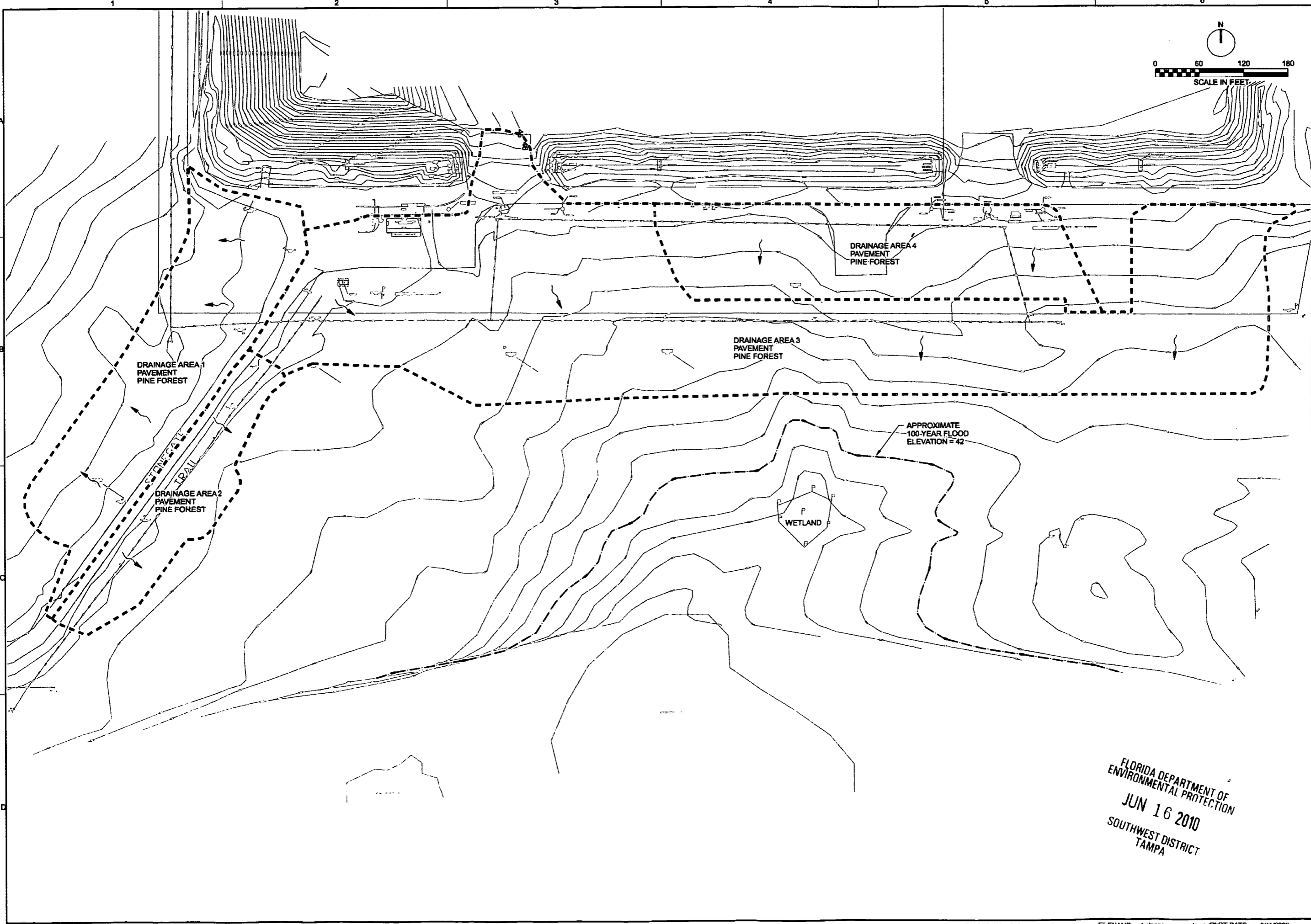
*Aggregation Method: Dominant Condition*

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Lower*

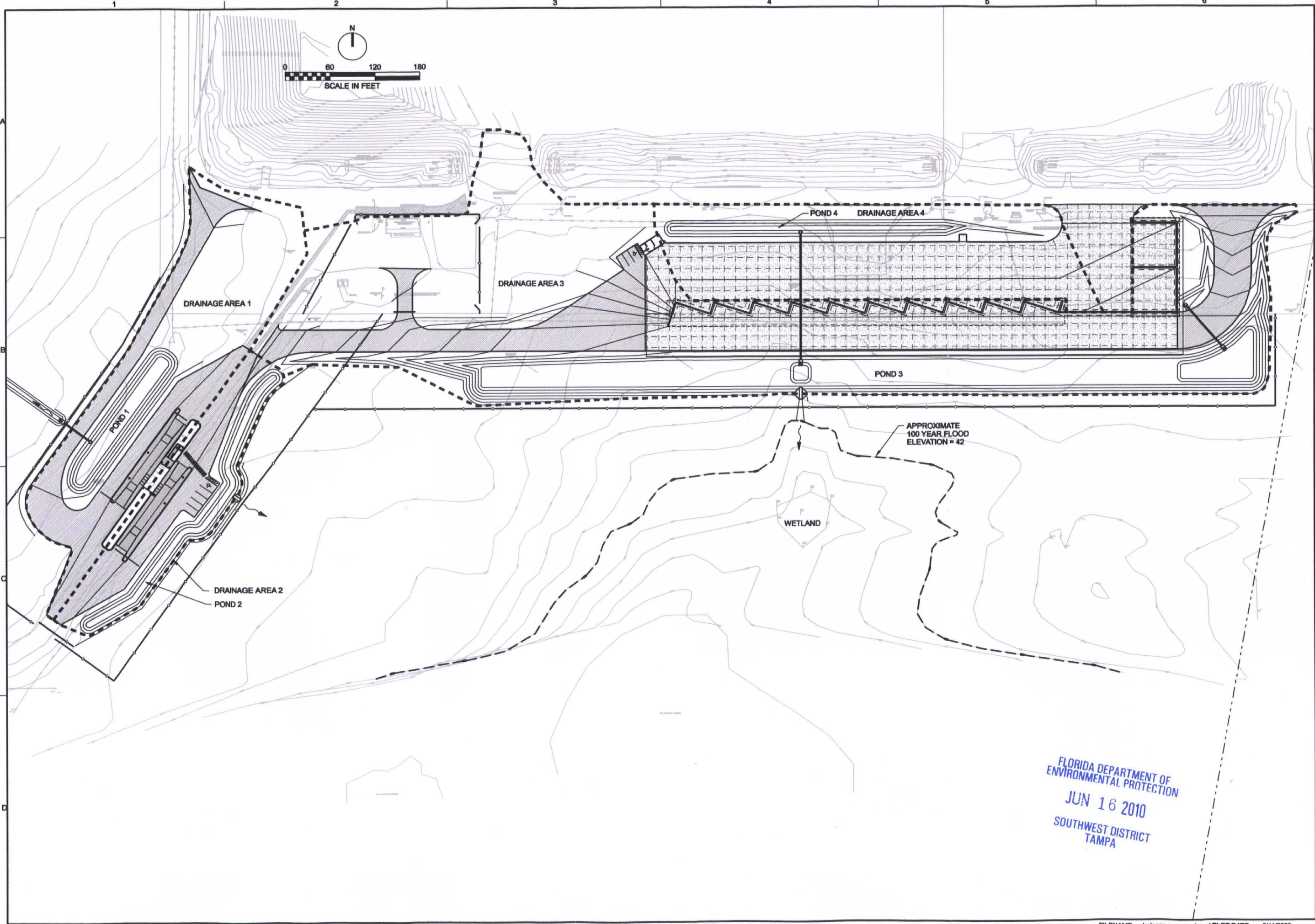


Attachment B  
Drainage Maps



3011 SW WILLISTON RD GAINESVILLE, FLORIDA 32608 EB0000072 AAC001992		SOLID WASTE SYSTEM UPGRADE DESIGN PASCO COUNTY PASCO COUNTY, FLORIDA	
<b>CH2MHILL</b> CIVIL WEST PASCO SITE PRE DEVELOPMENT DRAINAGE MAP		NO. DATE DSGN	
DATE PROJ DWG SHEET		DESCRIPTION REVISION CHK DR APVD BY APVD R MORRISON C KOHLER R MORRISON	
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"		REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS THE PROPERTY OF CH2M HILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2M HILL. © CH2M HILL 2006. ALL RIGHTS RESERVED.	

FLORIDA DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION  
 JUN 16 2010  
 SOUTHWEST DISTRICT  
 TAMPA



3011 SW WILLISTON RD GAINESVILLE, FLORIDA 32608 EB0000072 AAC001952		SOLID WASTE SYSTEM UPGRADE DESIGN PASCO COUNTY PASCO COUNTY, FLORIDA	
<b>CH2MHILL</b>		CIVIL WEST PASCO SITE POST DEVELOPMENT DRAINAGE MAP	
NO. DATE	DESCRIPTION	APVR. N	BY APVD
1 05/11/2009	DR	R. MORRISON	R. MORRISON
2 06/16/2010	CHK	C. KOHLER	C. KOHLER
3 06/16/2010	APVD	R. MORRISON	R. MORRISON

REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS THE PROPERTY OF CH2M HILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2M HILL. © CH2M HILL 2009. ALL RIGHTS RESERVED.

ISSUED FOR DESIGN DEVELOPMENT

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
JUN 16 2010  
SOUTHWEST DISTRICT  
TAMPA

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"

DATE	
PROJ	
DWG	
SHEET	

Attachment C

TR 55 Stormwater Calculations

## Worksheet 2: Runoff Curve Number and Total Runoff

Project West Pasco	By RTM	Date December 9, 2008
Location Area 1 Pre	Checked CK	Date

### 1. Runoff Curve Number

Soil Name	Hydrologic Group	Cover Description	Curve Number			Area X Ac. mi <sup>2</sup> %	Product of CN X Area
			Table 2-2	Figure 2-3	Figure 2-4		
	A	Impervious	98			0.248	24.3
	A	Woods, good condition	30			1.529	45.9
<b>TOTALS</b>						1.777	70.2

$$\text{CN (Weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{70.2}{1.8} = 39.505$$

**USE:**

40

### 2. Total Runoff

		Storm # 1	Storm # 2	Storm # 3	Storm # 4	Storm # 5
Frequency	Yr					
Rainfall, P (24-hour)	In					
$S = \frac{1,000}{\text{CN}} - 10 =$						
Runoff, $Q = \frac{(P-0.2S)^2}{(P+0.8S)}$	In					
Volume = Area * Q	Ft <sup>3</sup>					

## Worksheet 2: Runoff Curve Number and Total Runoff

Project West Pasco	By RTM	Date December 9, 2008
Location Area 1 Post	Checked CK	Date

### 1. Runoff Curve Number

Soil Name	Hydrologic Group	Cover Description	Curve Number			Area X Ac. mi <sup>2</sup> %	Product of CN X Area
			Table 2-2	Figure 2-3	Figure 2-4		
	A	Impervious	98			0.925	90.7
	A	Lawns, good condition	39			0.852	33.2
<b>TOTALS</b>						1.777	123.9

$$\text{CN (Weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{123.9}{1.8} = 69.724$$

**USE:**

70

### 2. Total Runoff

		Storm # 1	Storm # 2	Storm # 3	Storm # 4	Storm # 5
Frequency	Yr	Treatment				
Rainfall, P (24-hour)	In	0.5				
$S = \frac{1,000}{\text{CN}} - 10 =$		N/A				
Runoff, Q = $\frac{(P-0.2S)^2}{(P+0.8S)}$	In	0.5				
Volume = Area * Q	Ft <sup>3</sup>	3,225				

## Worksheet 2: Runoff Curve Number and Total Runoff

Project West Pasco	By RTM	Date December 9, 2008
Location Area 2 Pre	Checked CK	Date

### 1. Runoff Curve Number

Soil Name	Hydrologic Group	Cover Description	Curve Number			Area X Ac. mi <sup>2</sup> %	Product of CN X Area
			Table 2-2	Figure 2-3	Figure 2-4		
	A	Impervious	98			0.122	12.0
	A	Woods, good condition	30			0.689	20.7
<b>TOTALS</b>						0.811	32.7

$$CN \text{ (Weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{32.7}{0.8} = 40.321$$

**USE:**

40

### 2. Total Runoff

		Storm # 1	Storm # 2	Storm # 3	Storm # 4	Storm # 5
Frequency	Yr					
Rainfall, P (24-hour)	In					
$S = \frac{1,000}{CN} - 10 =$						
Runoff, $Q = \frac{(P-0.2S)^2}{(P+0.8S)}$	In					
Volume = Area * Q	Ft <sup>3</sup>					

## Worksheet 2: Runoff Curve Number and Total Runoff

Project West Pasco	By RTM	Date December 9, 2008
Location Area 2 Post	Checked CK	Date

### 1. Runoff Curve Number

Soil Name	Hydrologic Group	Cover Description	Curve Number			Area X Ac. mi <sup>2</sup> %	Product of CN X Area
			Table 2-2	Figure 2-3	Figure 2-4		
	A	Impervious	98			0.442	43.3
	A	Lawns, good condition	39			0.369	14.4
<b>TOTALS</b>						<b>0.811</b>	<b>57.7</b>

$$\text{CN (Weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{57.7}{0.8} = 71.147$$

**USE:** 71

### 2. Total Runoff

		Storm # 1	Storm # 2	Storm # 3	Storm # 4	Storm # 5
Frequency	Yr	Treatment				
Rainfall, P (24-hour)	In	0.5				
$S = \frac{1,000}{\text{CN}} - 10 =$		N/A				
Runoff, Q = $\frac{(P-0.2S)^2}{(P+0.8S)}$	In	0.5				
Volume = Area * Q	Ft <sup>3</sup>	1,472				



## Worksheet 2: Runoff Curve Number and Total Runoff

Project West Pasco	By RTM	Date April 24, 2009
Location Area 3 Pre	Checked CK	Date

### 1. Runoff Curve Number

Soil Name	Hydrologic Group	Cover Description	Curve Number			Area X Ac. mi <sup>2</sup> %	Product of CN X Area
			Table 2-2	Figure 2-3	Figure 2-4		
	A	Impervious	98			0.610	59.8
	A	Woods, good condition	30			5.420	162.6
<b>TOTALS</b>						6.030	222.4

$$\text{CN (Weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{222.4}{6.0} = 36.882$$

**USE:** 37

### 2. Total Runoff

		Storm # 1	Storm # 2	Storm # 3	Storm # 4	Storm # 5
Frequency	Yr					
Rainfall, P (24-hour)	In					
$S = \frac{1,000}{\text{CN}} - 10 =$						
Runoff, Q = $\frac{(P-0.2S)^2}{(P+0.8S)}$	In					
Volume = Area * Q	Ft <sup>3</sup>					

## Worksheet 2: Runoff Curve Number and Total Runoff

Project West Pasco	By RTM	Date April 24, 2009
Location Area 3 Post	Checked CK	Date

### 1. Runoff Curve Number

Soil Name	Hydrologic Group	Cover Description	Curve Number			Area X Ac. mi <sup>2</sup> %	Product of CN X Area
			Table 2-2	Figure 2-3	Figure 2-4		
	A	Impervious	98			2.840	278.3
	A	Lawns, good condition	39			3.190	124.4
<b>TOTALS</b>						6.030	402.7

$$\text{CN (Weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{402.7}{6.0} = 66.783$$

**USE:** 67

### 2. Total Runoff

		Storm # 1	Storm # 2	Storm # 3	Storm # 4	Storm # 5
Frequency	Yr	Treatment				
Rainfall, P (24-hour)	In	0.5				
$S = \frac{1,000}{\text{CN}} - 10 =$		N/A				
Runoff, $Q = \frac{(P-0.2S)^2}{(P+0.8S)}$	In	0.5				
Volume = Area * Q	Ft <sup>3</sup>	10,944				

## Worksheet 2: Runoff Curve Number and Total Runoff

Project West Pasco	By RTM	Date April 24, 2009
Location Area 4 Pre	Checked CK	Date

### 1. Runoff Curve Number

Soil Name	Hydrologic Group	Cover Description	Curve Number			Area X Ac. mi <sup>2</sup> %	Product of CN X Area
			Table 2-2	Figure 2-3	Figure 2-4		
	A	Impervious	98			0.180	17.6
	A	Woods, good condition	30			1.490	44.7
<b>TOTALS</b>						1.670	62.3

$$\text{CN (Weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{62.3}{1.7} = 37.305$$

**USE:** 37

### 2. Total Runoff

		Storm # 1	Storm # 2	Storm # 3	Storm # 4	Storm # 5
Frequency	Yr					
Rainfall, P (24-hour)	In					
$S = \frac{1,000}{\text{CN}} - 10 =$						
Runoff, Q = $\frac{(P-0.2S)^2}{(P+0.8S)}$	In					
Volume = Area * Q	Ft <sup>3</sup>					

## Worksheet 2: Runoff Curve Number and Total Runoff

Project West Pasco	By RTM	Date April 24, 2009
Location Area 4 Post	Checked CK	Date

### 1. Runoff Curve Number

Soil Name	Hydrologic Group	Cover Description	Curve Number			Area X Ac. mi <sup>2</sup> %	Product of CN X Area
			Table 2-2	Figure 2-3	Figure 2-4		
	A	Impervious	98			1.022	100.2
	A	Lawns, good condition	39			0.648	25.3
<b>TOTALS</b>						1.670	125.5

$$CN \text{ (Weighted)} = \frac{\text{Total Product}}{\text{Total Area}} = \frac{125.5}{1.7} = 75.15$$

**USE:**

75

### 2. Total Runoff

		Storm # 1	Storm # 2	Storm # 3	Storm # 4	Storm # 5
Frequency	Yr	Treatment				
Rainfall, P (24-hour)	In	0.5				
$S = \frac{1,000}{CN} - 10 =$		N/A				
Runoff, $Q = \frac{(P-0.2S)^2}{(P+0.8S)}$	In	0.5				
Volume = Area * Q	Ft <sup>3</sup>	3,031				

Attachment D  
Geotechnical Reports

*Engineering Report*

***Geotechnical Investigation for  
the Proposed Pasco County  
Solid Waste Facility Upgrade***

*Prepared for  
Pasco County, Florida*



**CH2MHILL**

May, 2009

# Contents

---

Section	Page
1. Introduction.....	4
2. Project Location and Proposed Construction.....	4
3. Field Exploration and Laboratory Testing.....	7
3.1 Cone Penetration Test Soundings .....	10
3.2 Double Ring Infiltrometer Test .....	10
4. Subsurface Conditions.....	10
5. Conclusions and Recommendations .....	10
5.1 Subgrade Preparation .....	11
5.2 Fill and Backfill .....	11
5.2.1 Granular Fill .....	11
5.2.2 Pipe Trench Backfill.....	12
5.3 Excavation.....	12
5.4 Groundwater Control .....	12
5.5 Foundation Design Recommendation .....	12
5.5.1 Spread Footings and Slabs-on-grade .....	13
5.6 Lateral Earth Pressure.....	13
5.7 Thrust Blocks and Thrust Restraint .....	13
5.8 Pavement Considerations.....	14
5.9 Summary.....	14
6. Limitations.....	15
7. Works Cited.....	16

## Table

1. Summary of Proposed Construction .....	7
---	---

## Figure

1. Project Location, East Pasco Solid Waste Facility .....	5
2. Project Location, West Pasco Solid Waste Facility.....	6
3. Site Plan and Soil Sounding Locations, East Pasco Site .....	8
4. Site Plan and Soil Sounding Locations, West Pasco Site.....	9

*Lou Roy Choy*  
5/28/09

## Appendixes

- A. Soil Sounding Logs
- B. Double Ring Infiltrometer Test Results

# Acronyms and Abbreviations

---

ASTM	American Society for Testing and Materials
bgs	below ground surface
LBR	Limerock bearing ratio
CMU	concrete masonry unit
CPT	cone penetration test
DIT	double ring infiltrometer test
H	horizontal
msl	mean sea level
N	standard penetration resistance
OSHA	Occupational Safety and Health Administration
pcf	pound per cubic foot
psf	pound per square foot
psi	pound per square inch
SPT	standard penetration test
tcf	tons per cubic foot
USCS	Unified Soil Classification System
V	vertical



# 1. Introduction

CH2M HILL conducted a geotechnical investigation to evaluate the subsurface conditions at the site of the proposed Pasco County Solid Waste Facility Upgrade for Pasco County, Florida.

The scope of work for this geotechnical investigation included the following tasks:

- Conduct one 12-foot deep and five 21-foot-deep Cone Penetration Test (CPT) soundings (ASTM D-3441) at East Pasco solid waste facility site and seven 15 to 50-foot-deep CPT soundings at the West Pasco solid waste facility site.
- Conduct one double-ring infiltrometer test (DIT) (ASTM D-3385) at East Pasco solid waste facility site and two DIT tests at the West Pasco solid waste facility site.
- Conduct three sieve analysis tests (ASTM D-422) on representative soil samples to assist the soil classification and evaluation of engineering properties of the soils,
- Perform engineering analyses and develop geotechnical design recommendations based on the results, and
- Prepare a geotechnical report describing the field exploration and laboratory testing, and provide recommendations for the foundation design and construction of the proposed facilities.

# 2. Project Location and Proposed Construction

The East Pasco County solid waste facility site is located in the eastern part of Pasco County, off, Handcraft Road. The West Pasco County solid waste facility is located north of State Road 52, off Hays Road as shown on Figures 1 and 2.

The proposed construction at East Pasco site will consist of a scale house and two scales and a citizen drop-off area (CDO). The proposed construction at West Pasco site will consist of a scale house and two scales and a CDO area. The plan dimension, top of bottom slab elevation, estimated unit load, and type of construction of the proposed facilities is presented in Table 1.

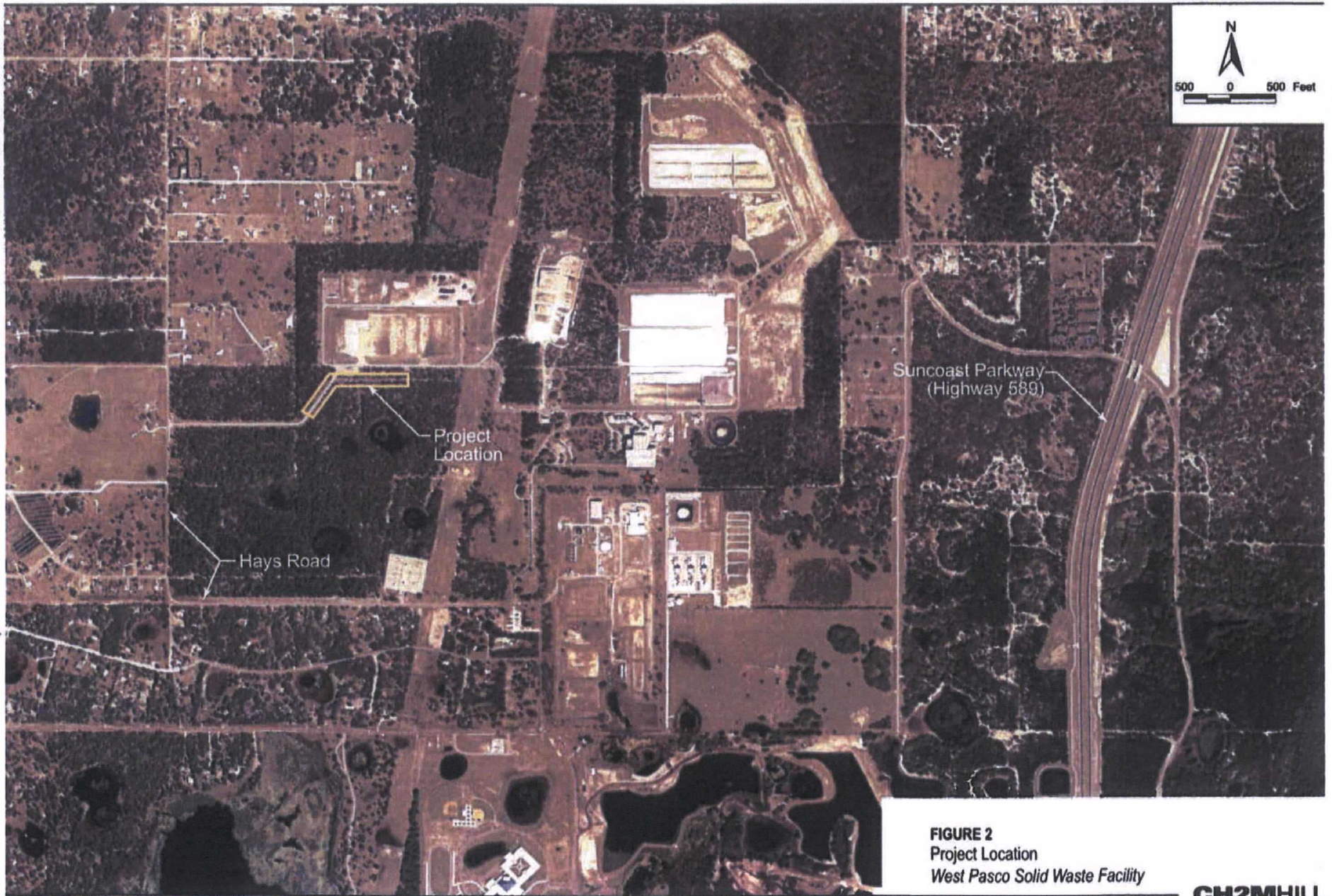
At the East Pasco site, the proposed construction area is generally clear of any trees. The topographic relief at the scale house area is about 3 feet, from EL 198 feet to EL 201 feet. At the CDO, the topographic relief is about 5 feet from EL 203 feet to EL 208 feet.

At the West Pasco site, the areas north and south of the proposed scale house and CDO area are heavily wooded. The topographic relief at the scalehouse area is about 2 feet, from EL 47 feet to EL 49 feet.



**FIGURE 1**  
Project Location  
*East Pasco Solid Waste Facility*

**CH2MHILL**



**FIGURE 2**  
Project Location  
West Pasco Solid Waste Facility

Table 1, Summary of Proposed Construction

Structural Description	Plan Dimension (feet)	Top of Bottom Slab Elevation (feet, msl)	Estimated Load	Type of Construction
<b>East Pasco Site</b>				
1. Scale House and Scales	16' to 40'	On grade	WLF=4000 PLF	Concrete Masonry
2. Citizen Drop-off Area	320x370	On grade	Unit load=300 psf	Asphalt and concrete paved area
<b>West Pasco Site</b>				
3. Scale House and Scales	16' to 40'	On grade	WLF=4000 PLF	Concrete Masonry
4. Citizen Drop-off Area	140x800	On grade	Unit load=300 psf	Asphalt and concrete paved area

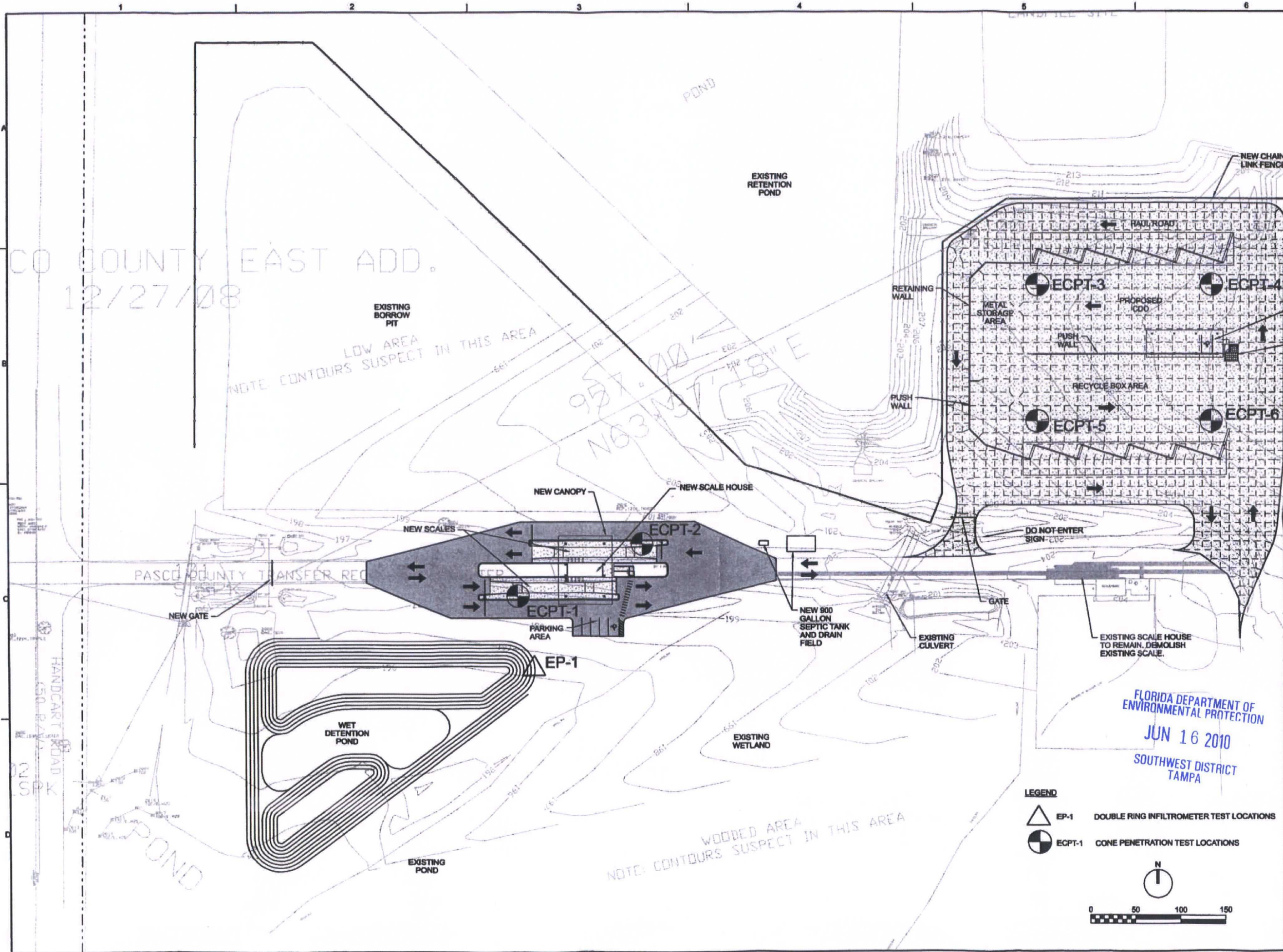
Notes:

- msl = Mean sea level
- PLF = Pounds per linear foot
- PSF = Pounds per square foot
- Unit load = Uniformly distributed load
- WLF = Wall footing load

### 3. Field Exploration and Laboratory Testing

The field exploration consisted of thirteen CPT soundings and three DIP tests. The CPT soundings were conducted by InSitu Group of Orlando, Florida, on December 3 and 4, 2008 and the DIP tests were conducted by Universal Engineering Science of Gainesville, Florida, on December 3 and 4, 2008. The sounding and DIP test locations were located by measuring with a tape from adjacent fence lines or structures. A CH2M HILL geotechnical engineer was on site to observe the soundings DIP tests. The site plan and sounding and DIP tests locations are shown on Figures 3 and 4. The sounding logs are presented in Appendix A and DIP test results are presented in Appendix B.

The overall site plans for the proposed construction are also presented in Figures 3 and 4.

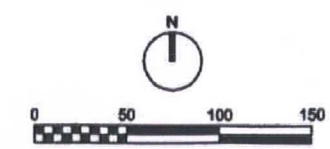


CO COUNTY EAST ADD.  
12/27/08

PASCO COUNTY TRANSFER REC

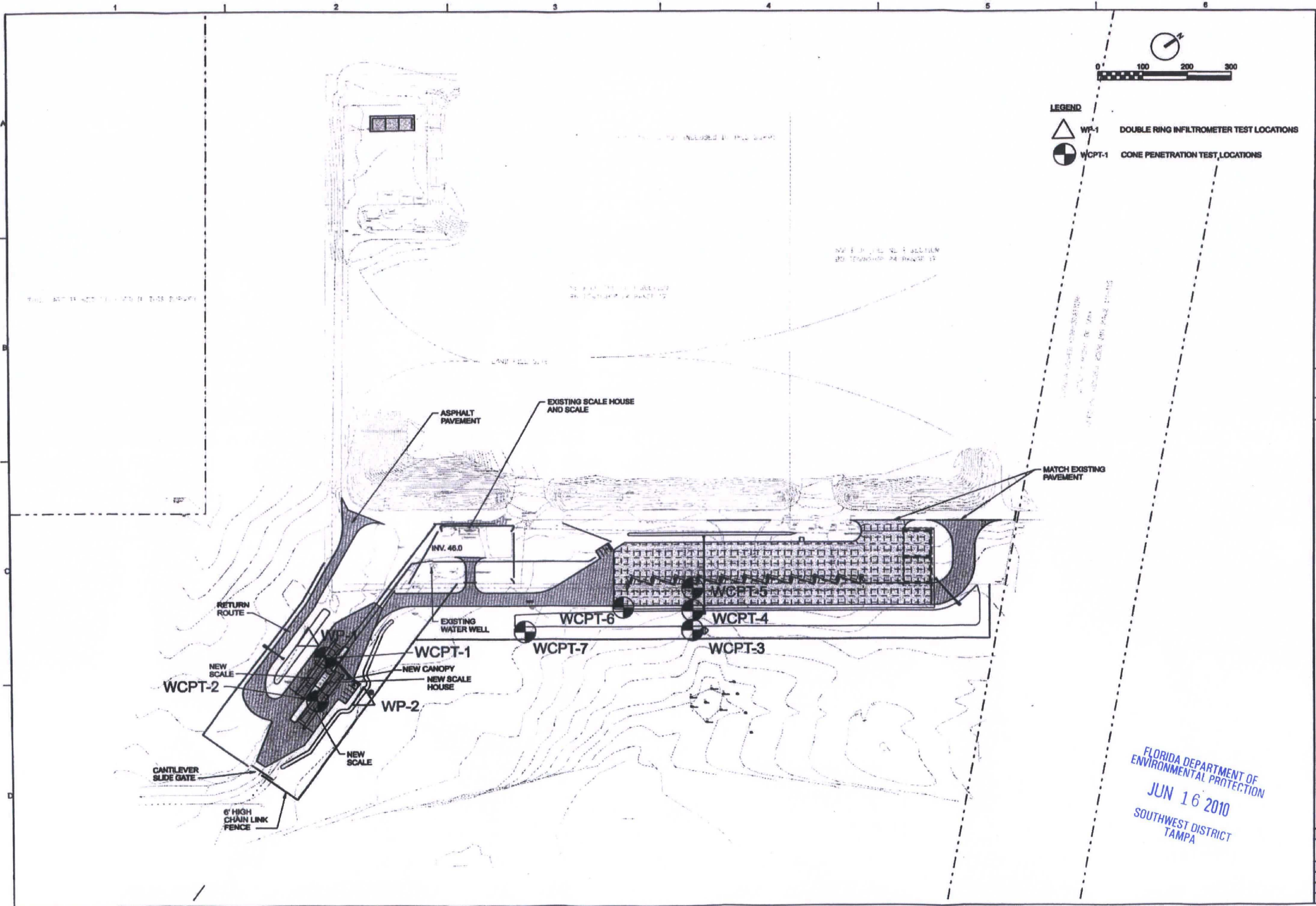
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
JUN 16 2010  
SOUTHWEST DISTRICT TAMPA

- LEGEND**
- △ EP-1 DOUBLE RING INFILTRMETER TEST LOCATIONS
  - ⊗ ECPT-1 CONE PENETRATION TEST LOCATIONS



<p>3011 SW WILLISTON RD GAINESVILLE, FLORIDA 32608 ES0000072 AAC001892</p>	
<p>SOLID WASTE SYSTEM UPGRADE DESIGN PASCO COUNTY PASCO COUNTY, FLORIDA</p>	<p>NO. DATE DSGN</p>
<p>REVISION CHK</p>	<p>BY APVD</p>
<p>DR</p>	<p>APVD</p>
<p>FIGURE 3 SITE PLAN AND SOIL SOUNDING LOCATIONS EAST PASCO SITE</p>	
<p><b>CH2MHILL</b></p>	
<p>VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1'</p>	
<p>DATE PROJ DWG SHEET</p>	<p>MAY 2009 378217</p>
<p>ISSUED FOR 80% CLIENT REVIEW</p>	

REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF CH2M HILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2M HILL. © CH2M HILL 2009. ALL RIGHTS RESERVED.



NO.	DATE	REVISION	CHK	BY

3011 SW WILLISTON RD  
 GAINESVILLE, FLORIDA 32608  
 EB0000072 AAC001962

SOLID WASTE SYSTEM  
 UPGRADE DESIGN  
 PASCO COUNTY  
 PASCO COUNTY, FLORIDA

**CH2MHILL**

FIGURE 4  
 SITE PLAN AND SOIL SOUNDING LOCATIONS  
 WEST PASCO SITE

FLORIDA DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION  
 JUN 16 2010  
 SOUTHWEST DISTRICT  
 TAMPA

DATE	MAY 2009
PROJ	378217
DWG	
SHEET	

ISSUED FOR 90% CLIENT REVIEW

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING @ 8 1/2" X 11"

NOM SERVER: GNV FILENAME: \$west pasco soil boring\$ DATE: 5/21/2009 PLOT TIME: 1:58:41 PM

REUSE OF DOCUMENTS: THIS DOCUMENT AND THE DESIGN AND DRAWINGS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS THE PROPERTY OF CH2MHILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2MHILL. © CH2MHILL 2009. ALL RIGHTS RESERVED.

### **3.1 Cone Penetration Tests**

Phase II exploration consisting of nine CPT soundings was made at the site in accordance with ASTM D-3441 using an electrical cone. This cone has a 10-cm<sup>2</sup> cross section area with a 60-degree apex angle and a 150-cm<sup>2</sup> friction sleeve area. The compressive force at the cone tip, termed the tip resistance ( $q_c$ ) is measured by a compression load cell within the cone housing. The friction acting on the barrel shaped surface of the cone, termed the sleeve friction ( $f_c$ ) is measured by a separate load cell within the same housing.

During testing, the penetrometer was hydraulically advanced at a rate of 2 cm/sec. The cone tip resistance, sleeve friction, and pore water pressure were recorded at 5 centimeter intervals as the cone was advanced. The cone soundings were pushed to 25 to 50 feet below the ground surface. Descriptive logs of the sounding test results are included in Appendix A.

### **3.2 Double Ring Infiltrometer Tests**

All disturbed samples were visually classified in the field in accordance with the Unified Soil Classification System (USCS) (ASTM D-2487). To aid the soil classification and evaluation of engineering properties of the soils, twelve sieve analysis tests (ASTM D-422) were conducted by Universal Engineering and Science to assist the soil classification and evaluation of engineering properties of the soils. The laboratory test results are presented in Appendix B.

## **4. Subsurface Conditions**

At the East Pasco site, the soil soundings generally encountered medium dense to dense sand and silty sand to the maximum depth of the soundings of 20 feet. The groundwater table measured from hand-auger boreholes was at 1 to 2 below the ground surface in area around the proposed scale house and 2 to 3 feet below the ground surface in the proposed citizen disposal area.

Except for WCPT-3 and WCPT-4, the soundings made at the West Pasco site generally encountered medium dense to dense sand and silty sand to the maximum depth of the soundings of 30 feet. Soundings WCPT-3 and WCPT-4 encountered approximately 25 feet of loose to medium dense sand, silty sand, and sandy silt which, in turn, overlies very loose to very soft sand, silty sand, and sandy clay to about 50 feet below the ground surface. WCPT-3 and WCPT-4 appear to be in the influence zone of the karst feature. The CDO was then located outside the influence zone. The groundwater table measured from hand-auger boreholes was at depth greater than 8 feet below the ground surface at the time the sounding were made.

## **5. Conclusions and Recommendations**

The findings of the subsurface evaluation were used to make conclusions and recommendations in the following areas:

- Subgrade Preparation
- Fill and Backfill
- Excavation
- Groundwater Control
- Foundation Design
- Lateral Earth Pressure
- Thrust Block and Thrust Restraint
- Pavement Design Recommendations

## **5.1 Subgrade Preparation**

Before the placement of fill, concrete, and pavement, the subgrade should be prepared as follows:

- All surface vegetations and top soil within 5 feet from the perimeter of the building should be excavated.
- The subgrade shall be proof rolled with a minimum of 15 overlapping passes using a 10-ton or heavier vibratory roller. Any soft areas that cannot be compacted shall be over-excavated and replaced with granular fill. Granular fill should consist of sand, silty sand, or clayey sand classified as SP, SM, or SC in accordance with USCS (ASTM D-2487). Place granular fill in 8-inch lifts and compact each lift to 95 percent of the maximum dry density, as determined by ASTM D-1557 to the design footing or base slab grades
- The upper 12 inches of the subgrade should be compacted to at least 95 percent of the maximum dry density as determined by ASTM D-1557.

## **5.2 Fill and Backfill**

### **5.2.1 Granular Fill**

Granular fill is recommended for the construction of the embankment or for fill to be placed beneath slabs, footings, and pavements. The granular fill should be placed in 8-inch maximum loose lifts, with each lift compacted to at least 95 percent of the maximum dry density, as determined by ASTM D-1557. At the time of compaction, the fill material should be at optimum moisture content,  $\pm 2$  percent.

Granular fill should be used for fill adjacent to walls. The granular fill should be compacted with plate vibratory compactors or hand-operated power tampers. The backfill material should be placed in 8-inch maximum loose lifts with each lift compacted to 90 percent of the maximum dry density, as determined by ASTM D-1557. To prevent excessive lateral pressure on external walls, large compaction equipment should not be allowed within a zone formed by a 45-degree slope from the base of the wall footing.



## **5.2.2 Pipe Trench Backfill**

Pipe trench backfill beneath slabs, footings, pavements, and facilities should consist of the granular fill specified previously. This granular fill should be placed in horizontal lifts not to exceed 8 inches in uncompacted thickness, and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D-1557. In other areas, excavated material free of roots, debris, clay, organic material, rock larger than 3 inches, or other deleterious objects are suitable for use as trench backfill above the pipe crown. In these areas, the excavated material should be compacted to at least 90 percent of the maximum dry density, as determined by ASTM D-1557.

Backfill material for the pipe zone should consist of granular fill, as previously specified. The granular fill should be placed simultaneously on both sides of the pipe in 6-inch lifts and should be tamped to 95 percent of the maximum dry density, as determined by ASTM D-1557.

The pipe base material should consist of granular fill, as previously specified, and should be compacted to at least 95 percent of the maximum dry density, as determined by ASTM D-1557.

## **5.3 Excavation**

The soil profiles indicate that excavation can generally be done with conventional earth-moving equipment, such as backhoes or front-end loaders. An unbraced temporary excavation with side slope inclined at 1.5 H to 1 V or flatter is expected to remain stable if it is not subjected to surcharge load or vibration. Excavations deeper than 5 feet should be sloped or shored in accordance with Operational Safety and Health Administration (OSHA) requirements. Surface water runoff should be prevented from entering the excavation by berms, swales, or other methods. All grass, topsoil, and organic material should be stripped before excavation begins. Excavation should be conducted in accordance with all federal, state, and local ordinances protecting workers.

## **5.4 Groundwater Control**

The groundwater table at the East Pasco site was at approximately 1 to 3 feet below the ground surface at the time when the soundings were made. Based on the subsurface soil profile encountered in the borings, it is CH2M HILL's opinion that control of the groundwater table for the installation piping may require well-points supplemented with sump pumps within the excavation.

At the West Pasco site, the groundwater table was at depth greater than 8 feet below the ground surface. Except for control of stormwater, CH2M HILL does not anticipate any dewatering difficulty. Soil berms should be constructed around excavation to prevent stormwater from entering the excavation pits.

## **5.5 Foundation Design Recommendations**

### **5.5.1 Spread Footings, Slabs-on-grade, and Mat Foundation**

Spread footings, slabs-on-grade, and mat foundation are recommended as support for the proposed facilities, provided that the foundation soils are prepared in accordance with the

previously recommended procedures. Spread footings should be at least 2 feet wide and embedded at least 1 foot below the finish grade. For spread footing design, a net allowable bearing pressure of 2,000 pounds per square foot (psf) is recommended for the proposed facilities.

The slabs-on-grade and mat foundation should be designed using a modulus of subgrade reaction for a 1-foot square plate of 120 tons per cubic foot (tcf). This modulus of subgrade reaction should be adjusted to account for the difference in size between the plate and the actual foundation. The following equation provides the necessary adjustments:

$$K_s = K_1 \left( \frac{B+1}{2B} \right)^2$$

where:

$K_s$  = Adjusted modulus of subgrade reaction, (tcf)

$K_1$  = Modulus of subgrade reaction for a 1-foot square plate, (tcf)

$B$  = Width of slab or footing, (feet)

The total and differential settlements of the proposed facilities supported by the foundation recommended above were estimated to be less than 1 inch and 3/4 inch, respectively. CH2M HILL believes that the estimated settlements are within tolerable limits for structures of this type.

## 5.6 Lateral Earth Pressure

Granular fill, as recommended in the Section 5.2, Fill and Backfill, should be used to backfill behind walls. For walls backfilled with granular fill, the following equivalent earth pressures are recommended for calculating at-rest and active and passive earth pressures above the groundwater table:

- Equivalent at-rest earth pressure, 58 pcf
- Equivalent active earth pressure, 39 pcf
- Equivalent passive earth pressure, 345 pcf

## 5.7 Thrust Blocks and Thrust Restraint

Assuming soil is placed in accordance with the aforementioned recommendations, CH2M HILL recommends the following soil engineering properties for restrained pipe joint design:

- Friction angle ( $\phi$ ) = 30°

- Cohesion (c) = 0 psf
- Unit weight ( $\gamma$ ) = 115 pcf
- Soil/ductile iron pipe contact friction angle ( $\delta$ ) = 30°

## 5.8 Pavement Design Recommendations

New access roads and parking areas are proposed as part of the facilities improvements. The subgrade to be paved should be prepared as outlined in the Section 5.1, Subgrade Preparation. For the pavement design, a Limerock Bearing Ratio (LBR) of 15 for the compacted subgrade is recommended.

The road base course should be constructed of limerock meeting Section 911 requirements of the *Florida Department of Transportation Standard Specifications for Road and Bridge Construction*. The asphalt concrete should meet the requirements of Type SP-12.5 asphalt concrete, as stated in Section 331 of those specifications.

## 5.9 Summary

The findings and recommendations of this investigation are summarized below:

- The subgrade for footings, slabs, and pavement should be proof rolled with 15 overlapping passes using a 10-ton or heavier vibratory roller.
- The subgrade for the transfer station building should be over-excavated to the bottom elevations of the existing borrow pit; the bottom be proof rolled, and the pit be backfilled with compacted granular fill.
- Side slopes for excavations shallower than 5 feet should be no steeper than 1.5 H to 1 V. Excavations deeper than 5 feet should be sloped in accordance with OSHA requirements.
- Before fill, backfill, or concrete is placed, the upper 12 inches of the subgrade should be compacted to at least 95 percent of the maximum dry density, as determined by ASTM D-1557.
- Granular fill should be used for embankment construction and be placed beneath structures, piping, and roads in maximum 8-inch lifts and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D-1557.
- To support the proposed facility, spread footings are recommended with a maximum allowable bearing net pressure of 2,000 psf. The footings should be at least 2 feet wide. A modulus of subgrade reaction of 120 tcf should be used for the design of slabs-on-grade or mat foundation.
- A LBR of 15 should be used in pavement design for the compacted subgrade materials.

## 6. Limitations

---

This report has been prepared for the exclusive use of Pasco County, for specific application to the proposed Solid Waste Facility Upgrade. This report is prepared in accordance with generally accepted geotechnical engineering practice. No other warranty, express or implied, is made.

The analyses and recommendations in this report are based on the data obtained from the soil soundings. The soundings indicate soil conditions only at specific locations and times, and only to the depths penetrated. They do not necessarily reflect strata variations that may exist between the boring locations. If variations in subsurface conditions from those described are noted during construction, recommendations in this report may need to be re-evaluated.

If any changes in the nature, design, or location of the facilities are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and the conclusions of this report modified or verified in writing. CH2M HILL is not responsible for any claims, damages, or liability associated with interpretation of subsurface data or reuse of the subsurface data or engineering analyses without the express written authorization of CH2M HILL.

## 7. Works Cited

---

American Society for Testing and Materials. *Test Method D-1557 Standard Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb (4.54-kg) Rammer and 18-in (457-mm) Drop*. 1990.

American Society for Testing and Materials. *Test Method D-1586 Method for Penetration Test and Split-Barrel Sampling of Soils*. 1984.

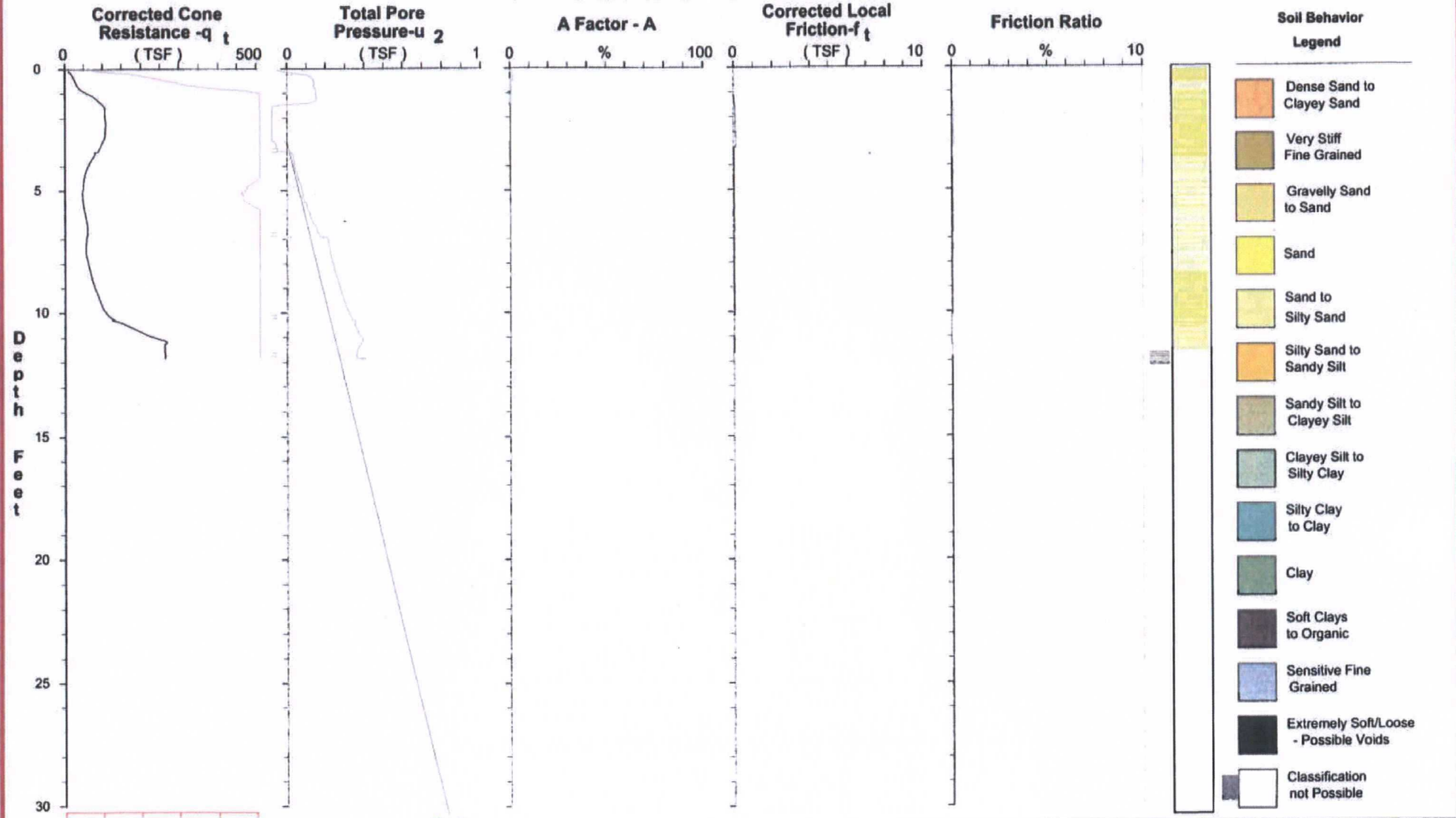
American Society for Testing and Materials. *Test Method D-422 Particle Size Analyses of Soils*

American Society for Testing and Materials. *Test Method D-2487 Standard Test Method for Classification of Soils for Engineering Purposes*. 1990.

American Society for Testing and Materials. *Test Method D-3441 Deep, Quasi-Static, Cone and Friction-Cone Penetration Tests of Soil*

**Appendix A**  
**Soil Sounding Logs**

### PIEZOCONE SOUNDING ECPT#1



Depth Feet

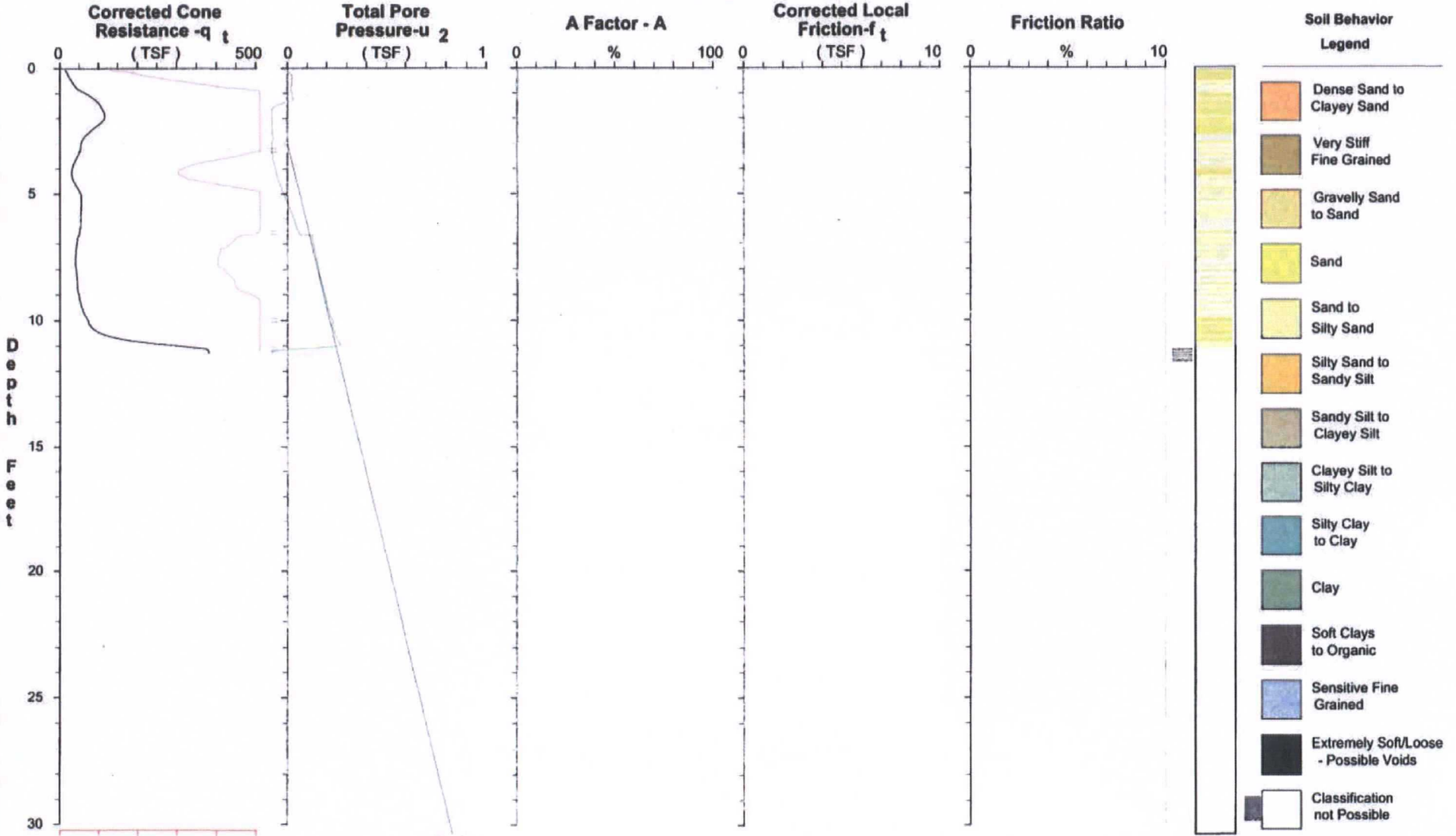
Hydro

— Coarse Scale  
 - - - Fine Scale  
 'x' Push Interrupted To Add Rod

**insitu group**

CH2M Hill, Inc.  
 East Pasco Co. Landfill  
 Sounding: ECPT#1  
 Test-Date 12-03-2008 08:54:09

### PIEZOCONE SOUNDING ECPT#1A



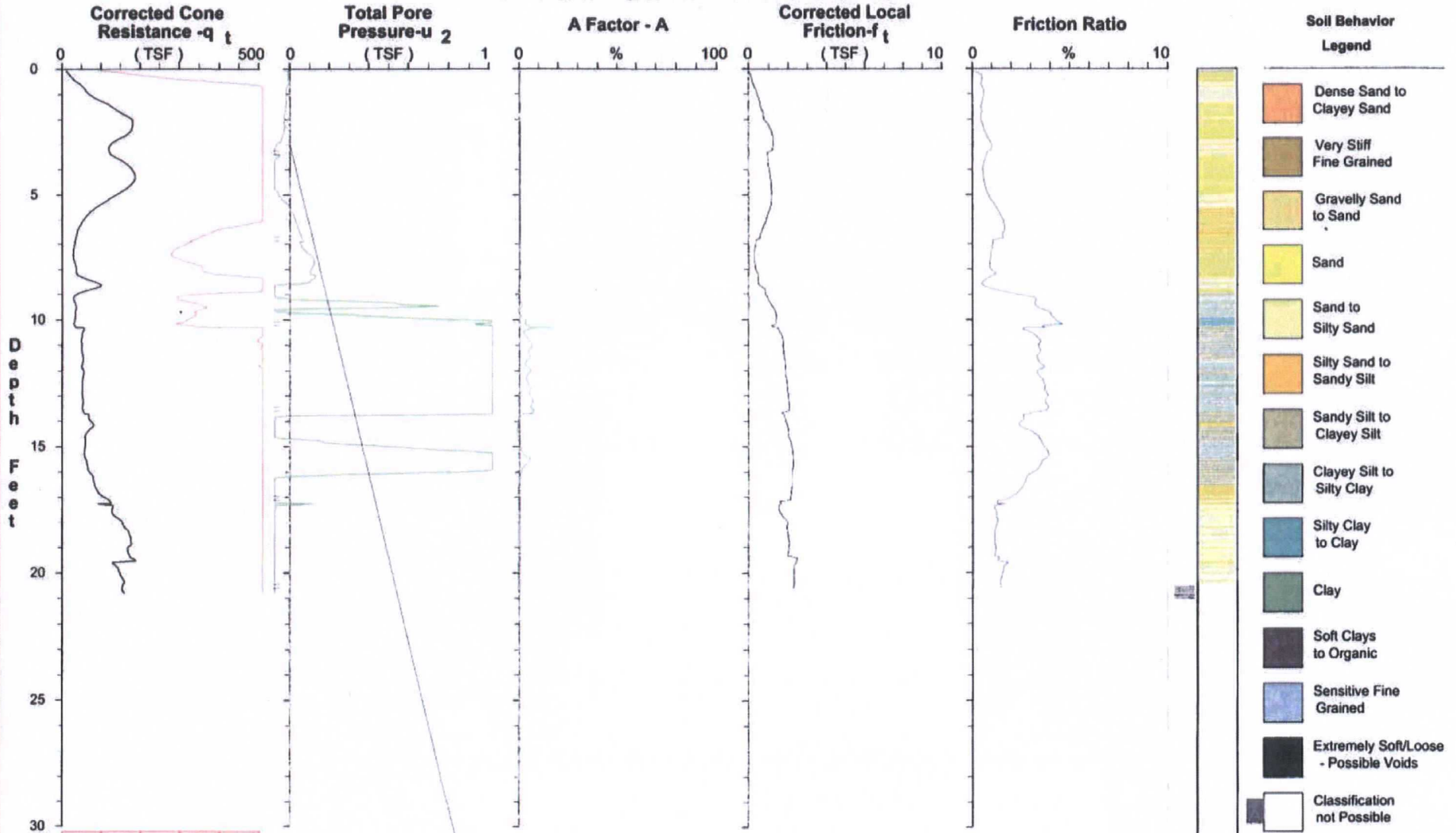
— Coarse Scale  
 - - - Fine Scale  
 'm' Push Interrupted To Add Rod

**insitu group**

CH2M Hill, Inc.  
 East Pasco Co. Landfill  
 Sounding: ECPT#1A  
 Test-Date 12-03-2008 09:15:56



### PIEZOCONE SOUNDING ECPT#2

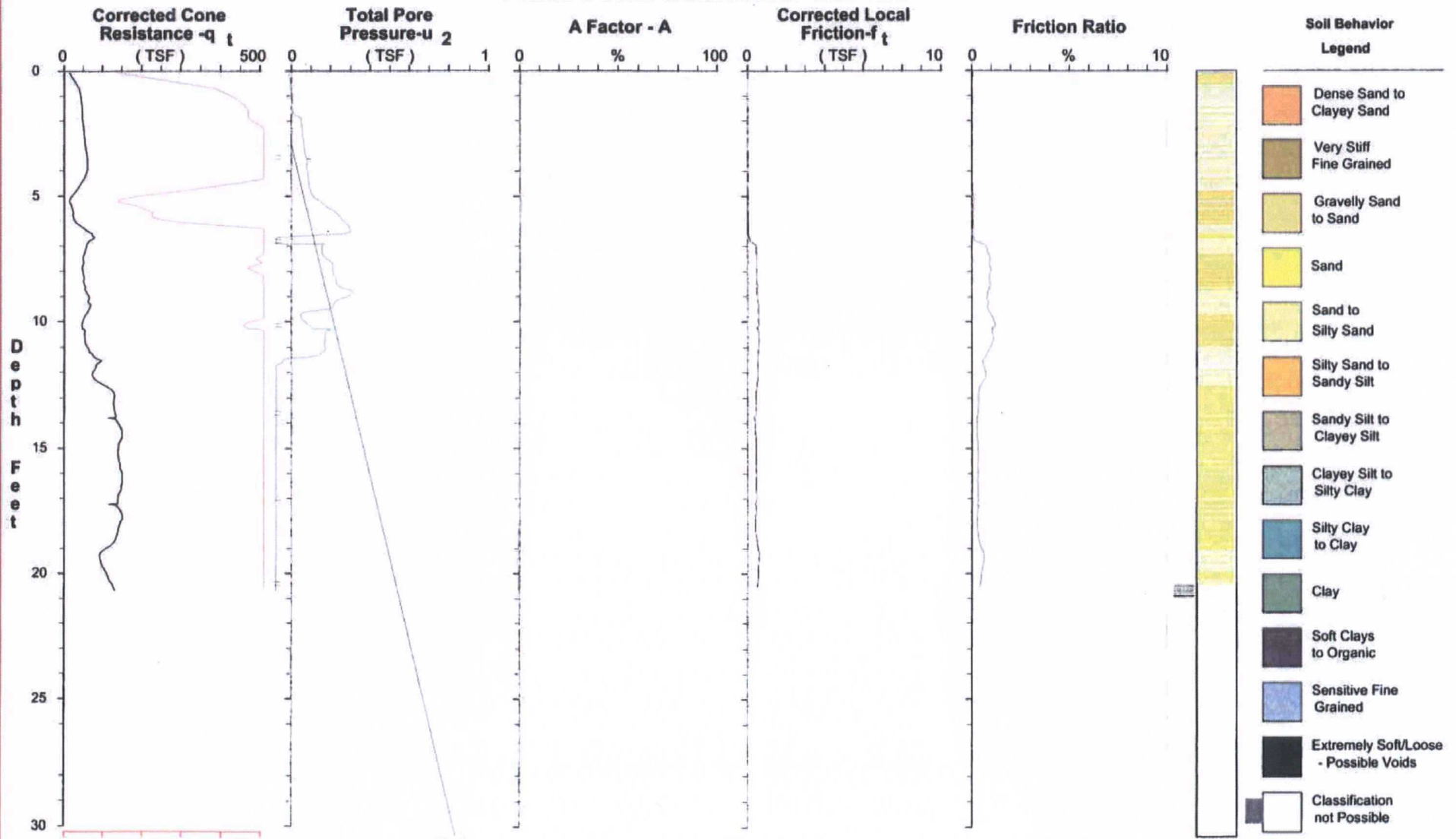


— Coarse Scale  
 — Fine Scale  
 'w' Push Interrupted To Add Rod

**insitu group**  
 CH2M Hill, Inc.  
 East Pasco Co. Landfill  
 Sounding: ECPT#2  
 Test-Date 12-03-2008 08:32:46

REV: 04 - 35.07 - 0

### PIEZOCONE SOUNDING ECPT#3



Depth Feet

— Coarse Scale  
— Fine Scale  
\* Push Interrupted To Add Rod

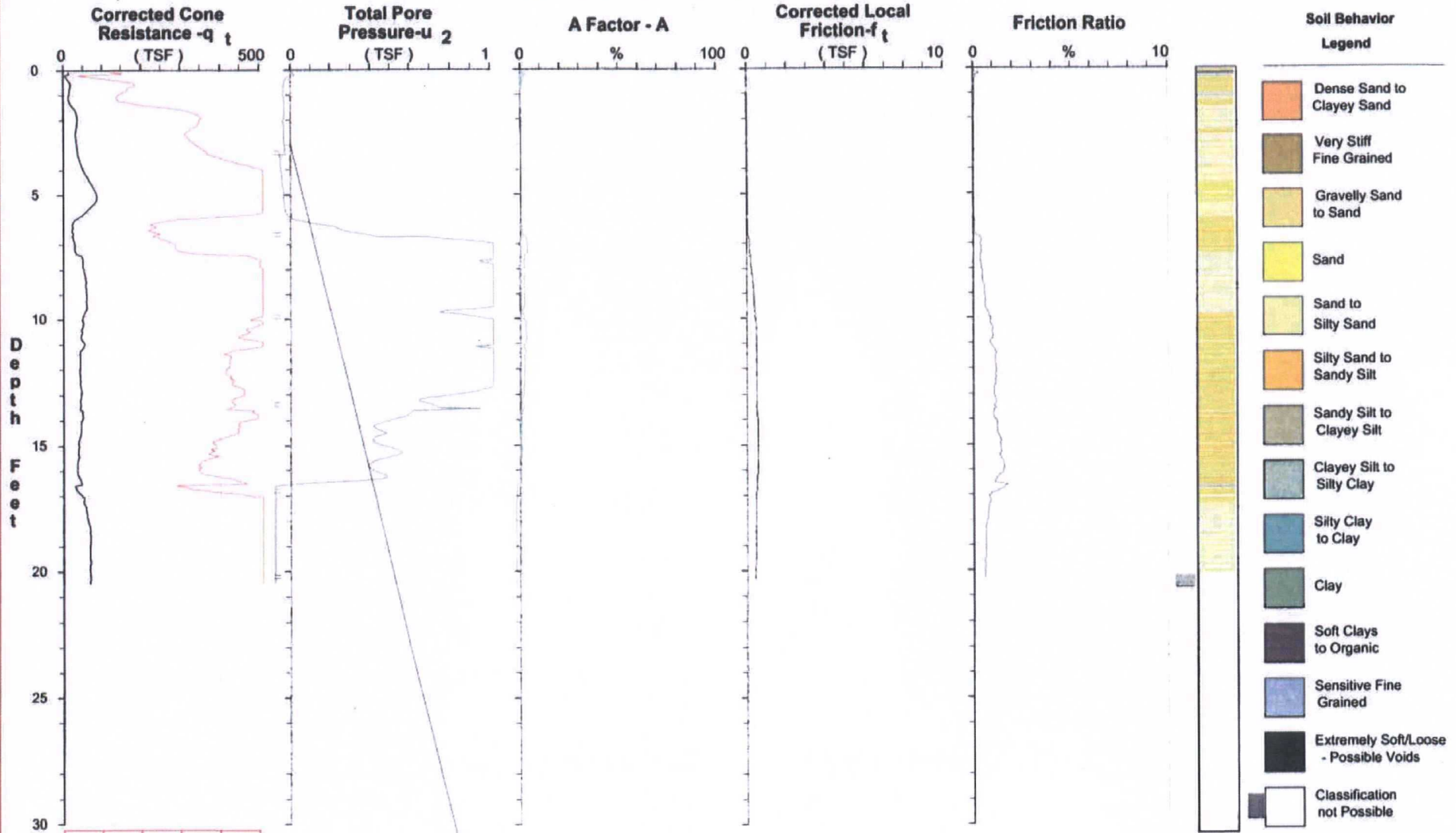
Hydro

**insitu group**

CH2M Hill, Inc.  
East Pasco Co. Landfill  
Sounding: ECPT#3  
Test-Date 12-03-2008 09:52:10

REV: 04 - 35.07 - 0

### PIEZOCONE SOUNDING ECPT#4



Depth Feet

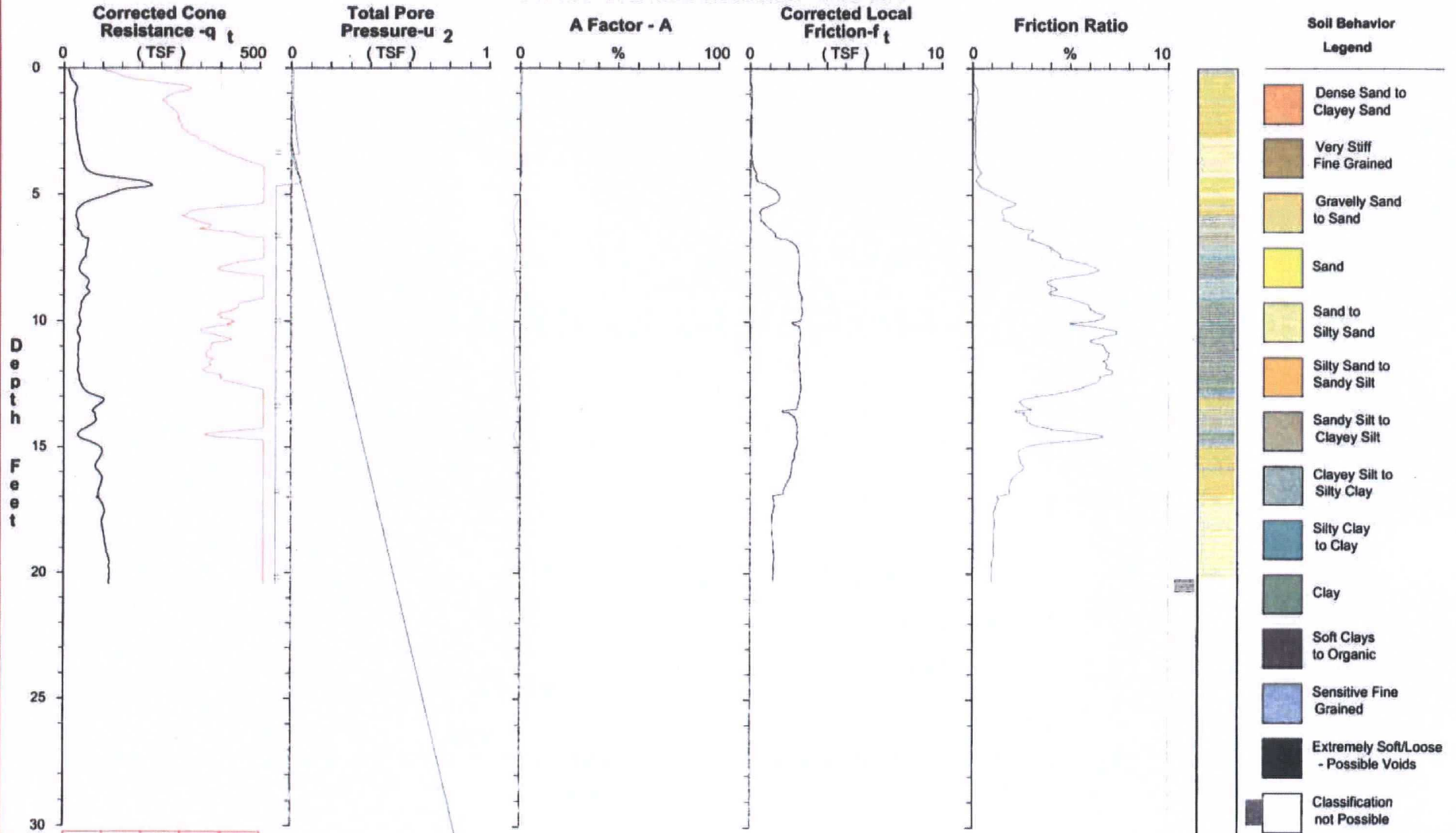
— Coarse Scale  
— Fine Scale  
'=' Push Interrupted To Add Rod

Hydro

**insitu group**

CH2M Hill, Inc.  
East Pasco Co. Landfill  
Sounding: ECPT#4  
Test-Date 12-03-2008 09:34:26

### PIEZOCONE SOUNDING ECPT#5

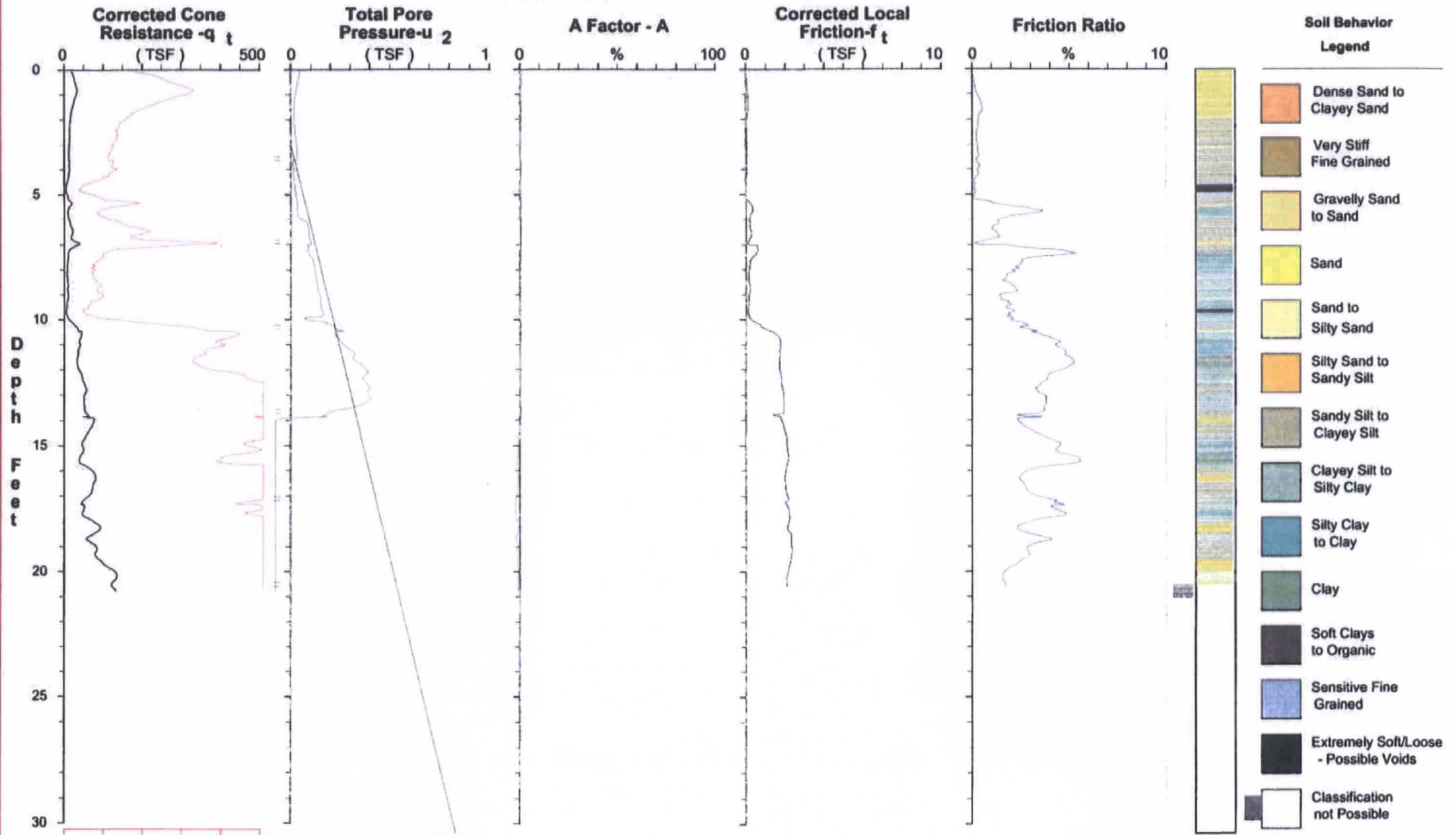


— Coarse Scale  
 — Fine Scale  
 'x' Push Interrupted To Add Rod

**insitu group**  
 CH2M Hill, Inc.  
 East Pasco Co. Landfill  
 Sounding: ECPT#5  
 Test-Date 12-03-2008 10:11:48

REV: 04 - 35.07 - 0

### PIEZOCONE SOUNDING ECPT#6

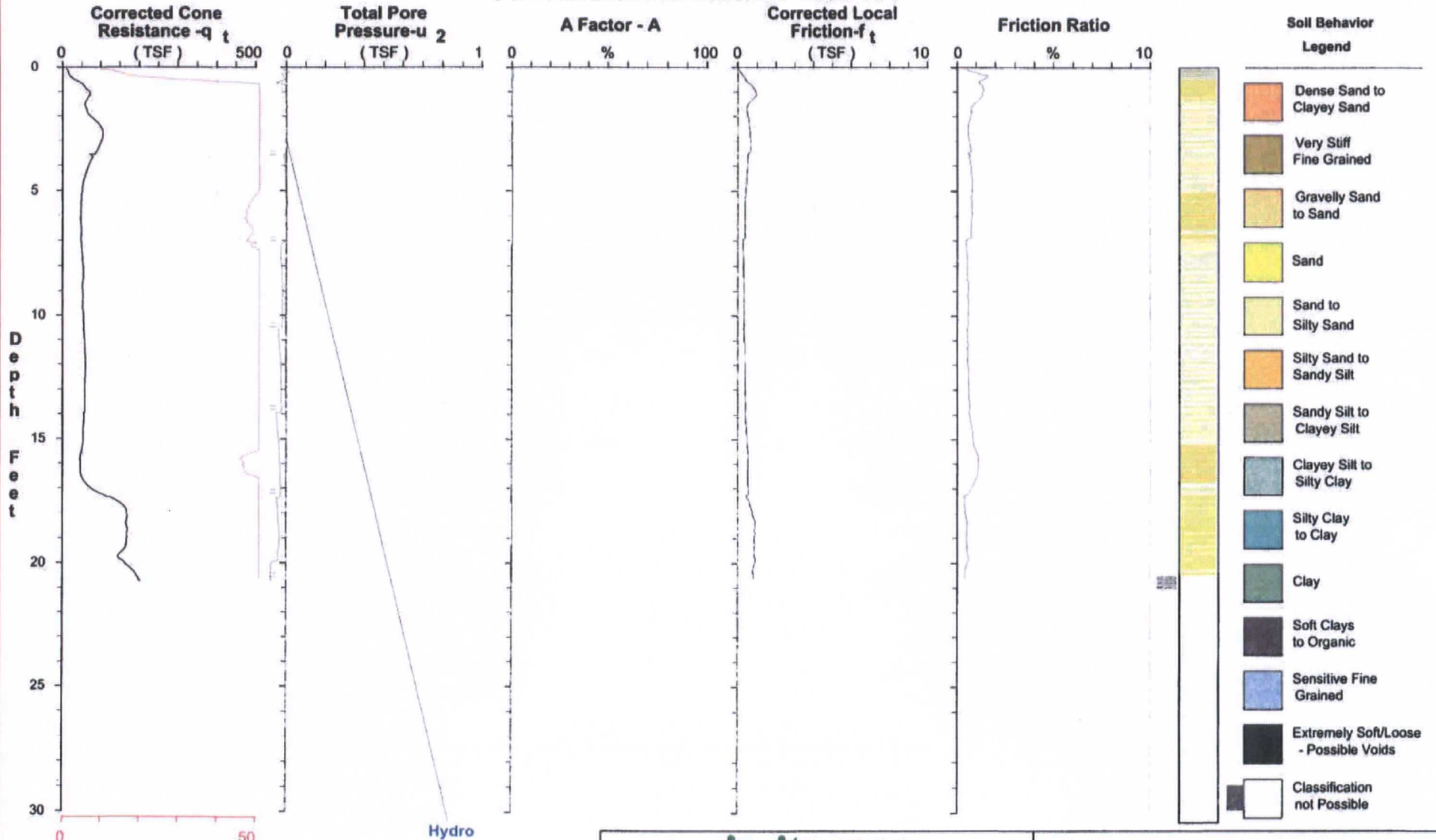


**insitu group**

CH2M Hill, Inc.  
East Pasco Co. Landfill  
Sounding: ECPT#6  
Test-Date 12-03-2008 10:28:19

REV: 04 - 35.07 - 0

# PIEZOCONE SOUNDING WCPT#1

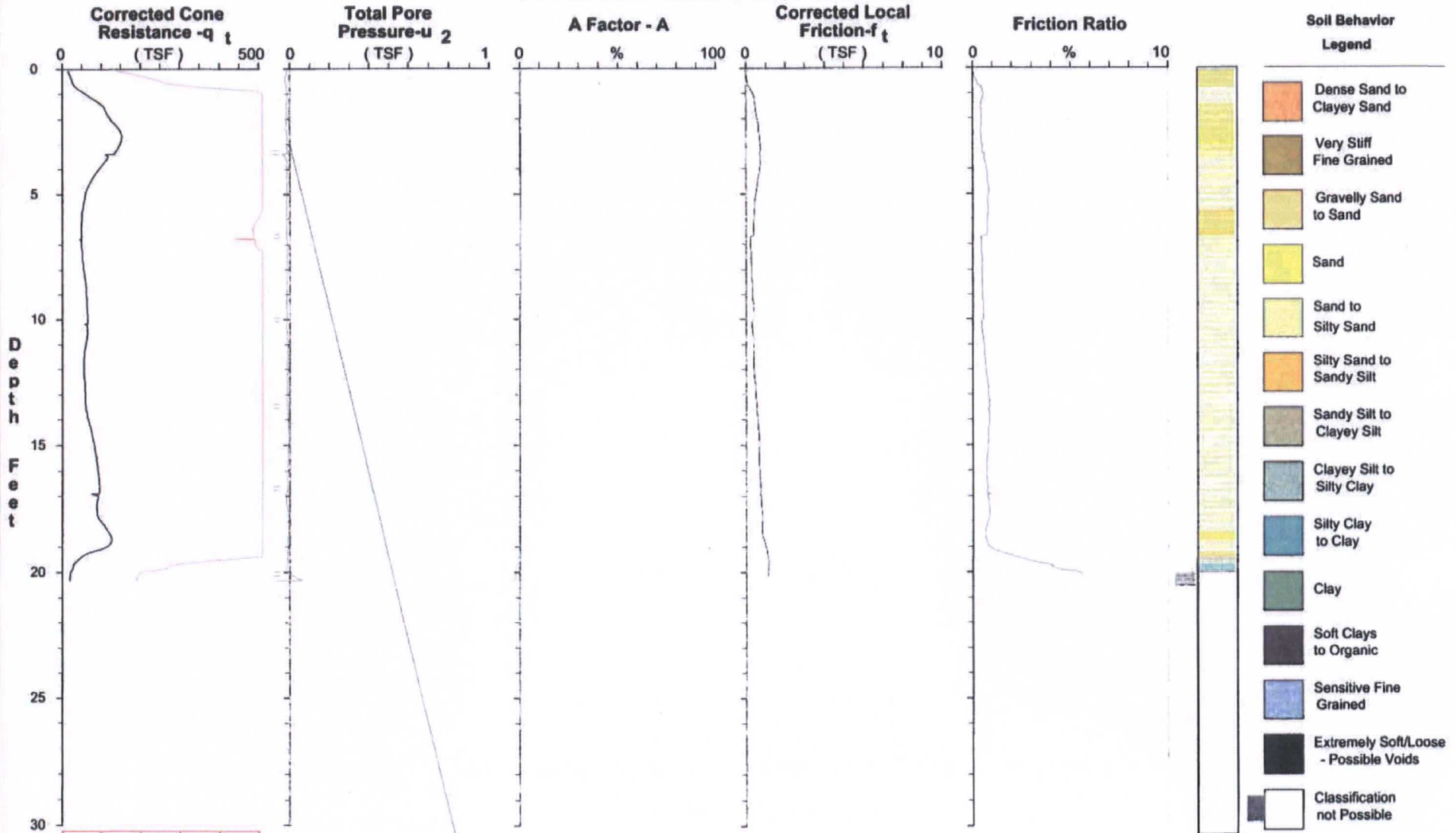


— Coarse Scale  
— Fine Scale  
"—" Push Interrupted To Add Rod

**insitu group**  
CH2M Hill, Inc.  
West Pasco Co. Landfill  
Sounding: WCPT#1  
Test-Date 12-03-2008 12:14:26

REV: 04 - 35.07 - 0

### PIEZOCONE SOUNDING WCPT#2



Depth Feet

0 50

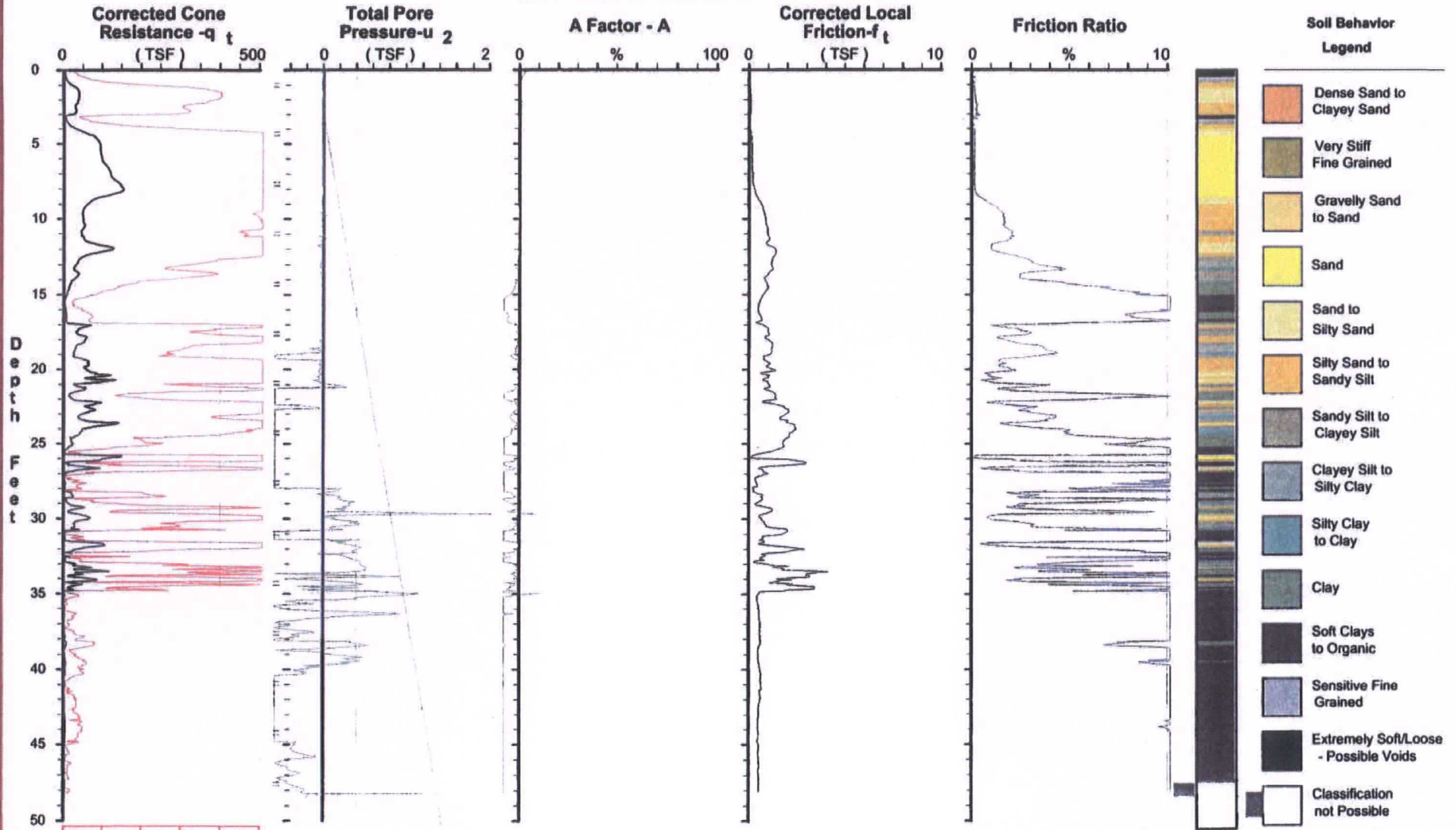
— Coarse Scale  
— Fine Scale  
"=" Push Interrupted To Add Rod

Hydro

**insitu group**

CH2M Hill, Inc.  
West Pasco Co. Landfill  
Sounding: WCPT#2  
Test-Date 12-03-2008 12:42:48

### PIEZOCONE SOUNDING WCPT#3



— Coarse Scale  
 - - - Fine Scale  
 ' ' Push Interrupted To Add Rod

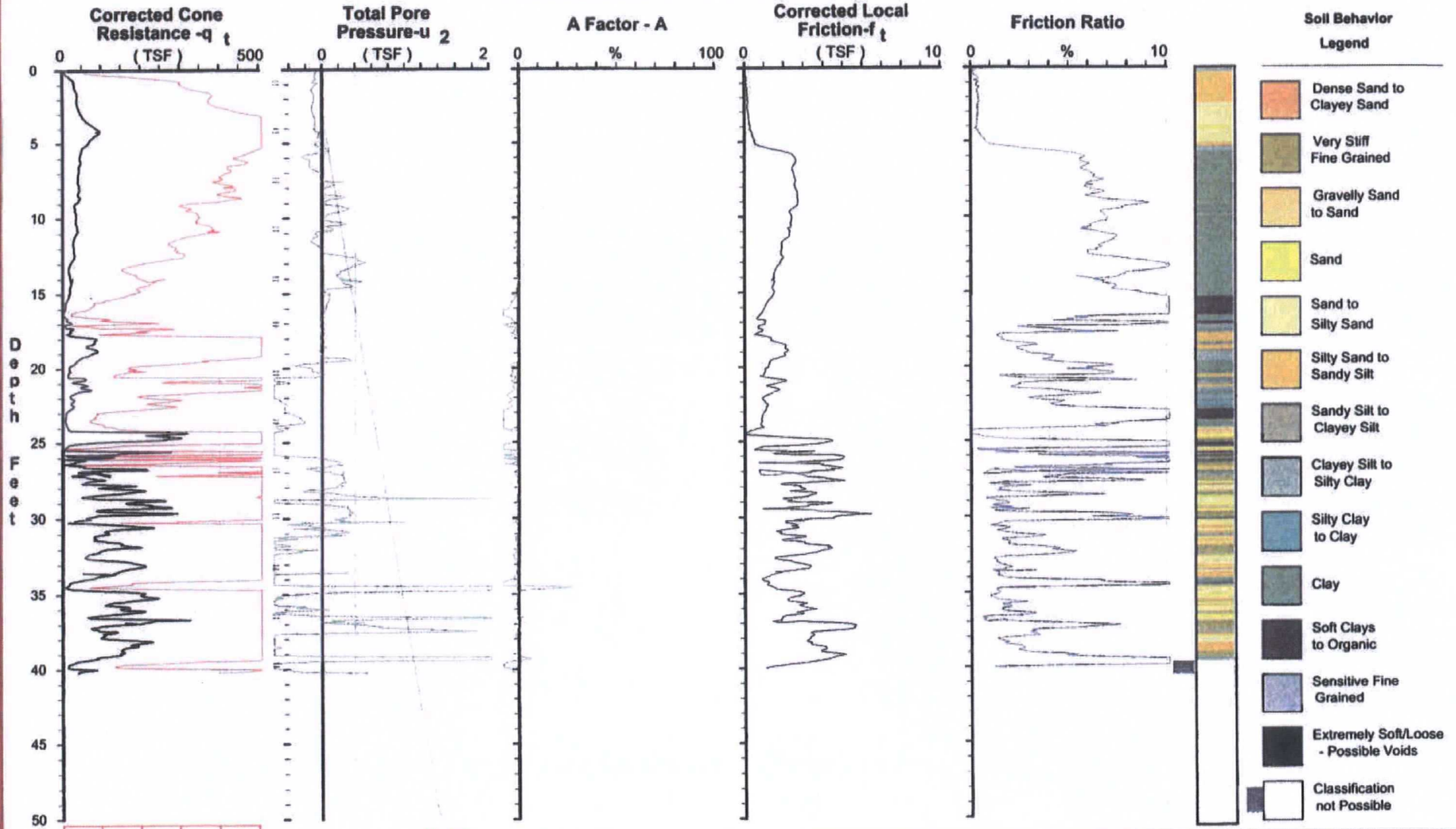
**insitu group**

CH2M Hill, Inc.  
 West Pasco  
 Sounding: WCPT#3  
 Test-Date 03-25-2009 10:07:11



REV: 04 - 37.02 - 0

### PIEZOCONE SOUNDING WCPT#4



Depth Feet

0 50

Coarse Scale  
Fine Scale

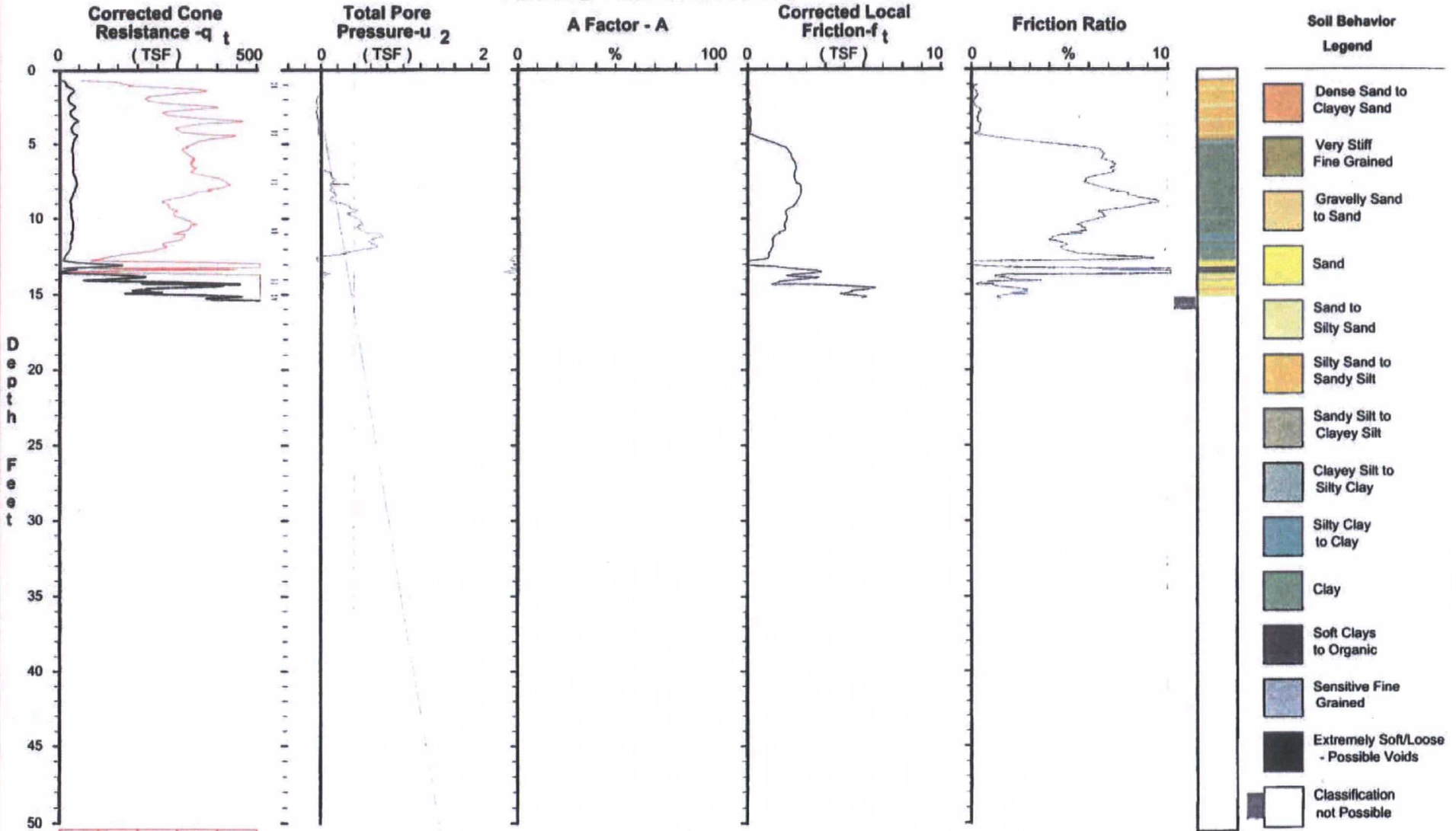
'=' Push Interrupted To Add Rod

Hydro

**insitu group**

CH2M Hill, Inc.  
West Pasco  
Sounding: WCPT#4  
Test-Date 03-25-2009 11:08:48

### PIEZOCONE SOUNDING WCPT#5



Depth  
Feet

0 50

Coarse Scale  
Fine Scale

' Push Interrupted To Add Rod

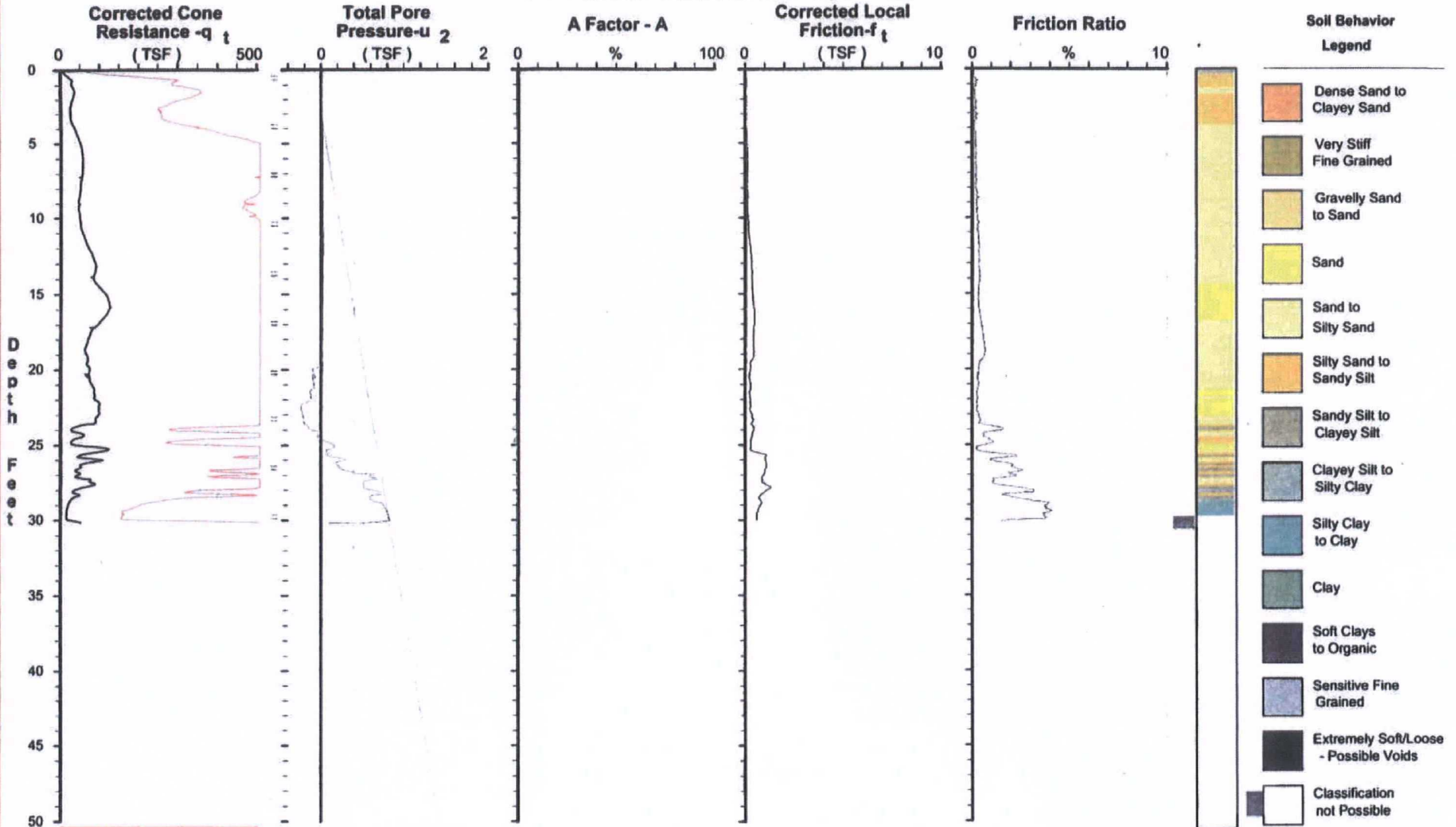
Hydro

**insitu group**

CH2M Hill, Inc.  
West Pasco  
Sounding: WCPT#5  
Test-Date 03-25-2009 11:43:00

REV: 04 - 37.02 - 0

### PIEZOCONE SOUNDING WCPT#6



Depth  
Feet

0 50

Coarse Scale  
Fine Scale

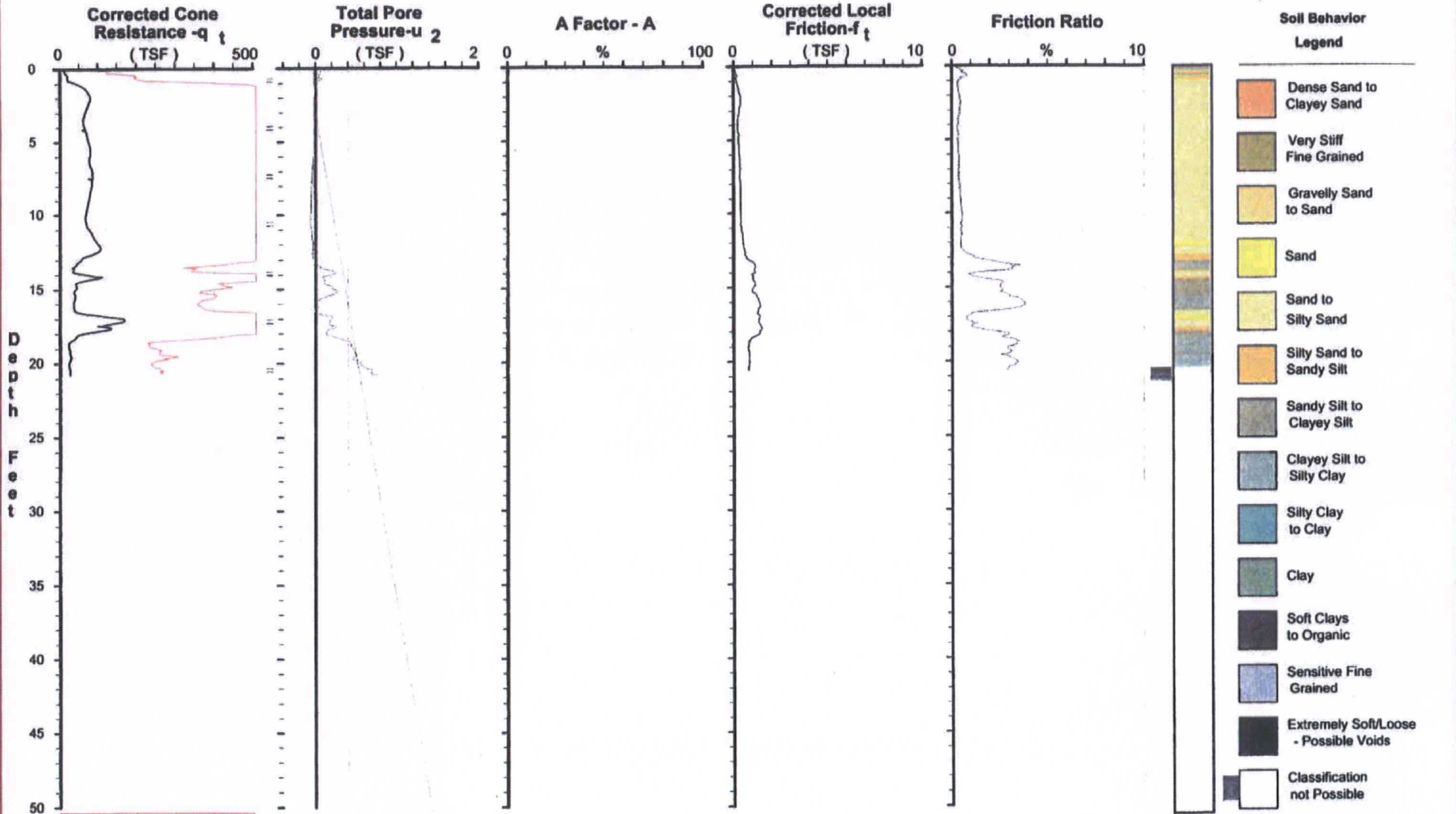
'=' Push Interrupted To Add Rod

Hydro

**insitu group**

CH2M Hill, Inc.  
West Pasco  
Sounding: WCPT#6  
Test-Date 03-25-2009 12:14:58

### PIEZOCONE SOUNDING WCPT#7



0 50  
 Coarse Scale  
 Fine Scale  
 \* Push Interrupted To Add Rod

**insitu group**

CH2M Hill, Inc.  
 West Pasco  
 Sounding: WCPT#7  
 Test-Date 03-25-2009 12:35:12

**Appendix B**

**DIT and Laboratory Test Results**



# UNIVERSAL ENGINEERING SCIENCES

Consultants in Geotechnical Engineering • Environmental Sciences  
Construction Materials Testing • Threshold Inspection • Plans Review  
Private Provider/Building Inspection • Geophysical Services

#### OFFICES IN:

- Atlanta
- Fort Myers
- Fort Pierce
- Gainesville
- Jacksonville
- Leesburg
- Miami
- Ocala
- Orange City
- Orlando
- Palm Coast
- Panama City
- Rockledge
- Sarasota
- St. Augustine
- Tampa
- West Palm Beach

December 22, 2008

CH2M Hill, Inc  
3011 SW Williston Rd.  
Gainesville, Florida 32608

Attention: Kou-Roung Chung

Reference: Geotechnical Report  
DRI Testing  
East and West Pasco County, Florida  
UES Project No. 0830.0800355

Dear Mr. Chung:

Universal Engineering Sciences, Inc. (UES) has completed Double Ring Infiltrometer (DRI) testing on the above-referenced sites in Pasco County, Florida.

As requested, UES performed three (3) DRI tests at locations provided by the client and designated as EP-1, WP-1 and WP-2. One DRI test, designated EP-1 was performed at East Pasco Site, located at Handcart Road and two DRI tests were performed at West Pasco Site, located at Hays Rd. The tests and auger borings were performed at the locations selected by you as shown on the attached Boring/DRI Location Plans, provided by you. DRI tests were completed in general accordance with ASTM D-3385 guidelines. The tests were completed at an approximate depth of 12 inches below the existing ground surface, using a fluid head of 3 inches. Each DRI test was accompanied by a hand auger boring.

The subsurface stratigraphy encountered at the East Pasco boring location consisted of sand with silt (SP-SM). The subsurface stratigraphy encountered at the West Pasco boring locations consisted of sand (SP). Boring EP-1 was terminated at 5.5 feet of depth due to groundwater table found at 4.5 feet of depth. Borings at West Pasco site were extended to 8 feet of depth. No groundwater table was found within the reach of these two borings.

In order to further classify the soils at the East Pasco site, we selected representative samples from the auger boring for laboratory testing. Three (3) moisture content and grain size distribution analysis tests were performed on soil samples obtained from within Boring EP-1. These indices are useful in estimating permeability properties of the soils. Furthermore, the results of these tests provide partial confirmation of our visual classification of the soils penetrated in this exploration. The testing results are presented on the Soil Boring Logs next to the samples tested.

The resulting infiltration rates at locations EP-1, WP-1 and WP-2 were recorded at 0, 8.5 and 10 inches per hour respectively.

CH2M Hill, Inc  
UES Project No. 0830.0800355  
December 22, 2008

Based on the information presented in Pasco County SCS, the East Pasco site is located within Smyrna fine sand formation while the West Pasco Site is located within Candler fine sand formation. Our best estimate based on the SCS information and subsurface soil and groundwater condition is that the seasonal high groundwater level could be on the order of 12 inches below the existing grade at the East Pasco site and more than 6 feet deep at the West Pasco site.


We appreciate the opportunity to have worked with you on this project and look forward to a continued association with CH2M Hill, Inc. Please do not hesitate to contact us if you should have any questions, or if we may further assist you as your plans proceed.

Respectfully submitted,

**UNIVERSAL ENGINEERING SCIENCES, INC.**

Certificate of Authorization No. 549

  
Dusan Jovanovic  
Senior Project Engineer

  
Mark K. Hardy, P.E.  
Tampa Branch Manager  
Florida License No. 57233  
Date 12/22/08

Attachments: Site Aerial Maps  
Boring Location Plans  
Boring Logs  
Grain Size Distribution Curves

Client: (3)





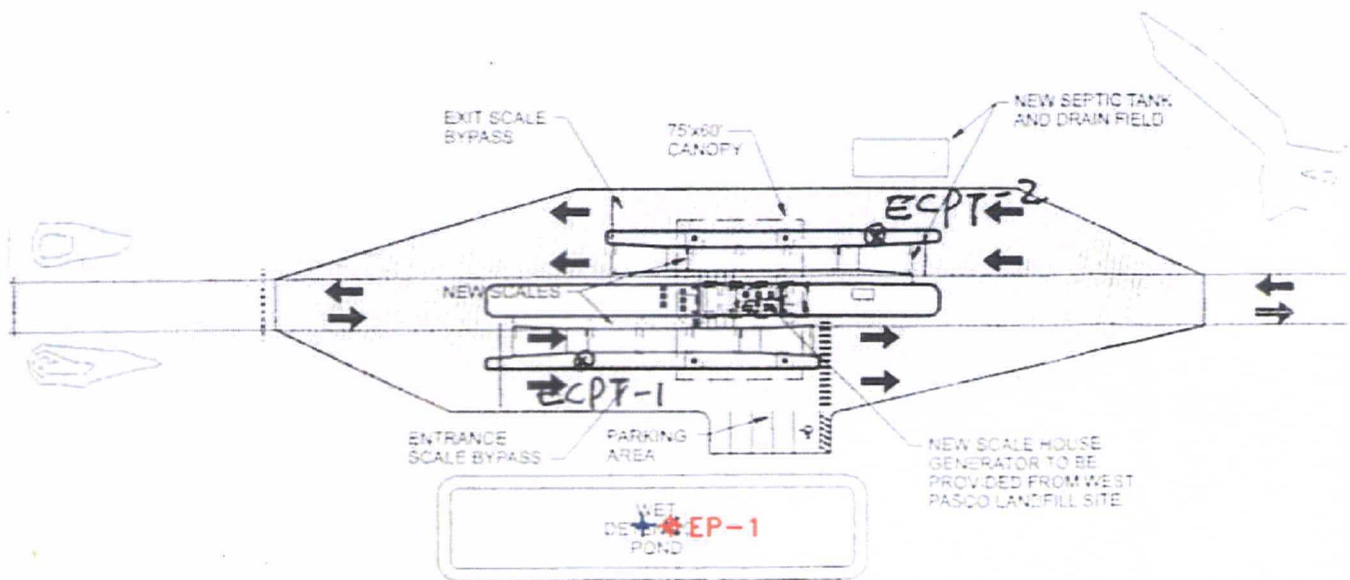
UNIVERSAL  
ENGINEERING SCIENCES

EAST PASCO SITE  
HANDCART ROAD  
DADE CITY, FLORIDA

SITE AERIAL PHOTOGRAPH

CH2MHILL	DRAWN BY: JCM	DATE: DEC 18, 2008
NOT TO SCALE	PROJECT NO: 0830.0800355	REVIEWED BY: MH





**LEGEND:**

- ◆ EP-1 Approximate SPT boring location
- + EP-1 Approximate DRI location



UNIVERSAL  
ENGINEERING SCIENCES

EAST PASCO SITE  
HANDCART ROAD  
DADE CITY, FLORIDA

**BORING LOCATION PLAN**

CH2MHILL

DRAWN BY: JCM

DATE: DEC 18, 2008

NOT TO SCALE

PROJECT NO: 0830.0800355

REVIEWED BY: MH



UNIVERSAL ENGINEERING SCIENCES  
 9802 Palm River Road  
 Tampa, Florida 33619  
 (813) 740-8506

# BORING LOG

PROJECT NO.: 0830.0800355

APPENDIX:

PAGE: 1

PROJECT: Handcart Rd. and Hays Rd. DRI Tests  
 Handcart Rd. and Hays Rd.  
 Pasco County, Florida

BORING DESIGNATION: **EP-1** SHEET: **1 of 1**  
 SECTION: TOWNSHIP: RANGE:

ENGINEER: DJ

G.S. ELEVATION (ft):

DATE STARTED:

CLIENT: CH2M Hill

WATER TABLE (ft): 4.5

DATE FINISHED: 12/3/08

LOCATION: SEE BORING LOCATION PLAN

DATE OF READING: 12/03/08

DRILLED BY: RY

REMARKS:

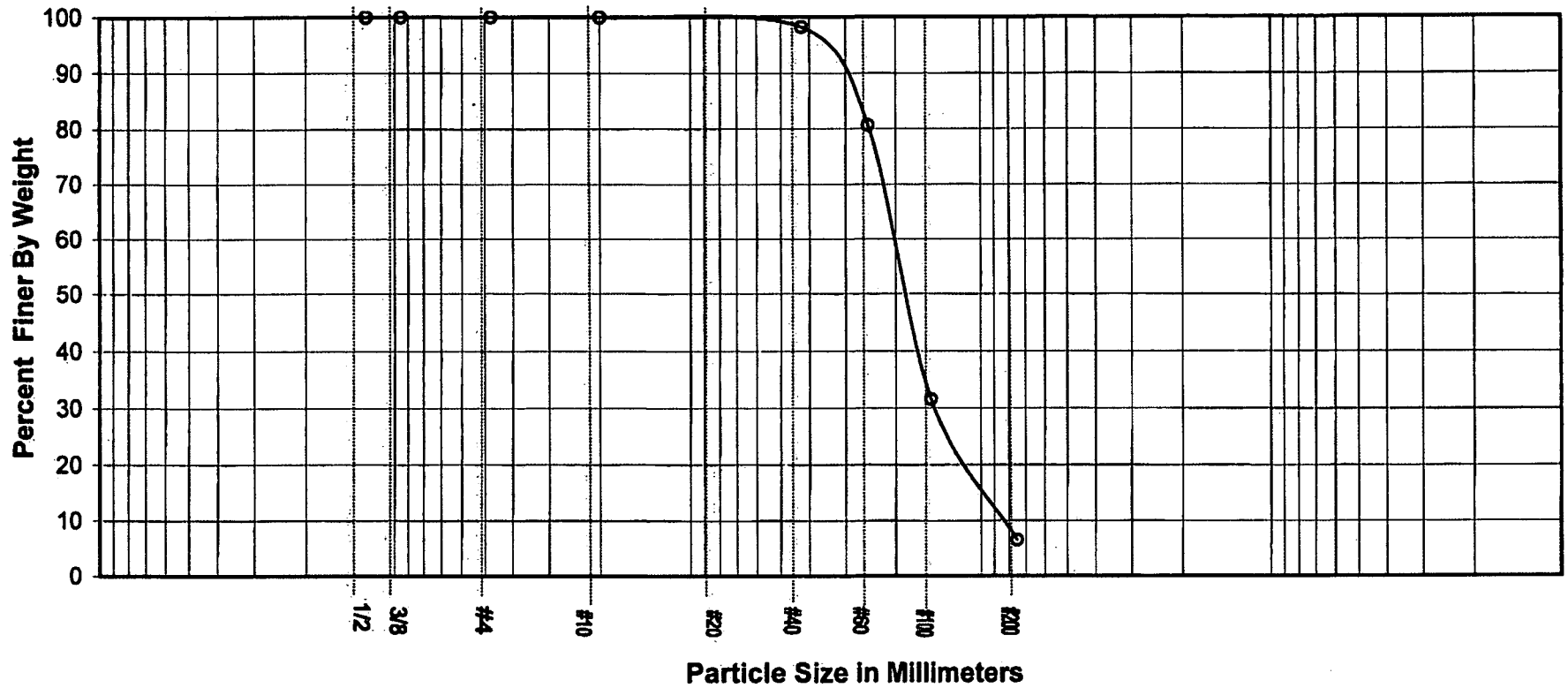
EST. W.S.W.T. (ft): 1.0

TYPE OF SAMPLING: Auger

DEPTH (ft)	S A M P L E	N (bpf)	SPT-N vs DEPTH (bpf)	G W T	S Y M B O L	DESCRIPTION	-200 (%)	MC. (%)	ATTERBERG LIMITS		Kh (ft/day)	ORG (%)	DEPTH (ft)
									LL	PI			
0			0 25 50			Dark gray sand w/ silt and rootlets (SP-SM)	6.5	5.6					0
				▽		Dark brown sand w/ silt (SP-SM)	6.5	6.6					
						Light brown sand w/ silt (SP-SM)	5.4	12.7					
5				▽		Boring terminated at 5.5 ft.							5

NEWJES BORING LOG, HANDCART AND HAYS, GPJ UES, NEW, GDT, 12/16/08

# GRAIN SIZE DISTRIBUTION



GRAVEL		SAND			SILT OR CLAY
COURSE	FINE	COURSE	MEDIUM	FINE	



**UNIVERSAL  
ENGINEERING SCIENCES**

CH2M Hill  
East Pasco Site

**SAMPLE: EP-1 / 0.5' SP-SM**

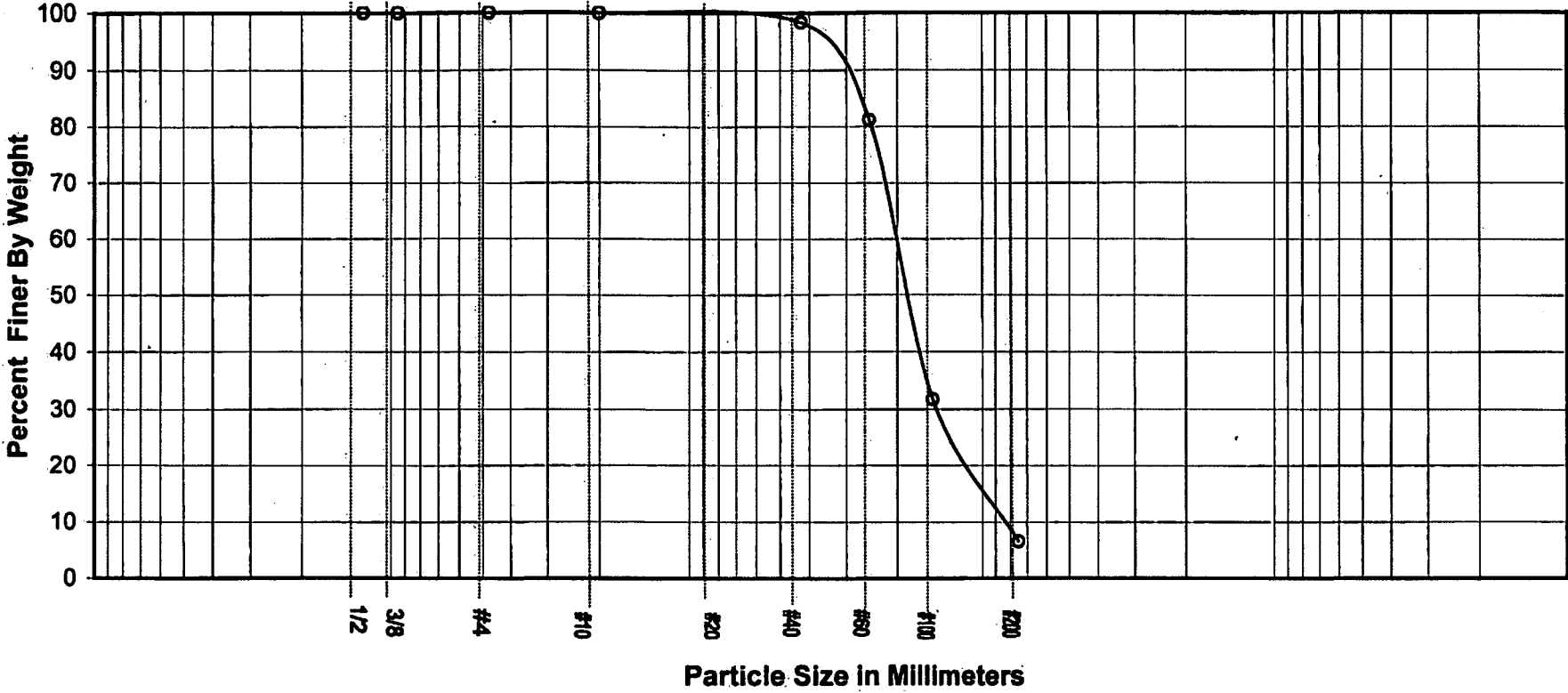
**GRAIN SIZE DISTRIBUTION ANALYSIS**

Project #: 0830.0608477

Tested By: UES

Date: 12/12/2008

# GRAIN SIZE DISTRIBUTION



GRAVEL		SAND			SILT OR CLAY
COURSE	FINE	COURSE	MEDIUM	FINE	



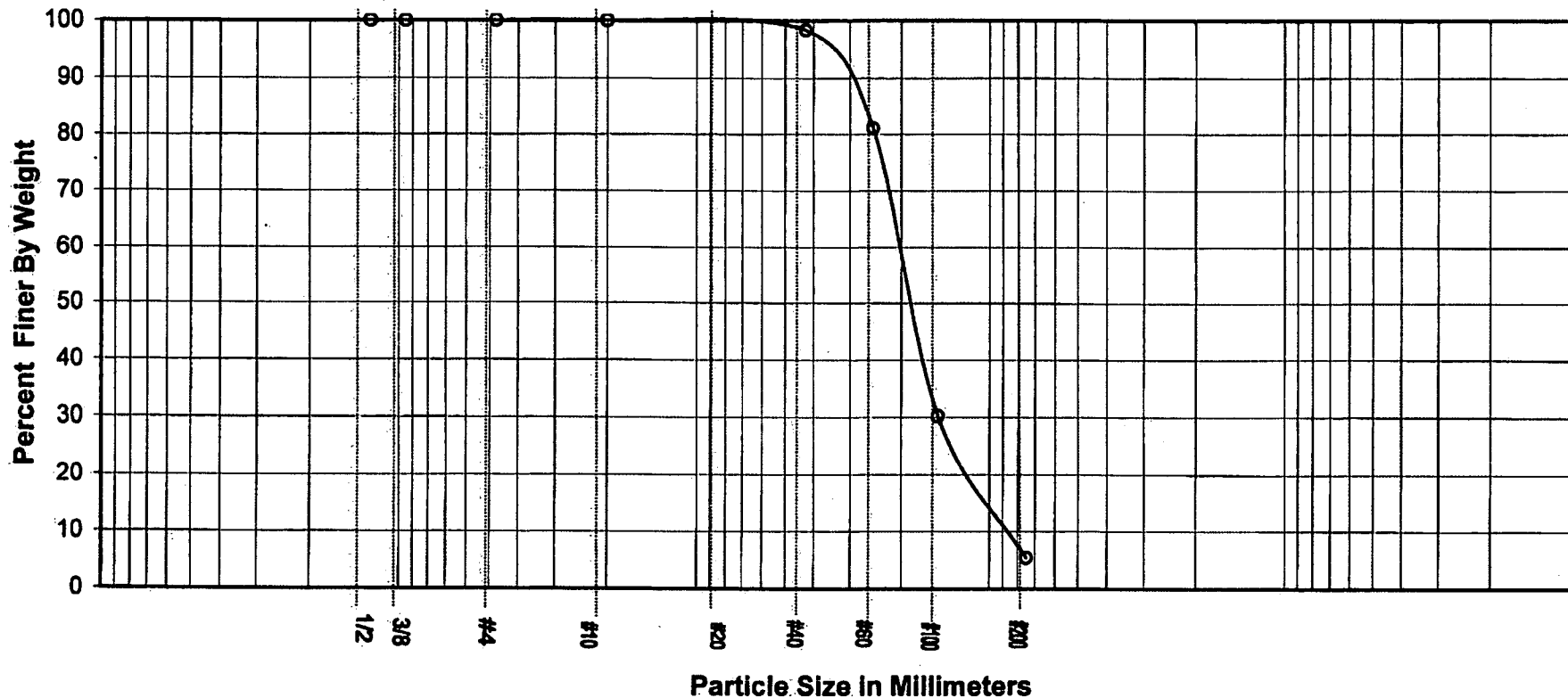
**UNIVERSAL  
ENGINEERING SCIENCES**

CH2M Hill  
East Pasco Site

**SAMPLE: EP-1 / 2.0'    SP-SM**  
**GRAIN SIZE DISTRIBUTION ANALYSIS**

Project #:	0830.0608477	Tested By:	UES	Date:	12/12/2008
------------	--------------	------------	-----	-------	------------

# GRAIN SIZE DISTRIBUTION



GRAVEL		SAND			SILT OR CLAY
COURSE	FINE	COURSE	MEDIUM	FINE	



**UNIVERSAL  
ENGINEERING SCIENCES**

CH2M Hill

East Pasco Site

**SAMPLE: EP-1 / 3.5' SP-SM**

**GRAIN SIZE DISTRIBUTION ANALYSIS**

Project #: 0830.0608477	Tested By: UES	Date: 12/12/2008
-------------------------	----------------	------------------



UNIVERSAL  
ENGINEERING SCIENCES

WEST PASCO SITE  
HAYS ROAD  
DADE CITY, FLORIDA

SITE AERIAL PHOTOGRAPH

CLIENT: CH2MHILL

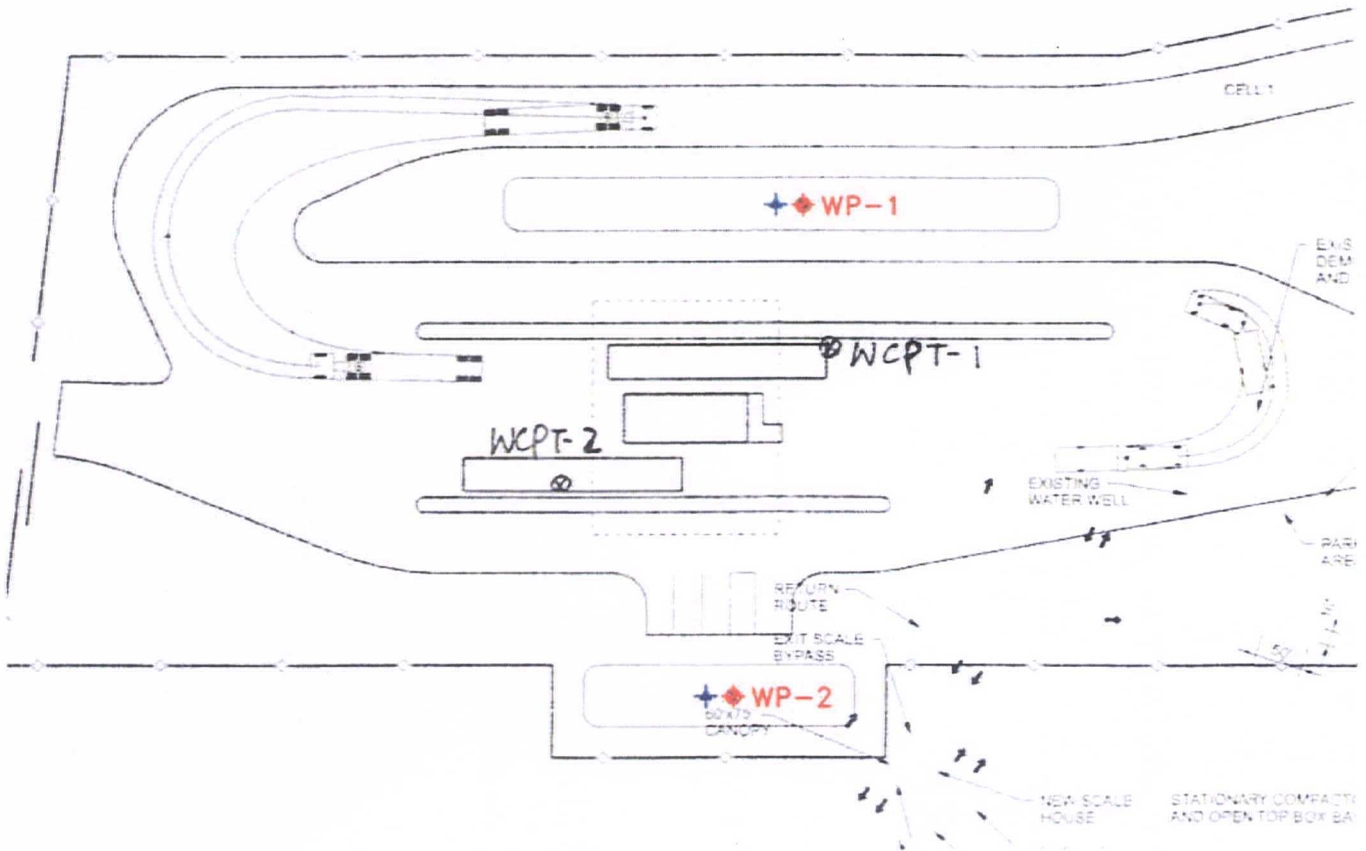
DRAWN BY: JCM

DATE: DEC 18, 2008

SCALE: NOT TO SCALE

PROJECT NO: 0830.0800355

REVIEWED BY: MH



**LEGEND:**

- ◆ EP-1 Approximate SPT boring location
- + EP-1 Approximate DRI location



UNIVERSAL  
ENGINEERING SCIENCES

WEST PASCO SITE  
HAYS ROAD  
DADE CITY, FLORIDA

BORING LOCATION PLAN

CLIENT: CH2MHILL	DRAWN BY: JCM	DATE: DEC 18, 2008
SCALE: NOT TO SCALE	PROJECT NO: 0830.0800355	REVIEWED BY: MH



UNIVERSAL ENGINEERING SCIENCES  
 9802 Palm River Road  
 Tampa, Florida 33619  
 (813) 740-8506

# BORING LOG

PROJECT NO.: 0830.0800355

APPENDIX:

PAGE: 2

PROJECT: Handcart Rd. and Hays Rd. DRI Tests  
 Handcart Rd. and Hays Rd.  
 Pasco County, Florida

BORING DESIGNATION: **WP-1**  
 SECTION: TOWNSHIP:

SHEET: **1 of 1**  
 RANGE:

ENGINEER: DJ

G.S. ELEVATION (ft):

DATE STARTED:

CLIENT: CH2M HILL

WATER TABLE (ft): NF

DATE FINISHED: 12/3/08

LOCATION: SEE BORING LOCATION PLAN

DATE OF READING: 12/03/08

DRILLED BY: RY

REMARKS: NF = Not Found

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: Auger

DEPTH (ft)	SAMPLING	N (bpf)	SPT-N vs DEPTH (bpf)			GWT	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		Kh (ft/day)	ORG (%)	DEPTH (ft)
			0	25	50						LL	PI			
0							Light gray sand w/ rootlets (SP)							0	
							Light brown sand (SP)								
5														5	
							Boring terminated at 8 ft.								

NEW UES BORING LOG HANDCART AND HAYS.GPJ UES NEW.GDT 12/16/08





UNIVERSAL ENGINEERING SCIENCES  
 9802 Palm River Road  
 Tampa, Florida 33619  
 (813) 740-8506

# BORING LOG

PROJECT NO.: 0830.0800355

APPENDIX:

PAGE: 3

PROJECT: Handcart Rd. and Hays Rd. DRI Tests  
 Handcart Rd. and Hays Rd.  
 Pasco County, Florida

BORING DESIGNATION: **WP-2** SHEET: **1 of 1**  
 SECTION: TOWNSHIP: RANGE:

ENGINEER: DJ

G.S. ELEVATION (ft):

DATE STARTED:

CLIENT: CH2M Hill

WATER TABLE (ft): NF

DATE FINISHED: 12/4/08

LOCATION: SEE BORING LOCATION PLAN

DATE OF READING: 12/04/08

DRILLED BY: RY

REMARKS: NF = Not Found

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: Auger

DEPTH (ft)	SAMPLE	SPT-N vs DEPTH (bpf)			GWT	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG-LIMITS		Kh (ft/day)	ORG (%)	DEPTH (ft)
		0	25	50						LL	PI			
0						Gray brown sand w/rootlets (SP)							0	
						Light orange brown sand (SP)								
5													5	
						Boring terminated at 8 ft.								

NEW UES BORING LOG HANDCART AND HAYS.GPJ UES NEW.GDT 12/16/08

Attachment E  
ICPR Model

# Pre Development

## Nodes

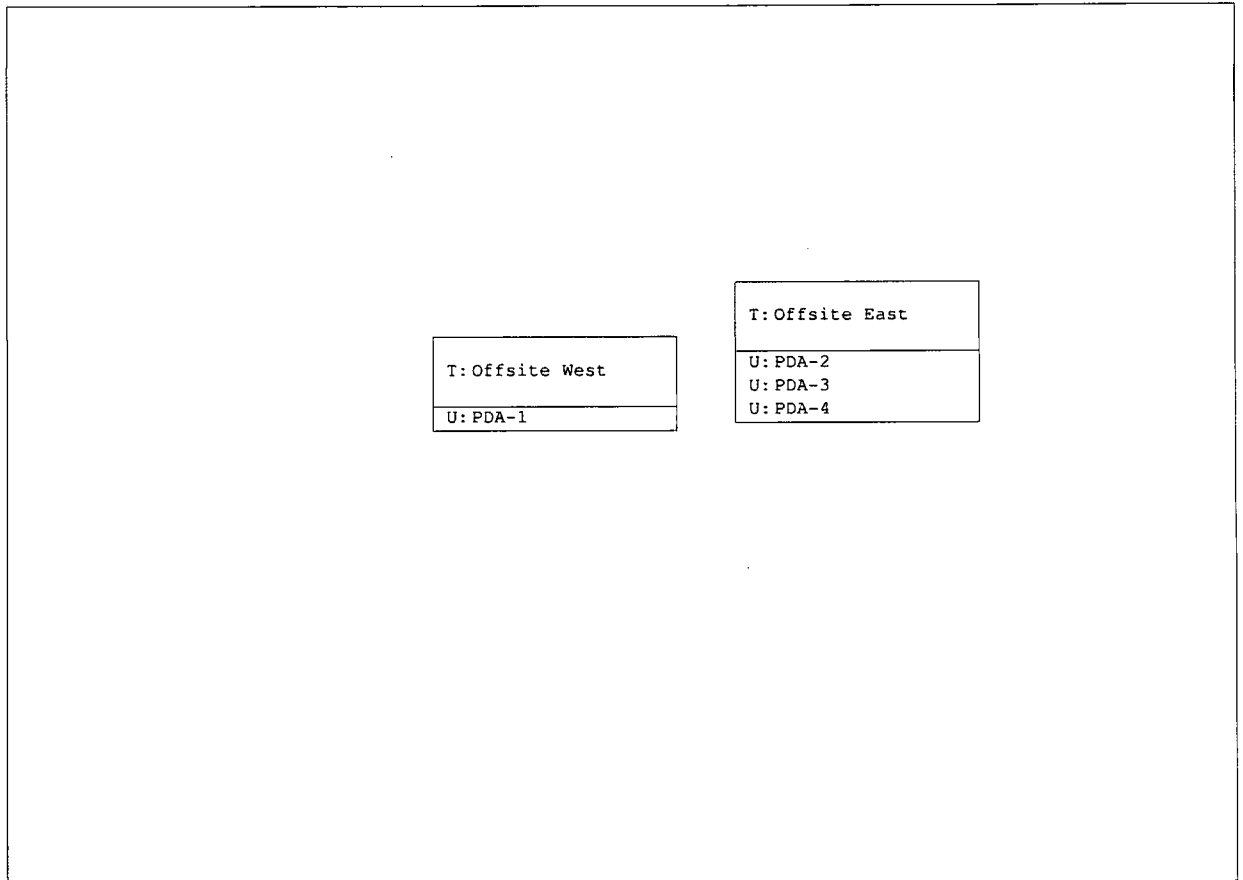
A Stage/Area  
V Stage/Volume  
T Time/Stage  
M Manhole

## Basins

O Overland Flow  
U SCS Unit CN  
S SBUH CN  
Y SCS Unit GA  
Z SBUH GA

## Links

P Pipe  
W Weir  
C Channel  
D Drop Structure  
B Bridge  
R Rating Curve  
H Breach  
E Percolation  
F Filter  
X Exfil Trench



	PDA-1	PDA-2	PDA-3	PDA-4
Name:	PDA-1	PDA-2	PDA-3	PDA-4
Group:	BASE	BASE	BASE	BASE
Simulation:	HYDRO-25YR	HYDRO-25YR	HYDRO-25YR	HYDRO-25YR
Node:	Offsite West	Offsite East	Offsite East	Offsite East
Type:	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh484	Uh484	Uh484	Uh484
Peaking Factor:	484.0	484.0	484.0	484.0
Spec Time Inc(min):	1.33	1.33	1.33	1.33
Comp Time Inc(min):	1.33	1.33	1.33	1.33
Rain File:	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	9.500	9.500	9.500	9.500
Duration(hrs):	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite
TC(min):	10.00	10.00	10.00	10.00
Time Shift(hrs):	0.00	0.00	0.00	0.00
Area(ac):	1.777	0.811	6.030	1.670
Vol of Unit Hyd(in):	1.001	1.000	1.000	1.000
Curve Num:	40.000	40.000	37.000	37.000
DCIA(%):	0.000	0.000	0.000	0.000
Time Max(hrs):	12.04	12.04	12.04	12.04
Flow Max(cfs):	2.81	1.28	7.17	1.99
Runoff Volume(in):	1.962	1.962	1.604	1.604
Runoff Volume(ft3):	12659	5777	35116	9725

# Post Development

## Nodes

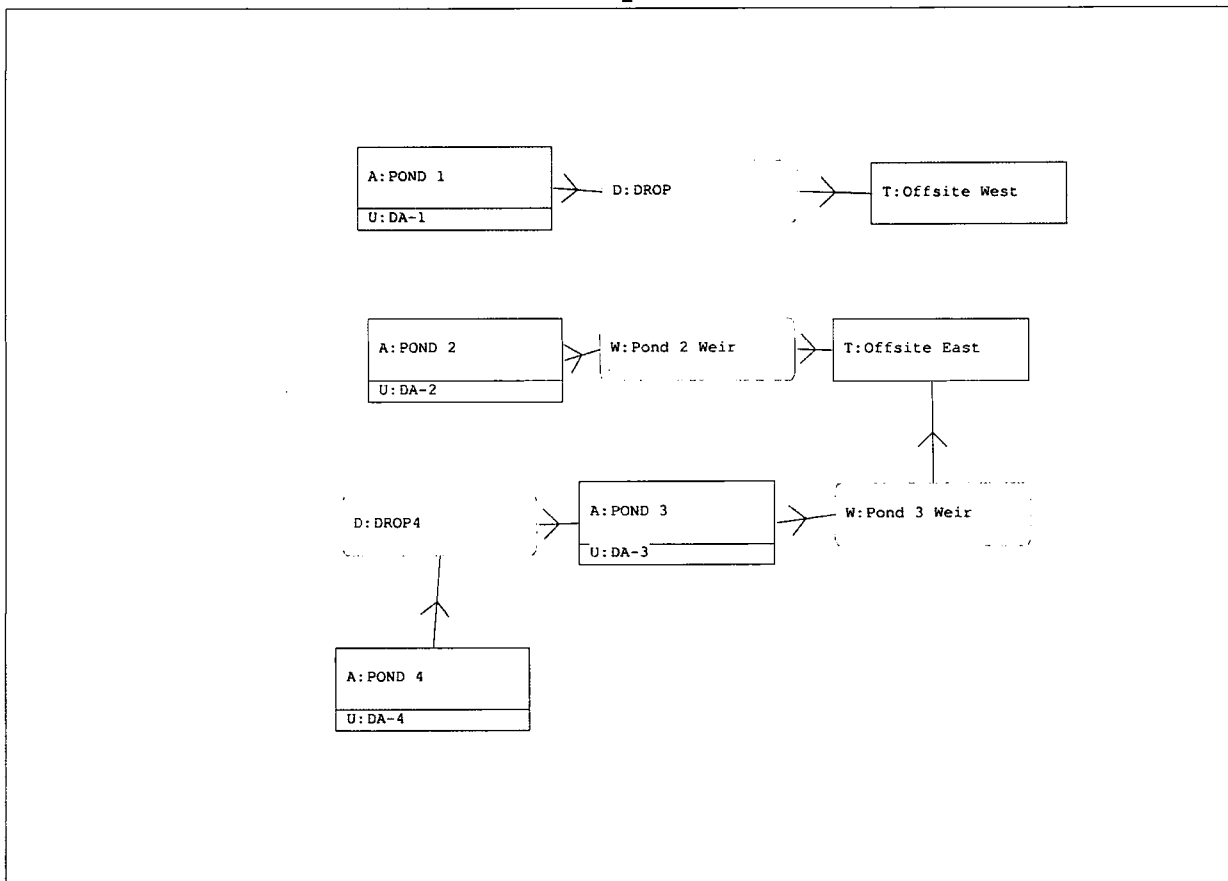
A Stage/Area  
V Stage/Volume  
T Time/Stage  
M Manhole

## Basins

O Overland Flow  
U SCS Unit CN  
S SBUH CN  
Y SCS Unit GA  
Z SBUH GA

## Links

P Pipe  
W Weir  
C Channel  
D Drop Structure  
B Bridge  
R Rating Curve  
H Breach  
E Percolation  
F Filter  
X Exfil Trench



=====  
 Basins  
 =====

Name: DA-1                      Node: POND 1                      Status: Onsite  
 Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484                      Peaking Factor: 484.0  
 Rainfall File:                      Storm Duration(hrs): 0.00  
 Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
                     Area(ac): 1.777                      Time Shift(hrs): 0.00  
 Curve Number: 70.00                      Max Allowable Q(cfs): 999999.000  
                     DCIA(%): 0.00

-----

Name: DA-2                      Node: POND 2                      Status: Onsite  
 Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484                      Peaking Factor: 484.0  
 Rainfall File:                      Storm Duration(hrs): 0.00  
 Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
                     Area(ac): 0.811                      Time Shift(hrs): 0.00  
 Curve Number: 71.00                      Max Allowable Q(cfs): 999999.000  
                     DCIA(%): 0.00

-----

Name: DA-3                      Node: POND 3                      Status: Onsite  
 Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484                      Peaking Factor: 484.0  
 Rainfall File:                      Storm Duration(hrs): 0.00  
 Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
                     Area(ac): 6.030                      Time Shift(hrs): 0.00  
 Curve Number: 67.00                      Max Allowable Q(cfs): 999999.000  
                     DCIA(%): 0.00

-----

Name: DA-4                      Node: POND 4                      Status: Onsite  
 Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484                      Peaking Factor: 484.0  
 Rainfall File:                      Storm Duration(hrs): 0.00  
 Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
                     Area(ac): 1.670                      Time Shift(hrs): 0.00  
 Curve Number: 75.00                      Max Allowable Q(cfs): 999999.000  
                     DCIA(%): 0.00

=====  
 Nodes  
 =====

Name: Offsite East                      Base Flow(cfs): 0.000                      Init Stage(ft): 45.000  
 Group: BASE                      Warn Stage(ft): 45.000  
 Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	40.000
72.00	40.000

-----

Name: Offsite West                      Base Flow(cfs): 0.000                      Init Stage(ft): 42.000  
 Group: BASE                      Warn Stage(ft): 42.000  
 Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	42.000
72.00	42.000

-----

Name: POND 1                      Base Flow(cfs): 0.000                      Init Stage(ft): 45.000  
 Group: BASE                      Warn Stage(ft): 48.000  
 Type: Stage/Area



Name: DROP                      From Node: POND 1                      Length(ft): 43.00  
Group: BASE                      To Node: Offsite West                      Count: 1

UPSTREAM	DOWNSTEAM	Friction Equation: Average Conveyance
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 18.00	18.00	Flow: Both
Rise(in): 18.00	18.00	Entrance Loss Coef: 0.500
Invert(ft): 45.100	45.000	Exit Loss Coef: 1.000
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 1 for Drop Structure DROP \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Horizontal	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 36.00	Invert(ft): 47.900	
Rise(in): 24.00	Control Elev(ft): 47.900	

Name: DROP4                      From Node: POND 4                      Length(ft): 180.00  
Group: BASE                      To Node: POND 3                      Count: 1

UPSTREAM	DOWNSTEAM	Friction Equation: Average Conveyance
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 18.00	18.00	Flow: Both
Rise(in): 18.00	18.00	Entrance Loss Coef: 0.500
Invert(ft): 40.000	39.000	Exit Loss Coef: 1.000
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 1 for Drop Structure DROP4 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Horizontal	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 36.00	Invert(ft): 48.000	
Rise(in): 24.00	Control Elev(ft): 48.000	

==== Weirs =====

Name: Pond 2 Weir                      From Node: POND 2  
Group: BASE                      To Node: Offsite East  
Flow: Both                      Count: 1  
Type: Vertical: Fread                      Geometry: Trapezoidal

Bottom Width(ft): 4.00  
Left Side Slope(h/v): 4.00  
Right Side Slope(h/v): 4.00  
Invert(ft): 48.200  
Control Elevation(ft): 48.200  
Struct Opening Dim(ft): 9999.00

TABLE

Bottom Clip(ft): 0.000  
Top Clip(ft): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

Name: Pond 3 Weir                      From Node: POND 3



Group: BASE To Node: Offsite East  
Flow: Both Count: 1  
Type: Vertical: Fread Geometry: Trapezoidal

Bottom Width(ft): 4.00  
Left Side Slope(h/v): 4.00  
Right Side Slope(h/v): 4.00  
Invert(ft): 41.500  
Control Elevation(ft): 41.500  
Struct Opening Dim(ft): 9999.00

TABLE

Bottom Clip(ft): 0.000  
Top Clip(ft): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

==== Hydrology Simulations =====

Name: HYDRO-25YR  
Filename: G:\PascoCountyFl\378217\Technical\_Leads\_Folder\CE\Stormwater\ICPR Analysis\Post-Develop\West\HYDRO-25YR.R32

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Flmod  
Rainfall Amount(in): 9.50

Time(hrs)	Print Inc(min)
30.000	5.00

==== Routing Simulations =====

Name: RT-25YR Hydrology Sim: HYDRO-25YR  
Filename: G:\PascoCountyFl\378217\Technical\_Leads\_Folder\CE\Stormwater\ICPR Analysis\Post-Develop\West\RT-25YR.I32

Execute: Yes Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 168.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
168.000	15.000

Group	Run
BASE	Yes

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Offsite East	BASE	RT-25YR	0.00	40.00	45.00	-5.0000	0	12.53	9.71	0.00	0.00
Offsite West	BASE	RT-25YR	0.00	42.00	42.00	0.0000	0	12.46	2.32	0.00	0.00
POND 1	BASE	RT-25YR	12.46	48.07	48.00	0.0050	9447	12.00	9.03	12.46	2.32
POND 2	BASE	RT-25YR	12.40	48.40	49.00	0.0023	8968	12.00	4.21	12.40	1.27
POND 3	BASE	RT-25YR	12.55	42.09	43.00	0.0050	49757	12.00	37.04	12.55	8.54
POND 4	BASE	RT-25YR	12.05	48.42	49.00	0.0034	7025	12.00	9.32	12.05	8.67

Attachment F  
Pipe Sizing Calculations

**Pipe Sizing & Headloss Spreadsheet**

Project: Pasco West Landfill

Location: Pasco County, FL

STRUCTURE		INLET DRAINAGE AREA & FLOW					MIN PIPE DESIGN CAPACITY						DESIGN PIPE CAPACITY						HEAD LOSS & HYDRAULIC GRADE				
FROM	TO	AREA ACRES	RUNOFF COEF. C	TIME OF CONC. MIN.	I IN/HR	Q <sub>D</sub> CFS	PIPE SIZE IN.	PIPE LENGTH FT	SLOPE %	PIPE FRICT. N	V FT/SEC	Q <sub>P</sub> CFS	PIPE SIZE IN.	PIPE LENGTH FT	SLOPE %	PIPE FRICT. N	V FT/SEC	Q <sub>P</sub> CFS	Structure EL	Top of Structure EL	Head Loss FT	Tail Water EL	Hydraulic Grade EL
Inlet	Pond 3	0.43	0.90	15	6.4	2.48							18	74	2.30	0.013	9.07	16.03	Inlet	44.00	1.17	39.00	40.17

Tailwater EL = Control EL

SPREADSHEET FORMULAS:

DRAINAGE AREA FLOW:  $Q_D = \text{ACRES} \times C \times I$   
 PIPE VELOCITY:  $V = (1.486 \times \text{Hydraulic Radius}^{2/3} \times \text{Slope}^{1/2}) / N$   
 PIPE CAPACITY FLOW:  $Q_P = \text{Cross-Sec Area} \times \text{Velocity} = (3.14 \times \text{diameter inches} / 12 \text{ Ft})^2 / 4 \times V$   
 HEAD LOSS (MINOR IGNORED):  $H = (3.022 \times V^{1.85} \times L) / (C^{1.85} \times D^{1.17})$ ; C = 120 (HAZEN WILLIAMS)  
 HYDRAULIC GRADE:  $G = \text{TAIL WATER} + \text{HEAD LOSS}$



3715 Northside Pkwy., Building 300, Suite 400  
Atlanta, GA 30327  
tel: 404 720-1400  
fax: 404 467-4130

To FDEP SW District, Susan Pelz *ppk/mb*

Dept. of Environmental  
Protection

MAY 02 2011

Southwest District



April 29, 2011

Mr. John Power  
Solid Waste Department Operations Manager  
Pasco County  
14230 Hayes Road  
Spring Hill, FL

Subject: West Pasco Class I Landfill-Revised NMOC Emission Rate Report  
Power Plant Certification No. PA87-23

Dear Mr. Power:

Camp Dresser & McKee Inc. (CDM) is pleased to provide you with an annual revision of the non-methane organic compound (NMOC) emission estimate for the West Pasco Class I Landfill (Landfill) located at Pasco County Resource Recovery Facility in Spring Hill, Florida. In accordance with 40 CFR 60.757(b) (1), Pasco County is required to submit an annual NMOC emission estimate to FDEP until the NMOC emission rate exceeds 50 Mg/Yr. The annual NMOC emission report must be based on the actual waste disposal information for the subject year and use the site specific NMOC concentration of 36 ppmv as hexane. This report provides an annual revision to the prior NMOC emission rate obtained from the Tier II testing conducted in December 2009, and includes waste in place through the end on 2010.

The prior Tier II results demonstrated that the landfill did not exceed the 50 Megagram per year (Mg/yr) limit established by 40 CFR 60 Subpart WWW; exceedance of this limit would have required the installation of a gas collection and control system (GCCS). The landfill is currently exempt from installing a GCCS.

Any disposed waste that is not yet two years old in the active parts of the landfill is not subject to Tier II sampling requirements. However landfill areas having waste in place which is two or more years old are subjected to Tier II sampling per 40 CFR 60.754(a)(3). Hence all the waste disposed in the landfill through the end of December 2010 is used in this estimate, since the active area (cell SW-2) contains waste more than two years old.





Mr. John Power  
April 29, 2011  
Page 2

#### UPDATED NMOC EMISSION ESTIMATE (2010)

The waste tonnages from the landfill facility from inception in June 1990 through July 2008 are provided in Attachment-1A; and tonnages from July 2008 through December 2010 are provided in Attachment-1B. Attachment 2 presents an updated NMOC emission estimate for waste in place through end of December 2010 and was calculated using the United States Environmental Protection Agency (USEPA) recommended Landfill Gas Generation Emissions Model (LandGEM Version 3.02). Based on the results of the modeling, the calculated NMOC emission rate is 0.401 Mg/Yr. The emission estimate has not yet exceeded the 50 Mg/Yr limit established by 40 CFR 60 Subpart WWW; which requires the installation of a GCCS. The current site specific data shows the NMOC emission rate to be significantly below that required for installation of a GCCS per requirements of 40 CFR 60 Subpart WWW. In accordance with 40 CFR 60.754(a)(3)(iii), it will be necessary for the County to retest the site-specific NMOC concentration every five years in order to determine if the exempt status can be maintained, particularly if more waste is placed within the landfill during this time. Since the last site-specific NMOC sampling was performed in December 2009, the retesting for site specific NMOC emissions is required by December 2014.

CDM is submitting four copies of original reports to the County. Please forward one signed and sealed original to each of the two FDEP sections listed below. If you have any questions or comments regarding this letter or the data presented herein, please call me at (404) 720-1400 or Aamod at (813) 281-2900.

Sincerely

Rajendra Vaidya, Ph.D., P.E.  
Environmental Engineer  
Camp Dresser & McKee Inc.



Mr. John Power  
April 29, 2011  
Page 3

Enclosures

- 1) Division of Air Resource Management  
Florida Department of Environmental Protection  
Southwest District Office  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637
  
- 2) Ms. Susan Pelz, P.E.  
Solid Waste Section  
Florida Department of Environmental Protection  
Southwest District Office  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637

cc: Aamod Sonawane, CDM  
Therese Schaffer, CDM (email copy only)



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

MAY 02 2011

SOUTHWEST DISTRICT TAMPA

**Pasco County Utilities**

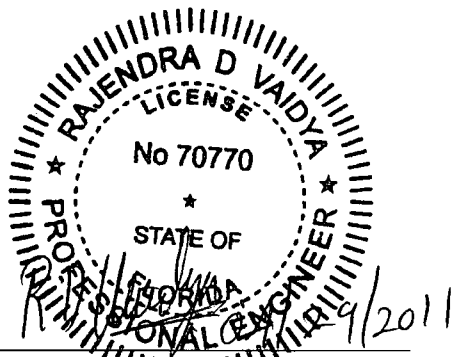
**West Pasco Class I Landfill  
Solid Waste Cells SW-1 and SW-2  
Revised NMOC Emission Rate Report  
For Reporting Year 2010  
Power Plant Certification No. PA87-23**

**14230 Hays Road  
Spring Hill, Pasco County, Florida**

**April 2011**

**Prepared for:**  
Pasco County Utilities  
7530 Little Road  
New Port Richey, FL 34654

**Prepared by:**  
Camp Dresser & McKee Inc.  
1715 North Westshore Blvd., Suite 875  
Tampa, Florida 33607



Rajendra D. Vaidya, Ph.D., P.E.  
Florida-Registered  
Professional Engineer No. 70770





Attachment-1A

Waste Disposal Information-

June 1990 through July 2008

Attachment 1A

Table 1A-1 Summary of Tonnage

Cell	From	To	Glass Cullet (US Tons)	MSW (US Tons)
SW-1	Jun-90	Sep-96	752.24	0.00
	Oct-96	Sep-97	1,766.94	0.00
	Oct-97	Jun-98	616.41	16,253.47
	Jul-98	Jul-99	812.95	4,824.23
	Aug-99	Jun-00	609.23	39,336.90
	Jul-00	Sep-01	482.68	15,907.86
	Oct-01	Sep-02	266.46	17,260.70
	Oct-02	Sep-03	507.53	88.77
	Oct-03	Jun-04	609.89	10.94
	Jul-04	Oct-04	70.39	11,328.69
SW-2	Nov-04	Sep-05	11.73	44,372.95
	Oct-05	Jul-06	0*	53,622.39
	Aug-06	Jul-07	-	55,217.06
	Aug-07	Jul-08	-	7,394.19

Note: 1) Glass Cullet is primarily silica like inert material obtained from waste to energy operations by combustion of waste. 2) \* denotes that Glass Cullet was stopped being disposed in SW cells.

Table 1A-2 MSW Yearly Tonnage Disposal

Year	MSW (US Tons)
1990	0.00
1991	0.00
1992	0.00
1993	0.00
1994	0.00
1995	0.00
1996	0.00
1997	5,417.82
1998	13,062.21
1999	20,478.07
2000	27,819.63
2001	13,859.89
2002	12,967.72
2003	70.23
2004	19,403.79
2005	52,391.86
2006	60,542.78
2007	35,290.86
2008	4,313.28

Note: Yearly tonnage from June 1990 to July 2008

**PASCO COUNTY, FLORIDA  
INTER-OFFICE MEMORANDUM**

TO: Colleen Scott  
Manager of Accounting  
And Financial Reporting

DATE: 01/09/09

FILE: UTFSSP09-153

THRU: Robert J. Sigmond  
Utilities Fiscal and  
Business Services Director

SUBJECT: Financial Responsibility  
Long Term Care/Closure  
West Pasco Class 1-SW1&SW2  
GMS#4051M30035  
PAS 87-23

FROM: Joanne M. Chamberlain  
Accountant II  
Utilities Solid Waste

REFERENCE:

Please note the following figures to be utilized as Escrow/Accrual for Long Term Care and Closure:

**West Pasco Class I SW-1 & SW-2 - 20 Acres**  
**Hays Road, Spring Hill**

Built as a municipal solid waste cell.

Design for SW-1 is 465,000 cy (per Camp, Dresser & McKee) - estimated for 24 year life. Construction was completed in June 1990. Design for SW-2 is 465,000 cy, and it was completed in 2002. The purpose was primarily to be an emergency by-pass for solid waste in case the Waste-To-Energy Facility was not operational. Glass cullet, resulting from the MRF operation had been the only waste permanently landfilled prior to fiscal year 1998. MSW had been placed in the cell but was removed and utilized by the Waste-To-Energy Facility. MSW tonnages were then permanently landfilled through September 2002. The Class SW-1 landfill operation was stopped on October 22, 2004. The Class SW-2 landfill then began receipt of Municipal Solid Waste on November 9, 2004.

**Solid Waste Cell 1**

	<u>Glass Cullet</u>	<u>MSW</u>	<u>Total</u>
Inception thru September 1996	752.24		752.24
October 1, 1996 thru Sept. 1997	1,766.94		1,766.94
October 1, 1997 thru June 1998	616.41	16,253.47	16,869.88
July 1, 1998 thru July 1999	812.95	4,824.23	5,637.18
August 1, 1999 thru June 2000	609.23	39,336.90	39,946.13
July 1, 2000 thru Sept. 2001	482.68	15,907.86	16,390.54
October 1, 2001 thru Sept. 2002	266.46	17,260.70	17,527.16
October 1, 2002 thru Sept. 2003	507.53	88.77	596.30
October 1, 2003 thru June 2004	609.89	10.94	620.83
July 1, 2004 thru Oct. 2004	<u>70.39</u>	<u>11,328.69</u>	<u>11,399.08</u>

TOTAL: 6,494.72 105,011.56 111,506.28

**Solid Waste Cell 2**

	<u>Glass Cullet</u>	<u>MSW</u>	<u>Total</u>
November 2004 thru Sept. 2005	11.73	44,372.95	44,384.68
October 2005 thru July 2006	0*	53,622.39	53,622.39
August 2006 thru July 2007	0	55,217.06	55,217.06
August 2007 thru July 2008	<u>0</u>	<u>7,394.19</u>	<u>7,394.19</u>
TOTAL:	11.73	160,606.59	160,618.32
<b>Total of SW-1 and SW-2:</b>	<b>6,506.45</b>	<b>265,618.15</b>	<b>272,124.60</b>

\*Glass Cullet no longer goes to the Solid Waste cells

1 Ton of glass cullet equals 1.23 cubic yards.

6,506.45 tons x 1.23 cubic yards = 8,002.93 yards.

1 Ton of MSW equals 1.43 cubic yards.

265,618.15 tons x 1.43 cubic yards = 379,833.95 yards.

Landfill cover @ 15% = 58,175.53 yards.

Closure costs are based on SW1 & SW2 combined by FDEP letter dated January 6, 2009 (attached).  
Estimated closure costs are \$2,336,591.74.

Glass Cullet	8,002.93 yards
MSW	379,833.95 yards
Cover	<u>58,175.53 yards</u>
Total	446,012.41

**Escrow:**

Estimated closure costs	\$2,336,591.74
Long Term Care	<u>0.00</u> (Still Open)
	\$2,336,591.74
	 \$2,336,591.74
	<u>.7361*</u>
	<b>\$1,719,965.18</b>

\* CE x (DE/DL)-E  
\$2,336,591.74 (212/288 months) - 0

Utilize 212 months thru September 30, 2008 for escrow

**Accrual:**

Estimated closure costs	\$2,336,591.74	
Long Term Care	<u>5,790,258.21</u>	(\$193,008.61 x 30 years)
	\$8,126,849.95	
	\$8,126,849.95	
	<u>.4796*</u>	percent of capacity
	<b>\$3,897,637.24</b>	

\*446,012.41 / 930,000 cubic yards = .4796

*Please increase escrow from \$1,582,955.42 to \$1,719,965.18.*

*Please increase accrual from \$3,688,400.58 to \$3,897,637.24.*

Any questions, please advise.

RJS/jmc

cc: Bruce E. Kennedy, P.E., Assistant County Administrator (Utilities Services Branch)  
John P. Power, Solid Waste Facility Manager

**Attachment-1B**

**Waste Disposal Information-**

**July 2008 through December 2010**

**PASCO COUNTY UTILITIES - SOLID WASTE  
TONNAGE SUMMARY FROM COUNTY DATA**

Table 1B-1 Yearly Tonnage Disposal

<b>Period</b>	<b>Landfilled Class I Putrescible Waste (U.S Tons)</b>
Aug-08	226.31
Sep-08	454.89
Oct-08	164.66
Nov-08	129.68
Dec-08	85.42
Jan-09	110.23
Feb-09	66.14
Mar-09	97.07
Apr-09	200.87
May-09	47.32
Jun-09	0.00
Jul-09	17.22
Aug-09	21.30
Sep-09	0.00
Oct-09	33.48
Nov-09	230.69
Dec-09	1,147.67
Jan-10	2.91
Feb-10	0.00
Mar-10	1.27
Apr-10	62.51
May-10	54.35
Jun-10	93.44
Jul-10	41.56
Aug-10	134.02
Sep-10	137.44
Oct-10	47.54
Nov-10	87.91
Dec-10	41.53

**PASCO COUNTY UTILITIES - SOLID WASTE**

TONNAGE SUMMARY - 2008

Quarter Ending September 30, 2008

MATERIAL	West Pasco Class I Tonnage		
	JULY	AUGUST	SEPTEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	7,842.84	7,686.09	7,762.61
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	349.88	226.31	454.89
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>8,192.72</b>	<b>7,912.40</b>	<b>8,217.50</b>
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>8,192.72</b>	<b>7,912.40</b>	<b>8,217.50</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	<b>7,842.84</b>	<b>7,686.09</b>	<b>7,762.61</b>
<b>SOLID WASTE CELL</b>	<b>349.88</b>	<b>226.31</b>	<b>454.89</b>

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

\*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.



**PASCO COUNTY UTILITIES - SOLID WASTE**

TONNAGE SUMMARY - 2008

Quarter Ending December 31, 2008

MATERIAL	West Pasco Class I Tonnage		
	OCTOBER	NOVEMBER	DECEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	6,658.72	6,493.18	7,869.64
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	164.66	129.68	85.42
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>6,823.38</b>	<b>6,622.86</b>	<b>7,955.06</b>
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>6,823.38</b>	<b>6,622.86</b>	<b>7,955.06</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	<b>6,658.72</b>	<b>6,493.18</b>	<b>7,869.64</b>
<b>SOLID WASTE CELL</b>	<b>164.66</b>	<b>129.68</b>	<b>85.42</b>

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

\*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.

**PASCO COUNTY UTILITIES - SOLID WASTE**

TONNAGE SUMMARY - 2008  
 Quarter Ending March 31, 2009

MATERIAL	West Pasco Class I Tonnage		
	JANUARY	FEBRUARY	MARCH
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	7,102.45	6,939.37	5,046.67
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	110.23	66.14	97.07
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>7,212.68</b>	<b>7,005.51</b>	<b>5,143.74</b>
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>7,212.68</b>	<b>7,005.51</b>	<b>5,143.74</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	<b>7,102.45</b>	<b>6,939.37</b>	<b>5,046.67</b>
<b>SOLID WASTE CELL</b>	<b>110.23</b>	<b>66.14</b>	<b>97.07</b>

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

\*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.

**PASCO COUNTY UTILITIES - SOLID WASTE**

TONNAGE SUMMARY - 2008

Quarter Ending June 30, 2009

West Pasco Class I Tonnage

MATERIAL	APRIL	MAY	JUNE
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	7,662.90	7,428.22	7,840.18
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	200.87	47.32	0.00
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>7,863.77</b>	<b>7,475.54</b>	<b>7,840.18</b>
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>7,863.77</b>	<b>7,475.54</b>	<b>7,840.18</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	<b>7,662.90</b>	<b>7,428.22</b>	<b>7,840.18</b>
<b>SOLID WASTE CELL</b>	<b>200.87</b>	<b>47.32</b>	<b>0.00</b>

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

\*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.

**PASCO COUNTY UTILITIES - SOLID WASTE**

**TONNAGE SUMMARY - 2009**

Quarter Ending September 30, 2009

MATERIAL	West Pasco Class I Tonnage		
	JULY	AUGUST	SEPTEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	5,920.28	7,131.12	7,141.74
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	17.22	21.30	0.00
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>5,937.50</b>	<b>7,152.42</b>	<b>7,141.74</b>
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>5,937.50</b>	<b>7,152.42</b>	<b>7,141.74</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	<b>5,920.28</b>	<b>7,131.12</b>	<b>7,141.74</b>
<b>SOLID WASTE CELL</b>	<b>17.22</b>	<b>21.30</b>	<b>0.00</b>

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

\*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.

**PASCO COUNTY UTILITIES - SOLID WASTE**

TONNAGE SUMMARY - 2010 FY

Quarter Ending December 31, 2009

West Pasco Class I Tonnage

MATERIAL	OCTOBER	NOVEMBER	DECEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	4,986.25	5,685.49	8,889.75
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	33.48	230.69	1,147.67
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>5,019.73</b>	<b>5,916.18</b>	<b>10,037.42</b>
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>5,019.73</b>	<b>5,916.18</b>	<b>10,037.42</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	<b>4,986.25</b>	<b>5,685.49</b>	<b>8,889.75</b>
<b>SOLID WASTE CELL</b>	<b>33.48</b>	<b>230.69</b>	<b>1,147.67</b>

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

\*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.

**PASCO COUNTY UTILITIES - SOLID WASTE**

TONNAGE SUMMARY - 2010 FY

Quarter Ending March 31, 2010

MATERIAL	West Pasco Class I Tonnage		
	JANUARY	FEBRUARY	MARCH
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	6,716.77	6,700.33	7,149.46
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	2.91	0.00	1.27
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>6,719.68</b>	<b>6,700.33</b>	<b>7,150.73</b>
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>6,719.68</b>	<b>6,700.33</b>	<b>7,150.73</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	<b>6,716.77</b>	<b>6,700.33</b>	<b>7,149.46</b>
<b>SOLID WASTE CELL</b>	<b>2.91</b>	<b>0.00</b>	<b>1.27</b>

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch.

\*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.

**PASCO COUNTY UTILITIES - SOLID WASTE**  
**TONNAGE SUMMARY - 2010 FY**  
 Quarter Ending June 30, 2010

West Pasco Class I Tonnage

MATERIAL	APRIL	MAY	JUNE
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	4,223.04	9,038.49	7,315.29
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	62.51	54.35	93.44
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>4,285.55</b>	<b>9,092.84</b>	<b>7,408.73</b>
LESS: Yard Trash Stored/to WTE	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>4,285.55</b>	<b>9,092.84</b>	<b>7,408.73</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @</b>			
<b>Transfer Station</b>			
<b>ASH CELL **</b>	<b>4,223.04</b>	<b>9,038.49</b>	<b>7,315.29</b>
<b>SOLID WASTE CELL</b>	<b>62.51</b>	<b>54.35</b>	<b>93.44</b>

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

\*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.

**PASCO COUNTY UTILITIES - SOLID WASTE**

**TONNAGE SUMMARY - 2010 FY**

Quarter Ending September 30, 2010

West Pasco Class I Tonnage

MATERIAL	JULY	AUGUST	SEPTEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	7,407.31	7,295.74	7,326.15
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	41.56	134.02	137.44
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>7,448.87</b>	<b>7,429.76</b>	<b>7,463.59</b>
LESS: Yard Trash Stored/to WTE	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscape/Cover	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>7,448.87</b>	<b>7,429.76</b>	<b>7,463.59</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	7,407.31	7,295.74	7,326.15
<b>SOLID WASTE CEL</b>	41.56	134.02	137.44

@@ = Yard Waste is Mulched and Provided to the residents Free o  
 \*\* = Ash Residue is the only Material Disposed of in the Ash Landfill.



**PASCO COUNTY UTILITIES - SOLID WASTE**

TONNAGE SUMMARY - FY 2011

Quarter Ending December 31, 2010

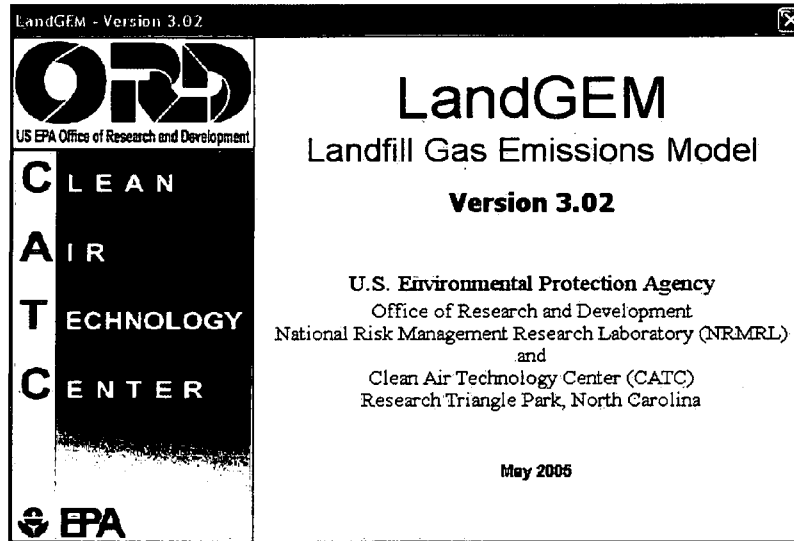
MATERIAL	West Pasco Class I Tonnage		
	OCTOBER	NOVEMBER	DECEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	4,160.13	7,310.48	8,022.12
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	47.54	87.91	41.53
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
<b>Total Tonnage Weighted IN</b>	<b>4,207.67</b>	<b>7,398.39</b>	<b>8,063.65</b>
LESS: Yard Trash Stored/to WTE	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscape/Cover	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
<b>Total Tonnage Landfilled</b>	<b>4,207.67</b>	<b>7,398.39</b>	<b>8,063.65</b>
<b>Total Tonnage Processed by WTE</b>			
<b>Total Tonnage Received @ Transfer Station</b>			
<b>ASH CELL **</b>	<b>4,160.13</b>	<b>7,310.48</b>	<b>8,022.12</b>
<b>SOLID WASTE (</b>	<b>47.54</b>	<b>87.91</b>	<b>41.53</b>

@@ = Yard Waste is Mulched and Provided to the residents Fr  
 \*\* = Ash Residue is the only Material Disposed of in the Ash Lar

Attachment-2

NMOC Emission Estimate (2010) -

USEPA LandGEM version 3.02



## Summary Report

**Landfill Name or Identifier:** Pasco County - Spring Hill, Florida

**Date:** Wednesday, April 27, 2011

### Description/Comments:

### About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^n \sum_{j=0.1}^1 kL_o \left( \frac{M_i}{10} \right) e^{-kt_{ij}}$$

Where,

$Q_{CH_4}$  = annual methane generation in the year of the calculation ( $m^3/year$ )

$i$  = 1-year time increment

$n$  = (year of the calculation) - (initial year of waste acceptance)

$j$  = 0.1-year time increment

$k$  = methane generation rate ( $year^{-1}$ )

$L_o$  = potential methane generation capacity ( $m^3/Ma$ )

$M_i$  = mass of waste accepted in the  $i^{th}$  year ( $Ma$ )

$t_{ij}$  = age of the  $j^{th}$  section of waste mass  $M_i$  accepted in the  $i^{th}$  year  
(decimal years . e.g. 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at <http://www.epa.gov/ttnatw01/landfill/landfpg.html>.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for conventional landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

**Input Review**

**LANDFILL CHARACTERISTICS**

Landfill Open Year **1991**  
 Landfill Closure Year (with 80-year limit) **2011**  
 Actual Closure Year (without limit) **2011**  
 Have Model Calculate Closure Year? **No**  
 Waste Design Capacity **839,360** short tons

**MODEL PARAMETERS**

Methane Generation Rate, k **0.050** year<sup>-1</sup>  
 Potential Methane Generation Capacity, L<sub>0</sub> **170** m<sup>3</sup>/Mg  
 NMOC Concentration **36** ppmv as hexane  
 Methane Content **50** % by volume

**GASES / POLLUTANTS SELECTED**

Gas / Pollutant #1: **Total landfill gas**  
 Gas / Pollutant #2: **NMOC**  
 Gas / Pollutant #3: **Methane**  
 Gas / Pollutant #4: **Carbon dioxide**

**WASTE ACCEPTANCE RATES**

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	(short tons/year)	(Mg)	(short tons)
1991	0	0	0	0
1992	0	0	0	0
1993	0	0	0	0
1994	0	0	0	0
1995	0	0	0	0
1996	0	0	0	0
1997	4,925	5,418	0	0
1998	11,875	13,062	4,925	5,418
1999	18,616	20,478	16,800	18,480
2000	25,291	27,820	35,416	38,958
2001	12,600	13,860	60,707	66,778
2002	11,789	12,968	73,307	80,638
2003	64	70	85,096	93,605
2004	17,640	19,404	85,160	93,676
2005	47,629	52,392	102,799	113,079
2006	55,039	60,543	150,428	165,471
2007	32,083	35,291	205,467	226,014
2008	4,886	5,374	237,550	261,305
2009	1,793	1,972	242,436	266,679
2010	640	704	244,228	268,651
2011	0	0	244,869	269,356
2012	0	0	244,869	269,356
2013	0	0	244,869	269,356
2014	0	0	244,869	269,356
2015	0	0	244,869	269,356
2016	0	0	244,869	269,356
2017	0	0	244,869	269,356
2018	0	0	244,869	269,356
2019	0	0	244,869	269,356
2020	0	0	244,869	269,356
2021	0	0	244,869	269,356
2022	0	0	244,869	269,356
2023	0	0	244,869	269,356
2024	0	0	244,869	269,356
2025	0	0	244,869	269,356
2026	0	0	244,869	269,356
2027	0	0	244,869	269,356
2028	0	0	244,869	269,356
2029	0	0	244,869	269,356
2030	0	0	244,869	269,356

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	(short tons/year)	(Mg)	(short tons)
2031	0	0	244,869	269,356
2032	0	0	244,869	269,356
2033	0	0	244,869	269,356
2034	0	0	244,869	269,356
2035	0	0	244,869	269,356
2036	0	0	244,869	269,356
2037	0	0	244,869	269,356
2038	0	0	244,869	269,356
2039	0	0	244,869	269,356
2040	0	0	244,869	269,356
2041	0	0	244,869	269,356
2042	0	0	244,869	269,356
2043	0	0	244,869	269,356
2044	0	0	244,869	269,356
2045	0	0	244,869	269,356
2046	0	0	244,869	269,356
2047	0	0	244,869	269,356
2048	0	0	244,869	269,356
2049	0	0	244,869	269,356
2050	0	0	244,869	269,356
2051	0	0	244,869	269,356
2052	0	0	244,869	269,356
2053	0	0	244,869	269,356
2054	0	0	244,869	269,356
2055	0	0	244,869	269,356
2056	0	0	244,869	269,356
2057	0	0	244,869	269,356
2058	0	0	244,869	269,356
2059	0	0	244,869	269,356
2060	0	0	244,869	269,356
2061	0	0	244,869	269,356
2062	0	0	244,869	269,356
2063	0	0	244,869	269,356
2064	0	0	244,869	269,356
2065	0	0	244,869	269,356
2066	0	0	244,869	269,356
2067	0	0	244,869	269,356
2068	0	0	244,869	269,356
2069	0	0	244,869	269,356
2070	0	0	244,869	269,356

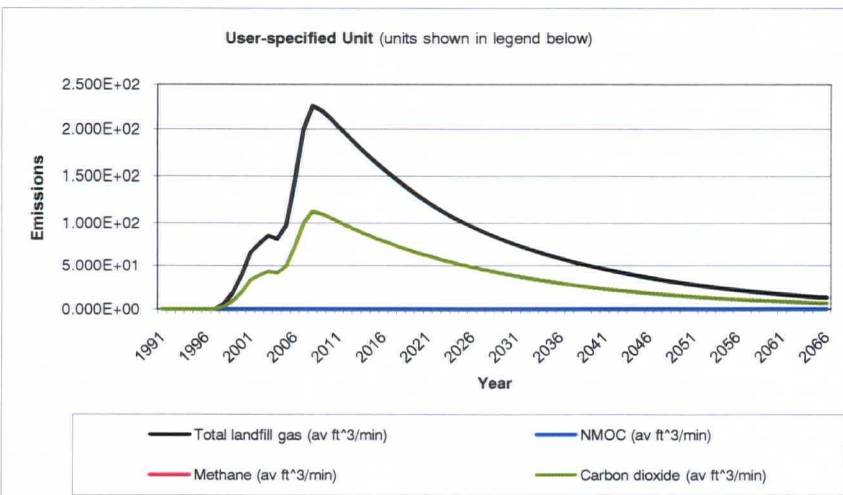
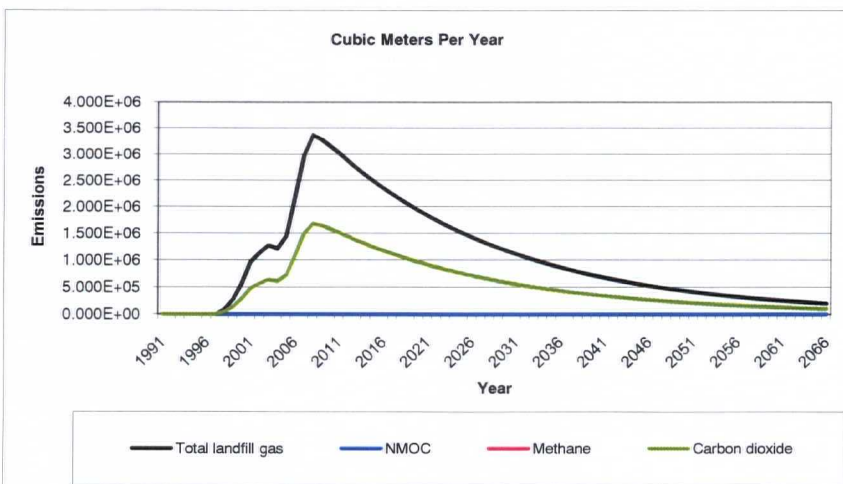
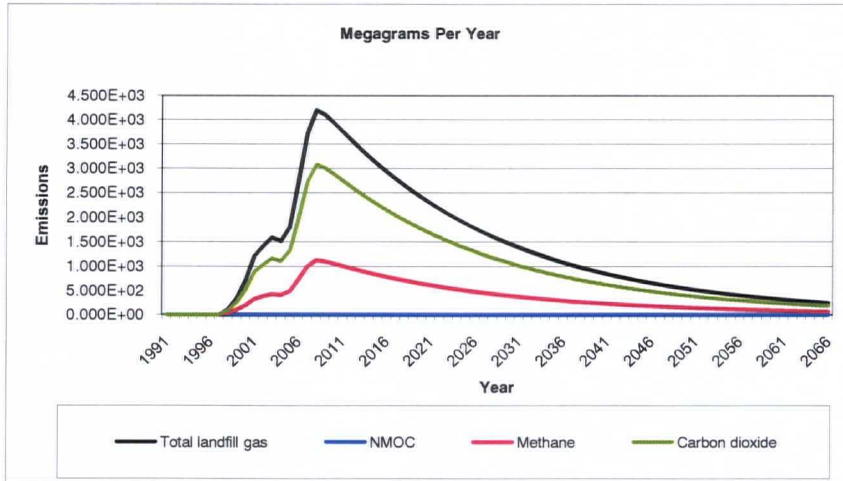
**Pollutant Parameters**

<b>Gas / Pollutant Default Parameters:</b>				<b>User-specified Pollutant Parameters:</b>	
	Compound	Concentration (ppmv)	Molecular Weight	Concentration (ppmv)	Molecular Weight
<b>Gases</b>	Total landfill gas		0.00		
	Methane		16.04		
	Carbon dioxide		44.01		
	NMOC	4,000	86.18		
<b>Pollutants</b>	1,1,1-Trichloroethane (methyl chloroform) - HAP	0.48	133.41		
	1,1,2,2- Tetrachloroethane - HAP/VOC	1.1	167.85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2.4	98.97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0.20	96.94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0.41	98.96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0.18	112.99		
	2-Propanol (isopropyl alcohol) - VOC	50	60.11		
	Acetone	7.0	58.08		
	Acrylonitrile - HAP/VOC	6.3	53.06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1.9	78.11		
	Benzene - Co-disposal - HAP/VOC	11	78.11		
	Bromodichloromethane - VOC	3.1	163.83		
	Butane - VOC	5.0	58.12		
	Carbon disulfide - HAP/VOC	0.58	76.13		
	Carbon monoxide	140	28.01		
	Carbon tetrachloride - HAP/VOC	4.0E-03	153.84		
	Carbonyl sulfide - HAP/VOC	0.49	60.07		
	Chlorobenzene - HAP/VOC	0.25	112.56		
	Chlorodifluoromethane	1.3	86.47		
	Chloroethane (ethyl chloride) - HAP/VOC	1.3	64.52		
	Chloroform - HAP/VOC	0.03	119.39		
	Chloromethane - VOC	1.2	50.49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0.21	147		
	Dichlorodifluoromethane	16	120.91		
	Dichlorofluoromethane - VOC	2.6	102.92		
	Dichloromethane (methylene chloride) - HAP	14	84.94		
	Dimethyl sulfide (methyl sulfide) - VOC	7.8	62.13		
	Ethane	890	30.07		
	Ethanol - VOC	27	46.08		

**Pollutant Parameters (Continued)**

<i>Gas / Pollutant Default Parameters:</i>				<i>User-specified Pollutant Parameters:</i>	
	Compound	Concentration (ppmv)	Molecular Weight	Concentration (ppmv)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2.3	62.13		
	Ethylbenzene - HAP/VOC	4.6	106.16		
	Ethylene dibromide - HAP/VOC	1.0E-03	187.88		
	Fluorotrichloromethane - VOC	0.76	137.38		
	Hexane - HAP/VOC	6.6	86.18		
	Hydrogen sulfide	36	34.08		
	Mercury (total) - HAP	2.9E-04	200.61		
	Methyl ethyl ketone - HAP/VOC	7.1	72.11		
	Methyl isobutyl ketone - HAP/VOC	1.9	100.16		
	Methyl mercaptan - VOC	2.5	48.11		
	Pentane - VOC	3.3	72.15		
	Perchloroethylene (tetrachloroethylene) - HAP	3.7	165.83		
	Propane - VOC	11	44.09		
	t-1,2-Dichloroethene - VOC	2.8	96.94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92.13		
	Toluene - Co-disposal - HAP/VOC	170	92.13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2.8	131.40		
	Vinyl chloride - HAP/VOC	7.3	62.50		
	Xylenes - HAP/VOC	12	106.16		

**Graphs**





**Results**

Year	Total landfill gas			NMOC		
	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)
1991	0	0	0	0	0	0
1992	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1993	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1994	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1995	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1996	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1997	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1998	1.022E+02	8.188E+04	5.501E+00	1.045E-02	2.915E+00	1.958E-04
1999	3.438E+02	2.753E+05	1.850E+01	3.513E-02	9.800E+00	6.585E-04
2000	7.135E+02	5.713E+05	3.839E+01	7.291E-02	2.034E+01	1.367E-03
2001	1.204E+03	9.639E+05	6.476E+01	1.230E-01	3.431E+01	2.306E-03
2002	1.407E+03	1.126E+06	7.568E+01	1.437E-01	4.010E+01	2.694E-03
2003	1.583E+03	1.267E+06	8.515E+01	1.617E-01	4.512E+01	3.031E-03
2004	1.507E+03	1.207E+06	8.107E+01	1.540E-01	4.296E+01	2.886E-03
2005	1.800E+03	1.441E+06	9.682E+01	1.839E-01	5.130E+01	3.447E-03
2006	2.701E+03	2.162E+06	1.453E+02	2.759E-01	7.698E+01	5.173E-03
2007	3.711E+03	2.972E+06	1.997E+02	3.792E-01	1.058E+02	7.109E-03
2008	4.196E+03	3.360E+06	2.258E+02	4.288E-01	1.196E+02	8.038E-03
2009	4.093E+03	3.278E+06	2.202E+02	4.183E-01	1.167E+02	7.840E-03
2010	3.931E+03	3.148E+06	2.115E+02	4.017E-01	1.121E+02	7.529E-03
2011	3.752E+03	3.005E+06	2.019E+02	3.834E-01	1.070E+02	7.187E-03
2012	3.569E+03	2.858E+06	1.920E+02	3.647E-01	1.018E+02	6.837E-03
2013	3.395E+03	2.719E+06	1.827E+02	3.469E-01	9.679E+01	6.503E-03
2014	3.230E+03	2.586E+06	1.738E+02	3.300E-01	9.207E+01	6.186E-03
2015	3.072E+03	2.460E+06	1.653E+02	3.139E-01	8.758E+01	5.884E-03
2016	2.922E+03	2.340E+06	1.572E+02	2.986E-01	8.331E+01	5.597E-03
2017	2.780E+03	2.226E+06	1.496E+02	2.841E-01	7.924E+01	5.324E-03
2018	2.644E+03	2.117E+06	1.423E+02	2.702E-01	7.538E+01	5.065E-03
2019	2.515E+03	2.014E+06	1.353E+02	2.570E-01	7.170E+01	4.818E-03
2020	2.393E+03	1.916E+06	1.287E+02	2.445E-01	6.821E+01	4.583E-03
2021	2.276E+03	1.822E+06	1.225E+02	2.326E-01	6.488E+01	4.359E-03
2022	2.165E+03	1.734E+06	1.165E+02	2.212E-01	6.172E+01	4.147E-03
2023	2.059E+03	1.649E+06	1.108E+02	2.104E-01	5.871E+01	3.944E-03
2024	1.959E+03	1.569E+06	1.054E+02	2.002E-01	5.584E+01	3.752E-03
2025	1.863E+03	1.492E+06	1.003E+02	1.904E-01	5.312E+01	3.569E-03
2026	1.773E+03	1.419E+06	9.537E+01	1.811E-01	5.053E+01	3.395E-03
2027	1.686E+03	1.350E+06	9.071E+01	1.723E-01	4.806E+01	3.229E-03
2028	1.604E+03	1.284E+06	8.629E+01	1.639E-01	4.572E+01	3.072E-03
2029	1.526E+03	1.222E+06	8.208E+01	1.559E-01	4.349E+01	2.922E-03
2030	1.451E+03	1.162E+06	7.808E+01	1.483E-01	4.137E+01	2.780E-03
2031	1.380E+03	1.105E+06	7.427E+01	1.411E-01	3.935E+01	2.644E-03
2032	1.313E+03	1.051E+06	7.065E+01	1.342E-01	3.743E+01	2.515E-03
2033	1.249E+03	1.000E+06	6.720E+01	1.276E-01	3.561E+01	2.392E-03
2034	1.188E+03	9.514E+05	6.393E+01	1.214E-01	3.387E+01	2.276E-03
2035	1.130E+03	9.050E+05	6.081E+01	1.155E-01	3.222E+01	2.165E-03
2036	1.075E+03	8.609E+05	5.784E+01	1.099E-01	3.065E+01	2.059E-03
2037	1.023E+03	8.189E+05	5.502E+01	1.045E-01	2.915E+01	1.959E-03
2038	9.728E+02	7.790E+05	5.234E+01	9.940E-02	2.773E+01	1.863E-03
2039	9.253E+02	7.410E+05	4.979E+01	9.455E-02	2.638E+01	1.772E-03
2040	8.802E+02	7.048E+05	4.736E+01	8.994E-02	2.509E+01	1.686E-03

**Results (Continued)**

Year	Total landfill gas			NMOC		
	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)
2041	8.373E+02	6.705E+05	4.505E+01	8.555E-02	2.387E+01	1.604E-03
2042	7.964E+02	6.378E+05	4.285E+01	8.138E-02	2.270E+01	1.525E-03
2043	7.576E+02	6.066E+05	4.076E+01	7.741E-02	2.160E+01	1.451E-03
2044	7.206E+02	5.771E+05	3.877E+01	7.364E-02	2.054E+01	1.380E-03
2045	6.855E+02	5.489E+05	3.688E+01	7.005E-02	1.954E+01	1.313E-03
2046	6.521E+02	5.221E+05	3.508E+01	6.663E-02	1.859E+01	1.249E-03
2047	6.203E+02	4.967E+05	3.337E+01	6.338E-02	1.768E+01	1.188E-03
2048	5.900E+02	4.725E+05	3.174E+01	6.029E-02	1.682E+01	1.130E-03
2049	5.612E+02	4.494E+05	3.020E+01	5.735E-02	1.600E+01	1.075E-03
2050	5.339E+02	4.275E+05	2.872E+01	5.455E-02	1.522E+01	1.023E-03
2051	5.078E+02	4.066E+05	2.732E+01	5.189E-02	1.448E+01	9.727E-04
2052	4.831E+02	3.868E+05	2.599E+01	4.936E-02	1.377E+01	9.252E-04
2053	4.595E+02	3.680E+05	2.472E+01	4.695E-02	1.310E+01	8.801E-04
2054	4.371E+02	3.500E+05	2.352E+01	4.466E-02	1.246E+01	8.372E-04
2055	4.158E+02	3.329E+05	2.237E+01	4.248E-02	1.185E+01	7.964E-04
2056	3.955E+02	3.167E+05	2.128E+01	4.041E-02	1.127E+01	7.575E-04
2057	3.762E+02	3.013E+05	2.024E+01	3.844E-02	1.072E+01	7.206E-04
2058	3.579E+02	2.866E+05	1.925E+01	3.657E-02	1.020E+01	6.854E-04
2059	3.404E+02	2.726E+05	1.831E+01	3.478E-02	9.704E+00	6.520E-04
2060	3.238E+02	2.593E+05	1.742E+01	3.309E-02	9.231E+00	6.202E-04
2061	3.080E+02	2.466E+05	1.657E+01	3.147E-02	8.781E+00	5.900E-04
2062	2.930E+02	2.346E+05	1.576E+01	2.994E-02	8.352E+00	5.612E-04
2063	2.787E+02	2.232E+05	1.500E+01	2.848E-02	7.945E+00	5.338E-04
2064	2.651E+02	2.123E+05	1.426E+01	2.709E-02	7.558E+00	5.078E-04
2065	2.522E+02	2.019E+05	1.357E+01	2.577E-02	7.189E+00	4.830E-04
2066	2.399E+02	1.921E+05	1.291E+01	2.451E-02	6.838E+00	4.595E-04
2067	2.282E+02	1.827E+05	1.228E+01	2.332E-02	6.505E+00	4.371E-04
2068	2.171E+02	1.738E+05	1.168E+01	2.218E-02	6.188E+00	4.157E-04
2069	2.065E+02	1.653E+05	1.111E+01	2.110E-02	5.886E+00	3.955E-04
2070	1.964E+02	1.573E+05	1.057E+01	2.007E-02	5.599E+00	3.762E-04
2071	1.868E+02	1.496E+05	1.005E+01	1.909E-02	5.326E+00	3.578E-04
2072	1.777E+02	1.423E+05	9.561E+00	1.816E-02	5.066E+00	3.404E-04
2073	1.690E+02	1.354E+05	9.095E+00	1.727E-02	4.819E+00	3.238E-04
2074	1.608E+02	1.288E+05	8.651E+00	1.643E-02	4.584E+00	3.080E-04
2075	1.530E+02	1.225E+05	8.229E+00	1.563E-02	4.360E+00	2.930E-04
2076	1.455E+02	1.165E+05	7.828E+00	1.487E-02	4.148E+00	2.787E-04
2077	1.384E+02	1.108E+05	7.446E+00	1.414E-02	3.945E+00	2.651E-04
2078	1.317E+02	1.054E+05	7.083E+00	1.345E-02	3.753E+00	2.522E-04
2079	1.252E+02	1.003E+05	6.738E+00	1.280E-02	3.570E+00	2.399E-04
2080	1.191E+02	9.539E+04	6.409E+00	1.217E-02	3.396E+00	2.282E-04
2081	1.133E+02	9.074E+04	6.097E+00	1.158E-02	3.230E+00	2.170E-04
2082	1.078E+02	8.631E+04	5.799E+00	1.101E-02	3.073E+00	2.065E-04
2083	1.025E+02	8.210E+04	5.516E+00	1.048E-02	2.923E+00	1.964E-04
2084	9.753E+01	7.810E+04	5.247E+00	9.966E-03	2.780E+00	1.868E-04
2085	9.277E+01	7.429E+04	4.991E+00	9.480E-03	2.645E+00	1.777E-04
2086	8.825E+01	7.066E+04	4.748E+00	9.017E-03	2.516E+00	1.690E-04
2087	8.394E+01	6.722E+04	4.516E+00	8.578E-03	2.393E+00	1.608E-04
2088	7.985E+01	6.394E+04	4.296E+00	8.159E-03	2.276E+00	1.529E-04
2089	7.596E+01	6.082E+04	4.087E+00	7.761E-03	2.165E+00	1.455E-04
2090	7.225E+01	5.786E+04	3.887E+00	7.383E-03	2.060E+00	1.384E-04
2091	6.873E+01	5.503E+04	3.698E+00	7.023E-03	1.959E+00	1.316E-04

**Results (Continued)**

Year	Total landfill gas			NMOC		
	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)
2092	6.538E+01	5.235E+04	3.517E+00	6.680E-03	1.864E+00	1.252E-04
2093	6.219E+01	4.980E+04	3.346E+00	6.354E-03	1.773E+00	1.191E-04
2094	5.915E+01	4.737E+04	3.183E+00	6.045E-03	1.686E+00	1.133E-04
2095	5.627E+01	4.506E+04	3.027E+00	5.750E-03	1.604E+00	1.078E-04
2096	5.353E+01	4.286E+04	2.880E+00	5.469E-03	1.526E+00	1.025E-04
2097	5.091E+01	4.077E+04	2.739E+00	5.203E-03	1.451E+00	9.752E-05
2098	4.843E+01	3.878E+04	2.606E+00	4.949E-03	1.381E+00	9.276E-05
2099	4.607E+01	3.689E+04	2.479E+00	4.707E-03	1.313E+00	8.824E-05
2100	4.382E+01	3.509E+04	2.358E+00	4.478E-03	1.249E+00	8.394E-05
2101	4.169E+01	3.338E+04	2.243E+00	4.259E-03	1.188E+00	7.984E-05
2102	3.965E+01	3.175E+04	2.133E+00	4.052E-03	1.130E+00	7.595E-05
2103	3.772E+01	3.020E+04	2.029E+00	3.854E-03	1.075E+00	7.225E-05
2104	3.588E+01	2.873E+04	1.930E+00	3.666E-03	1.023E+00	6.872E-05
2105	3.413E+01	2.733E+04	1.836E+00	3.487E-03	9.729E-01	6.537E-05
2106	3.246E+01	2.600E+04	1.747E+00	3.317E-03	9.255E-01	6.218E-05
2107	3.088E+01	2.473E+04	1.661E+00	3.156E-03	8.803E-01	5.915E-05
2108	2.938E+01	2.352E+04	1.580E+00	3.002E-03	8.374E-01	5.626E-05
2109	2.794E+01	2.238E+04	1.503E+00	2.855E-03	7.966E-01	5.352E-05
2110	2.658E+01	2.128E+04	1.430E+00	2.716E-03	7.577E-01	5.091E-05
2111	2.528E+01	2.025E+04	1.360E+00	2.584E-03	7.208E-01	4.843E-05
2112	2.405E+01	1.926E+04	1.294E+00	2.458E-03	6.856E-01	4.607E-05
2113	2.288E+01	1.832E+04	1.231E+00	2.338E-03	6.522E-01	4.382E-05
2114	2.176E+01	1.743E+04	1.171E+00	2.224E-03	6.204E-01	4.168E-05
2115	2.070E+01	1.658E+04	1.114E+00	2.115E-03	5.901E-01	3.965E-05
2116	1.969E+01	1.577E+04	1.059E+00	2.012E-03	5.613E-01	3.772E-05
2117	1.873E+01	1.500E+04	1.008E+00	1.914E-03	5.339E-01	3.588E-05
2118	1.782E+01	1.427E+04	9.586E-01	1.821E-03	5.079E-01	3.413E-05
2119	1.695E+01	1.357E+04	9.118E-01	1.732E-03	4.831E-01	3.246E-05
2120	1.612E+01	1.291E+04	8.674E-01	1.647E-03	4.596E-01	3.088E-05
2121	1.534E+01	1.228E+04	8.251E-01	1.567E-03	4.372E-01	2.937E-05
2122	1.459E+01	1.168E+04	7.848E-01	1.491E-03	4.158E-01	2.794E-05
2123	1.388E+01	1.111E+04	7.466E-01	1.418E-03	3.956E-01	2.658E-05
2124	1.320E+01	1.057E+04	7.101E-01	1.349E-03	3.763E-01	2.528E-05
2125	1.256E+01	1.005E+04	6.755E-01	1.283E-03	3.579E-01	2.405E-05
2126	1.194E+01	9.563E+03	6.426E-01	1.220E-03	3.405E-01	2.288E-05
2127	1.136E+01	9.097E+03	6.112E-01	1.161E-03	3.239E-01	2.176E-05
2128	1.081E+01	8.653E+03	5.814E-01	1.104E-03	3.081E-01	2.070E-05
2129	1.028E+01	8.231E+03	5.531E-01	1.050E-03	2.930E-01	1.969E-05
2130	9.778E+00	7.830E+03	5.261E-01	9.992E-04	2.787E-01	1.873E-05
2131	9.301E+00	7.448E+03	5.004E-01	9.504E-04	2.652E-01	1.782E-05

**Results (Continued)**

Year	Methane			Carbon dioxide		
	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)
1991	0	0	0	0	0	0
1992	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1993	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1994	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1995	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1996	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1997	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1998	2.731E+01	4.094E+04	2.751E+00	7.494E+01	4.094E+04	2.751E+00
1999	9.183E+01	1.376E+05	9.248E+00	2.520E+02	1.376E+05	9.248E+00
2000	1.906E+02	2.857E+05	1.919E+01	5.229E+02	2.857E+05	1.919E+01
2001	3.215E+02	4.819E+05	3.238E+01	8.822E+02	4.819E+05	3.238E+01
2002	3.757E+02	5.632E+05	3.784E+01	1.031E+03	5.632E+05	3.784E+01
2003	4.228E+02	6.337E+05	4.258E+01	1.160E+03	6.337E+05	4.258E+01
2004	4.025E+02	6.033E+05	4.054E+01	1.104E+03	6.033E+05	4.054E+01
2005	4.807E+02	7.205E+05	4.841E+01	1.319E+03	7.205E+05	4.841E+01
2006	7.213E+02	1.081E+06	7.265E+01	1.979E+03	1.081E+06	7.265E+01
2007	9.914E+02	1.486E+06	9.984E+01	2.720E+03	1.486E+06	9.984E+01
2008	1.121E+03	1.680E+06	1.129E+02	3.076E+03	1.680E+06	1.129E+02
2009	1.093E+03	1.639E+06	1.101E+02	3.000E+03	1.639E+06	1.101E+02
2010	1.050E+03	1.574E+06	1.057E+02	2.881E+03	1.574E+06	1.057E+02
2011	1.002E+03	1.502E+06	1.009E+02	2.750E+03	1.502E+06	1.009E+02
2012	9.534E+02	1.429E+06	9.602E+01	2.616E+03	1.429E+06	9.602E+01
2013	9.069E+02	1.359E+06	9.134E+01	2.488E+03	1.359E+06	9.134E+01
2014	8.627E+02	1.293E+06	8.688E+01	2.367E+03	1.293E+06	8.688E+01
2015	8.206E+02	1.230E+06	8.265E+01	2.252E+03	1.230E+06	8.265E+01
2016	7.806E+02	1.170E+06	7.862E+01	2.142E+03	1.170E+06	7.862E+01
2017	7.425E+02	1.113E+06	7.478E+01	2.037E+03	1.113E+06	7.478E+01
2018	7.063E+02	1.059E+06	7.113E+01	1.938E+03	1.059E+06	7.113E+01
2019	6.719E+02	1.007E+06	6.767E+01	1.843E+03	1.007E+06	6.767E+01
2020	6.391E+02	9.580E+05	6.437E+01	1.754E+03	9.580E+05	6.437E+01
2021	6.079E+02	9.112E+05	6.123E+01	1.668E+03	9.112E+05	6.123E+01
2022	5.783E+02	8.668E+05	5.824E+01	1.587E+03	8.668E+05	5.824E+01
2023	5.501E+02	8.245E+05	5.540E+01	1.509E+03	8.245E+05	5.540E+01
2024	5.233E+02	7.843E+05	5.270E+01	1.436E+03	7.843E+05	5.270E+01
2025	4.977E+02	7.461E+05	5.013E+01	1.366E+03	7.461E+05	5.013E+01
2026	4.735E+02	7.097E+05	4.768E+01	1.299E+03	7.097E+05	4.768E+01
2027	4.504E+02	6.751E+05	4.536E+01	1.236E+03	6.751E+05	4.536E+01
2028	4.284E+02	6.421E+05	4.315E+01	1.175E+03	6.421E+05	4.315E+01
2029	4.075E+02	6.108E+05	4.104E+01	1.118E+03	6.108E+05	4.104E+01
2030	3.876E+02	5.810E+05	3.904E+01	1.064E+03	5.810E+05	3.904E+01
2031	3.687E+02	5.527E+05	3.714E+01	1.012E+03	5.527E+05	3.714E+01
2032	3.507E+02	5.257E+05	3.532E+01	9.624E+02	5.257E+05	3.532E+01
2033	3.336E+02	5.001E+05	3.360E+01	9.154E+02	5.001E+05	3.360E+01
2034	3.174E+02	4.757E+05	3.196E+01	8.708E+02	4.757E+05	3.196E+01
2035	3.019E+02	4.525E+05	3.040E+01	8.283E+02	4.525E+05	3.040E+01
2036	2.872E+02	4.304E+05	2.892E+01	7.879E+02	4.304E+05	2.892E+01
2037	2.732E+02	4.094E+05	2.751E+01	7.495E+02	4.094E+05	2.751E+01
2038	2.598E+02	3.895E+05	2.617E+01	7.129E+02	3.895E+05	2.617E+01
2039	2.472E+02	3.705E+05	2.489E+01	6.782E+02	3.705E+05	2.489E+01
2040	2.351E+02	3.524E+05	2.368E+01	6.451E+02	3.524E+05	2.368E+01

**Results (Continued)**

Year	Methane			Carbon dioxide		
	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)
2041	2.236E+02	3.352E+05	2.252E+01	6.136E+02	3.352E+05	2.252E+01
2042	2.127E+02	3.189E+05	2.143E+01	5.837E+02	3.189E+05	2.143E+01
2043	2.024E+02	3.033E+05	2.038E+01	5.552E+02	3.033E+05	2.038E+01
2044	1.925E+02	2.885E+05	1.939E+01	5.282E+02	2.885E+05	1.939E+01
2045	1.831E+02	2.745E+05	1.844E+01	5.024E+02	2.745E+05	1.844E+01
2046	1.742E+02	2.611E+05	1.754E+01	4.779E+02	2.611E+05	1.754E+01
2047	1.657E+02	2.483E+05	1.669E+01	4.546E+02	2.483E+05	1.669E+01
2048	1.576E+02	2.362E+05	1.587E+01	4.324E+02	2.362E+05	1.587E+01
2049	1.499E+02	2.247E+05	1.510E+01	4.113E+02	2.247E+05	1.510E+01
2050	1.426E+02	2.137E+05	1.436E+01	3.913E+02	2.137E+05	1.436E+01
2051	1.356E+02	2.033E+05	1.366E+01	3.722E+02	2.033E+05	1.366E+01
2052	1.290E+02	1.934E+05	1.300E+01	3.540E+02	1.934E+05	1.300E+01
2053	1.227E+02	1.840E+05	1.236E+01	3.368E+02	1.840E+05	1.236E+01
2054	1.168E+02	1.750E+05	1.176E+01	3.203E+02	1.750E+05	1.176E+01
2055	1.111E+02	1.665E+05	1.118E+01	3.047E+02	1.665E+05	1.118E+01
2056	1.056E+02	1.583E+05	1.064E+01	2.899E+02	1.583E+05	1.064E+01
2057	1.005E+02	1.506E+05	1.012E+01	2.757E+02	1.506E+05	1.012E+01
2058	9.559E+01	1.433E+05	9.627E+00	2.623E+02	1.433E+05	9.627E+00
2059	9.093E+01	1.363E+05	9.157E+00	2.495E+02	1.363E+05	9.157E+00
2060	8.649E+01	1.296E+05	8.711E+00	2.373E+02	1.296E+05	8.711E+00
2061	8.227E+01	1.233E+05	8.286E+00	2.257E+02	1.233E+05	8.286E+00
2062	7.826E+01	1.173E+05	7.882E+00	2.147E+02	1.173E+05	7.882E+00
2063	7.444E+01	1.116E+05	7.498E+00	2.043E+02	1.116E+05	7.498E+00
2064	7.081E+01	1.061E+05	7.132E+00	1.943E+02	1.061E+05	7.132E+00
2065	6.736E+01	1.010E+05	6.784E+00	1.848E+02	1.010E+05	6.784E+00
2066	6.408E+01	9.604E+04	6.453E+00	1.758E+02	9.604E+04	6.453E+00
2067	6.095E+01	9.136E+04	6.138E+00	1.672E+02	9.136E+04	6.138E+00
2068	5.798E+01	8.690E+04	5.839E+00	1.591E+02	8.690E+04	5.839E+00
2069	5.515E+01	8.267E+04	5.554E+00	1.513E+02	8.267E+04	5.554E+00
2070	5.246E+01	7.863E+04	5.283E+00	1.439E+02	7.863E+04	5.283E+00
2071	4.990E+01	7.480E+04	5.026E+00	1.369E+02	7.480E+04	5.026E+00
2072	4.747E+01	7.115E+04	4.781E+00	1.302E+02	7.115E+04	4.781E+00
2073	4.515E+01	6.768E+04	4.547E+00	1.239E+02	6.768E+04	4.547E+00
2074	4.295E+01	6.438E+04	4.326E+00	1.178E+02	6.438E+04	4.326E+00
2075	4.086E+01	6.124E+04	4.115E+00	1.121E+02	6.124E+04	4.115E+00
2076	3.886E+01	5.825E+04	3.914E+00	1.066E+02	5.825E+04	3.914E+00
2077	3.697E+01	5.541E+04	3.723E+00	1.014E+02	5.541E+04	3.723E+00
2078	3.517E+01	5.271E+04	3.542E+00	9.649E+01	5.271E+04	3.542E+00
2079	3.345E+01	5.014E+04	3.369E+00	9.178E+01	5.014E+04	3.369E+00
2080	3.182E+01	4.769E+04	3.205E+00	8.730E+01	4.769E+04	3.205E+00
2081	3.027E+01	4.537E+04	3.048E+00	8.305E+01	4.537E+04	3.048E+00
2082	2.879E+01	4.316E+04	2.900E+00	7.900E+01	4.316E+04	2.900E+00
2083	2.739E+01	4.105E+04	2.758E+00	7.514E+01	4.105E+04	2.758E+00
2084	2.605E+01	3.905E+04	2.624E+00	7.148E+01	3.905E+04	2.624E+00
2085	2.478E+01	3.714E+04	2.496E+00	6.799E+01	3.714E+04	2.496E+00
2086	2.357E+01	3.533E+04	2.374E+00	6.468E+01	3.533E+04	2.374E+00
2087	2.242E+01	3.361E+04	2.258E+00	6.152E+01	3.361E+04	2.258E+00
2088	2.133E+01	3.197E+04	2.148E+00	5.852E+01	3.197E+04	2.148E+00
2089	2.029E+01	3.041E+04	2.043E+00	5.567E+01	3.041E+04	2.043E+00
2090	1.930E+01	2.893E+04	1.944E+00	5.295E+01	2.893E+04	1.944E+00
2091	1.836E+01	2.752E+04	1.849E+00	5.037E+01	2.752E+04	1.849E+00

**Results (Continued)**

Year	Methane			Carbon dioxide		
	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)	(Mg/year)	(m <sup>3</sup> /year)	(av ft <sup>3</sup> /min)
2092	1.746E+01	2.617E+04	1.759E+00	4.791E+01	2.617E+04	1.759E+00
2093	1.661E+01	2.490E+04	1.673E+00	4.558E+01	2.490E+04	1.673E+00
2094	1.580E+01	2.368E+04	1.591E+00	4.335E+01	2.368E+04	1.591E+00
2095	1.503E+01	2.253E+04	1.514E+00	4.124E+01	2.253E+04	1.514E+00
2096	1.430E+01	2.143E+04	1.440E+00	3.923E+01	2.143E+04	1.440E+00
2097	1.360E+01	2.039E+04	1.370E+00	3.731E+01	2.039E+04	1.370E+00
2098	1.294E+01	1.939E+04	1.303E+00	3.549E+01	1.939E+04	1.303E+00
2099	1.231E+01	1.845E+04	1.239E+00	3.376E+01	1.845E+04	1.239E+00
2100	1.171E+01	1.755E+04	1.179E+00	3.212E+01	1.755E+04	1.179E+00
2101	1.113E+01	1.669E+04	1.121E+00	3.055E+01	1.669E+04	1.121E+00
2102	1.059E+01	1.588E+04	1.067E+00	2.906E+01	1.588E+04	1.067E+00
2103	1.008E+01	1.510E+04	1.015E+00	2.764E+01	1.510E+04	1.015E+00
2104	9.584E+00	1.437E+04	9.652E-01	2.630E+01	1.437E+04	9.652E-01
2105	9.116E+00	1.366E+04	9.181E-01	2.501E+01	1.366E+04	9.181E-01
2106	8.672E+00	1.300E+04	8.733E-01	2.379E+01	1.300E+04	8.733E-01
2107	8.249E+00	1.236E+04	8.307E-01	2.263E+01	1.236E+04	8.307E-01
2108	7.846E+00	1.176E+04	7.902E-01	2.153E+01	1.176E+04	7.902E-01
2109	7.464E+00	1.119E+04	7.517E-01	2.048E+01	1.119E+04	7.517E-01
2110	7.100E+00	1.064E+04	7.150E-01	1.948E+01	1.064E+04	7.150E-01
2111	6.753E+00	1.012E+04	6.802E-01	1.853E+01	1.012E+04	6.802E-01
2112	6.424E+00	9.629E+03	6.470E-01	1.763E+01	9.629E+03	6.470E-01
2113	6.111E+00	9.160E+03	6.154E-01	1.677E+01	9.160E+03	6.154E-01
2114	5.813E+00	8.713E+03	5.854E-01	1.595E+01	8.713E+03	5.854E-01
2115	5.529E+00	8.288E+03	5.569E-01	1.517E+01	8.288E+03	5.569E-01
2116	5.260E+00	7.884E+03	5.297E-01	1.443E+01	7.884E+03	5.297E-01
2117	5.003E+00	7.499E+03	5.039E-01	1.373E+01	7.499E+03	5.039E-01
2118	4.759E+00	7.134E+03	4.793E-01	1.306E+01	7.134E+03	4.793E-01
2119	4.527E+00	6.786E+03	4.559E-01	1.242E+01	6.786E+03	4.559E-01
2120	4.306E+00	6.455E+03	4.337E-01	1.182E+01	6.455E+03	4.337E-01
2121	4.096E+00	6.140E+03	4.125E-01	1.124E+01	6.140E+03	4.125E-01
2122	3.896E+00	5.840E+03	3.924E-01	1.069E+01	5.840E+03	3.924E-01
2123	3.706E+00	5.556E+03	3.733E-01	1.017E+01	5.556E+03	3.733E-01
2124	3.526E+00	5.285E+03	3.551E-01	9.674E+00	5.285E+03	3.551E-01
2125	3.354E+00	5.027E+03	3.378E-01	9.202E+00	5.027E+03	3.378E-01
2126	3.190E+00	4.782E+03	3.213E-01	8.753E+00	4.782E+03	3.213E-01
2127	3.035E+00	4.549E+03	3.056E-01	8.326E+00	4.549E+03	3.056E-01
2128	2.887E+00	4.327E+03	2.907E-01	7.920E+00	4.327E+03	2.907E-01
2129	2.746E+00	4.116E+03	2.765E-01	7.534E+00	4.116E+03	2.765E-01
2130	2.612E+00	3.915E+03	2.630E-01	7.166E+00	3.915E+03	2.630E-01
2131	2.484E+00	3.724E+03	2.502E-01	6.817E+00	3.724E+03	2.502E-01