MARION COUNTY
SOLID WASTE

APPENDIX "F"
PERMITS

BASELINE LANDFILL
TRANSFER STATION/CLOSED LOOP
RECYCLE SYSTEM
INDUSTRIAL WASTEWATER FACILITY
PERMIT #42-FLA349283

Issued: 10-08-2014
Expires: 10-05-2019

2015 STRATEGIC PLAN

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

CENTRAL DISTRICT
3319 MAGUIRE BOULEVARD, SUITE 232
ORLANDO, FLORIDA 32803

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

Sent via email: mike.sims@marioncountyfl.org

In the Matter of an
Application for Permit by:

Marion County Solids Waste Department
Dr. Lee A. Niblock, County Administrator
5601 Southeast 66th Street
Ocala, Florida 34480

File Number 42-FLA349283-003-IW9B
Marion County
Marion County Baseline Landfill
Transfer Station- Closed Loop Recycle System

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number 42-FLA349283 to operate the Marion County Baseline Landfill/Closed Loop Recycle System, issued under Chapter 403, Florida Statutes.

Monitoring requirements under this permit are effective on the first day of the second month following the effective date of the permit. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any.

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, within fourteen days of receipt of notice. 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, Florida Statutes. The petition must contain the information set forth below and must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Under Rule 62-110.106(4), Florida Administrative Code, a person may request an extension of the time for filing a petition for an administrative hearing. The request must be filed (received by the Clerk) in the Office of General Counsel before the end of the time period for filing a petition for an administrative hearing.

Petitions by the applicant or any of the persons listed below must be filed within fourteen days of receipt of this written notice. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), Florida Statutes, must be filed within fourteen days of publication of the notice or within fourteen days of receipt of the written notice, whichever occurs first. Section 120.60(3), Florida Statutes, however, also allows that any person who has asked the Department in writing 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 or request for an extension of time within fourteen days of receipt of notice shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, Florida Statutes. 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, Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information, as indicated in Rule 28-106.201, Florida Administrative Code:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; 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 determination;
(c) A statement of when and how the petitioner received notice of the Department's 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 Department's proposed action;
(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the Department'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 Department to take with respect to the Department's 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. 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.

Mediation under Section 120.573, Florida Statutes, is not available for this proceeding.

This permit action is final on the date filed with the Clerk of the Department unless a petition (or request for an extension of time) is filed in accordance with the above. Upon the timely filing of a petition (or request for an extension of time), this permit will not be effective until further order of the Department.

Any party to the permit has the right to seek judicial review of the permit action under Section 120.68, Florida Statutes, by the filing of a notice of appeal under Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, 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 30 days from the date when this permit action is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Christianne C. Ferraro

Christianne C. Ferraro, P.E.
Administrator
Water Permitting Program

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52, Florida Statutes, with the designated Deputy Clerk, receipt of which is hereby acknowledged.

March 25, 2014

[Clerk] **[Date]**

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies were emailed before close of business on March 25, 2014 to the listed persons, by _____.

Enclosures: Permit and Basis

Cc: Mike Hadlock, P.E. (via email: mhadlock@jonesedmunds.com)
Mickey Pollman, M.S. Project Manager (via email: mpollman@jonesedmunds.com)
Daniel Dooley (via email: daniel.dooley@flhealth.gov)
David Smicherko (DEP via email)
Shabbir Rizvi, Ph.D. (DEP via email)
Gene Elliott (DEP via email)

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
CENTRAL DISTRICT
3319 MAGUIRE BOULEVARD, SUITE 232
ORLANDO, FLORIDA 32803

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMITTEE:
Marion County Solid Waste Department

RESPONSIBLE OFFICIAL:
Dr. Lee A. Niblock
County Administrator
5601 Southeast 66th Street
Ocala, Florida 34480
(352) 671-8465

PERMIT NUMBER: 42-FLA349283
FILE NUMBER: 42-FLA349283-003-IW9B
EFFECTIVE DATE: October 6, 2014
EXPIRATION DATE: October 5, 2019

FACILITY:

Marion County Baseline Landfill Transfer Station-Closed Loop Recycle System
State Road 35 at Southeast 66th Street
Ocala, FL 34480-9501
Marion County
Latitude: 29°7' 25.6165" N Longitude: 82°3' 39.352" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.). This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. The above named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

FACILITY DESCRIPTION:

This permit authorizes the operation of an existing Industrial Wastewater treatment and reuse system to serve the referenced facility. Trucks and other equipment used at the landfill will be washed on a 50-foot by 25-foot covered concrete pad. The wastewater generated by this washing is collected in a sump. Flows are 25 gpm through the treatment system and the design capacity is 1,328 gpd.

WASTEWATER TREATMENT:

The sump is a 3-foot by 3-foot fiberglass in-ground basin, which overflows by gravity to a second tank. The second unit is a 3-foot by 9-foot fiberglass basin that is divided into sections by underflow baffles. The wastewater is pumped from this basin to a pre-manufactured treatment system. The system treats the wastewater using biological digestion, filtration and oil/water separation. The effluent is stored in a pressure tank for reuse. Filters are backwashed into the primary sump for the raw wastewater.

REUSE OR DISPOSAL:

There shall be no discharge from any part of this wastewater treatment and recycle system to the surface or ground waters of the State.

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions set forth in this Cover Sheet and Part I through Part IX on pages 1 through 11 of this permit.

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Other Limitations and Monitoring and Reporting Requirements

1. The permittee shall provide safe access points for authorized inspection and maintenance personnel as required by this permit. *[62-620.320(6)]*

2. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Central District Office at the address specified below:

   Florida Department of Environmental Protection
   Central District
   3319 Maguire Blvd
   Suite 232
   Orlando, Florida 32803-3767

   Phone Number - (407)897-4100
   FAX Number - (850)412-0467
   (All FAX copies and e-mails shall be followed by original copies.)

   [62-620.305]

3. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. *[62-620.305]*

II. SLUDGE MANAGEMENT REQUIREMENTS

A. RESIDUALS MANAGEMENT:

1. Solids and sludge from this system shall be recovered and disposed of at a Class I landfill site authorized by the Department to accept solid waste under Chapter 62-701, F.A.C. The permittee shall also submit, for Department approval, the intended course of action on the offsite disposal of these recovered solids.

2. On site application of solids (residuals/sludge) is not authorized. Spent wash water, used filters, grit and other waste solids shall be removed from the property for disposal at a DEP approved facility.

3. Waste oil removed from any treatment unit in this system shall be stored onsite in a separate waste oil tank. The stored waste oil shall be managed and ultimately disposed of by a licensed used oil recycler in accordance with the provisions of Chapter 62-710, F.A.C.

4. Should the party accepting waste oil or solids from the facility require a chemical analysis, then the permittee shall submit a copy of the analysis to the Department for evaluation.

5. The mixing of any waste product generated from this system with septage or domestic residuals is prohibited.

III. GROUND WATER REQUIREMENTS

1. Section III is not applicable to this facility.

IV. ADDITIONAL LAND APPLICATION REQUIREMENTS

1. Section IV is not applicable to this facility.

V. OPERATION AND MAINTENANCE REQUIREMENTS

1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control. *[62-620.320(6)]*

2. The permittee shall maintain the following records and make them available for inspection on the site of the permitted facility.

   a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

   b. Copies of all reports required by the permit for at least three years from the date the report was prepared;

   c. Records of all data, including reports and documents, used to complete the application for the permit for at least three years from the date the application was filed;

   d. A copy of the current permit;

   e. A copy of any required record drawings; and

   f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules.

   [62-620.350]

VI. SCHEDULES

1. The following improvement actions shall be completed according to the following schedule. The Best Management Practices (BMP) Plan shall be prepared and implemented in accordance with Part VII of this permit.

Improvement Action	Completion Date
1. Continue implementing the existing BMP Plan	Effective date of permit

[62-620.320(6)]

2. The permittee is not authorized to discharge to waters of the state after the expiration date of this permit, unless:

   a. The permittee has applied for renewal of this permit at least 180 days before the expiration date of this permit using the appropriate forms listed in Rule 62-620.910, F.A.C., and in the manner established in the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.; or

   b. The permittee has made complete the application for renewal of this permit before the permit expiration date.

   [62-620.335(1)-(4)]

VII. BEST MANAGEMENT PRACTICES/STORMWATER POLLUTION PREVENTION PLANS

1. The permittee shall during the term of this permit operate the facility in accordance with the existing Best Management Practices (BMP) or in accordance with subsequent amendments to the Plan. The permittee shall also amend this Plan, to incorporate practices to achieve the objectives and specific requirements listed below. The permittee shall maintain the Plan at the facility and shall make the plan available to the Department upon request. The Plan shall be implemented in accordance with the schedule contained in Part VI of this permit. *[62-620.100(3)(m)]*

2. Through implementation of the Best Management Practices (BMP), the permittee shall prevent or minimize the generation and the potential for the release of pollutants from the facility to the waters of the State through normal operations and ancillary activities. *[62-620.100(3)(m)]*

3. The permittee shall develop and amend the BMP Plan consistent with the following objectives for the control of pollutants.

   a. The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged at the facility shall be minimized by the permittee to the extent feasible by managing each influent waste stream in the most appropriate manner.

   b. Under the BMP Plan, and any Standard Operating Procedures (SOPs) included in the Plan, the permittee shall ensure proper operation and maintenance of the treatment facility.

   c. The permittee shall establish specific objectives for the control of pollutants by conducting the following evaluations.
      (1) Each facility component or system shall be examined for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to waters of the United States due to equipment failure, improper operation, and natural phenomena such as rain or adverse weather, etc. The examination shall include all normal operations and ancillary activities including but not limited to material storage areas, plant site runoff, in-plant transfer, process and material handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage, as applicable.
      (2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances to result in significant amounts of pollutants reaching surface waters, the program should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

   [62-620.100(3)(m)]

4. The BMP Plan shall be consistent with the objectives in Part 3 above and the general guidance contained in the publication entitled Guidance Manual for Developing Best Management Practices (BMPs) (USEPA, 1993) or any subsequent revisions to the guidance document. The BMP Plan shall:

   a. Be documented in narrative form, shall include any necessary plot plans, drawings or maps, and shall be developed in accordance with good engineering practices. The BMP Plan shall be organized and written with the following structure:
      (1) Name and location of the facility.
      (2) Statement of BMP Plan policy.
      (3) Structure, functions, and procedures of the BMP Plan committee.
      (4) Specific management practices and standard operating procedures to achieve the above objectives, including, but not limited to, the following:
         (a) modification of equipment, facilities, technology, processes, and procedures,
         (b) reformulation or redesign of products,
         (c) substitution of materials, and
         (d) improvement in management, inventory control, materials handling or general operational phases of the facility.

(5) Risk identification and assessment.
(6) Reporting of BMP Plan incidents.
(7) Materials compatibility.
(8) Good housekeeping.
(9) Preventative maintenance.
(10) Inspections and records.
(11) Security.
(12) Employee training.

b. Establish specific best management practices to meet the objectives identified in Part 3 of this section, addressing each component or system capable of generating or causing a release of significant amounts of pollutants, and identifying specific preventative or remedial measures to be implemented.

[62-620.100(3)(m)]

5. The permittee is encouraged, but not required, to conduct a waste minimization assessment (WMA) for this facility to determine actions that could be taken to reduce waste loadings and chemical losses to all wastewater and/or storm water streams.

If the permittee elects to develop and implement a WMA, information on plan components can be obtained from the Department's Industrial Wastewater website, or from:

Florida Department of Environmental Protection
Industrial Wastewater Section, Mail Station 3545
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

(850) 245-8589
(850) 245-8669 - (Fax)
[62-620.100(3)(m)]

6. The BMP Plan shall be signed by the permittee or their duly authorized representative in accordance with Rule 62-620.305(2)(a) and (b), F.A.C. The Plan shall be reviewed by appropriate facility staff and management. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of the Plan shall be signed and sealed by the professional(s) who prepared them.

The BMP Plan shall contain a written statement from corporate or facility management indicating management's commitment to the goals of the BMP Plan program. Such statements shall be publicized or made known to all facility employees. Management shall also provide training for the individuals responsible for implementing the BMP Plan. *[62-620.100(3)(m)]*

7. The permittee shall maintain a copy of the BMP Plan at the facility and shall make the plan available to the Department upon request. All offices of the permittee which are required to maintain a copy of the NPDES permit shall also maintain a copy of the BMP Plan. *[62-620.100(3)(m)]*

8. If following review by the Department, the BMP Plan is determined insufficient, the permittee will be notified that the Plan does not meet one or more of the minimum requirements of this Part. Upon such notification from the Department, the permittee shall amend the plan and shall submit to the Department a written certification that the requested changes have been made. Unless otherwise provided by the Department, the permittee shall have 30 days after such notification to make the changes necessary.

The permittee shall amend the BMP Plan whenever there is a change in the facility or in the operation of the facility which materially increases the generation of pollutants or their release or potential release to the receiving waters. The permittee shall also amend the Plan, as appropriate, when plant operations covered by the BMP Plan change. Any such changes to the Plan shall be consistent with the objectives and specific requirements listed above. All changes in the BMP Plan shall be reported to the Department in writing. *[62-620.100(3)(m)]*

9. At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release and potential release to the receiving waters and/or the specific requirements above, the permit and/or the BMP Plan shall be subject to modification to incorporate revised BMP Plan requirements. *[62-620.100(3)(m)]*

VIII. OTHER SPECIFIC CONDITIONS

1. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. *[62-620.310(4)]*

2. The permittee shall provide verbal notice to the Department's Central District Office as soon as practical after discovery of a sinkhole or other karst feature within an area for the management or application of wastewater, or wastewater sludge. The Permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's Central District Office in a written report within 7 days of the sinkhole discovery. *[62-620.320(6)]*

3. Reopener Clause

   a) The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable.

      1) Contains different conditions or is otherwise more stringent than any condition in the permit/or;

      2) Controls any pollutant not addressed in the permit.

   b) The permit as revised or reissued under this paragraph shall contain any other requirements then applicable.

   c) The permit may be reopened to adjust effluent limitations or monitoring requirements should DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

IX. GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1)]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2)]*

3. As provided in subsection 403.087(7), 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 personal rights, nor authorize any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3)]*

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. *[62-620.610(4)]*

5. This permit does not relieve the permittee from liability and penalties 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; 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. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5)]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6)]*

7. The permittee shall at all times 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. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7)]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8)]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:

   a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;

   b. Have access to and copy any records that shall be kept under the conditions of this permit;

   c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and

   d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

   [62-620.610(9)]

10. 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 as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10)]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11)]*

12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, 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. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12)]*

13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13)]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. *[62-620.610(14)]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility or activity and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15)]*

16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16)]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    a. A description of the anticipated noncompliance;

    b. The period of the anticipated noncompliance, including dates and times; and

    c. Steps being taken to prevent future occurrence of the noncompliance.

    [62-620.610(17)]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246 and Chapters 62-160, 62-601, and 62-610, F.A.C., and 40 CFR 136, as appropriate.

    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.

    b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

    c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.

    d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.

    e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.

    f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220, and 62-160.330, F.A.C.

    [62-620.610(18)]

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19)]*

20. The permittee shall report to the Department's Central District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

    a. The following shall be included as information which must be reported within 24 hours under this condition:

        (1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,

        (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,

        (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and

        (4) Any unauthorized discharge to surface or ground waters.

    b. Oral reports as required by this subsection shall be provided as follows:

        (1) For unauthorized releases or spills of treated or untreated wastewater reported pursuant to subparagraph (a)4. that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:

            (a) Name, address, and telephone number of person reporting;
            (b) Name, address, and telephone number of permittee or responsible person for the discharge;
            (c) Date and time of the discharge and status of discharge (ongoing or ceased);
            (d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
            (e) Estimated amount of the discharge;
            (f) Location or address of the discharge;
            (g) Source and cause of the discharge;
            (h) Whether the discharge was contained on-site, and cleanup actions taken to date;
            (i) Description of area affected by the discharge, including name of water body affected, if any; and
            (j) Other persons or agencies contacted.

        (2) Oral reports, not otherwise required to be provided pursuant to subparagraph b.1 above, shall be provided to the Department's Central District Office within 24 hours from the time the permittee becomes aware of the circumstances.

    c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Central District Office shall waive the written report.

    [62-620.610(20)]

21. The permittee shall report all instances of noncompliance not reported under Permit Conditions IX. 17, 18 or 19 of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Permit Condition IX.20 of this permit. *[62-620.610(21)]*

22. Bypass Provisions.

    a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment works.

    b. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

        (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

        (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

        (3) The permittee submitted notices as required under Permit Condition IX. 22. c. of this permit.

    c. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Permit Condition IX. 20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

    d. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Permit Condition IX. 22. b.(1) through (3) of this permit.

    e. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Permit Condition IX. 22. b. through d. of this permit.

    [62-620.610(22)]

23. Upset Provisions.

    a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.

        (1) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.

        (2) An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.

    b. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

        (1) An upset occurred and that the permittee can identify the cause(s) of the upset;

        (2) The permitted facility was at the time being properly operated;

        (3) The permittee submitted notice of the upset as required in Permit Condition IX.5. of this permit; and

        (4) The permittee complied with any remedial measures required under Permit Condition IX. 5. of this permit.

    c. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.

    d. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

    [62-620.610(23)]

PERMITTEE:	Marion County Solid Waste Department	PERMIT NUMBER:	42-FLA349283-003
FACILITY:	Marion County Baseline Landfill Transfer Station-Closed Loop Recycle System	EXPIRATION DATE:	October 5, 2019

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Christianne C. Ferraro

Christianne C. Ferraro, P.E.
Administrator
Water Permitting Program

Permit Issuance Date: March 24, 2014

STATEMENT OF BASIS
FOR
STATE OF FLORIDA INDUSTRIAL WASTEWATER FACILITY PERMIT

PERMIT NUMBER: 42-FLA349283-003

FACILITY NAME: Marion County Baseline Landfill Solid Waste Transfer Station - Closed Loop Recycle System

FACILITY LOCATION: State Road 35 at Southeast 66th Street
Ocala, Marion County

NAME OF PERMITTEE: Marion County Solid Waste Department

PERMITTEE ADDRESS: 5601 Southeast 66th Street
Ocala, FL 34480

RESPONSIBLE PARTY: Dr. Lee A. Niblock, County Administrator

FACILITY CONTACT: Mike Sims, Solid waste Director
352-671-8465
(mike.sims@marioncountyfl.net)

PERMIT WRITER: Eugene Elliott, Engineer IV

1. SUMMARY OF APPLICATION

a. Chronology of Application

Application Number: 42-FLA349283-003-IW9B

Application Submittal Date: March 17, 2014

PERMIT HISTORY: Equipment wash operation for use at the solid waste management facility. In accordance with DEP policy, closed loop-recycle systems serving solid waste management operations cannot be exempted from permitting. Permit 001 was issued June 18, 2004, to expire June 18, 2009. Permit 002 was issued October 8, 2009 to expire October 5, 2014. This 003 permit shall be effective on October 6, 2014 and expire October 5, 2019.

b. Type of Facility

This permit authorizes the operation of an existing Industrial Wastewater treatment and reuse system to serve the referenced facility. Trucks and other equipment used at the landfill will be washed on a 50 foot by 25 foot covered concrete pad. The wastewater generated by this washing is collected in a sump. Flows are 25 gpm through the treatment system and system Design capacity in 1,328 gpd.

SIC Code: 7542 - Car Washes

c. Facility Capacity

Existing Permitted Capacity:	0.01 mgd Daily Maximum Flow
Proposed Increase in Permitted Capacity:	0.00 mgd Daily Maximum Flow
Proposed Total Permitted Capacity:	0.01 mgd Daily Maximum Flow

Note, actual flows never approach 0.010 MGD, but the category for the closed loop system does allow for flows to that limit and the system has no discharge to ground or to surface waters of the State.

d. Description of Wastewater Treatment

The sump is a 3 foot by 3 foot fiberglass in ground basin, which overflows by gravity to a second tank. This unit is a 3 foot by 9 foot fiberglass basin that is divided into sections by underflow baffles. The wastewater is pumped from this basin to a pre-manufactured treatment system. The system treats the wastewater with biological digestion, filtration and oil/water separation. The effluent is stored in a pressure tank for reuse. Filters are back washed into the primary sump for the raw wastewater. There shall be no discharge from any part of this wastewater treatment and recycle system to the surface or ground waters of the State.

e. Description of Effluent Disposal and Land Application Sites (as reported by applicant)

See DEP Exhibits 1, 2, 3 and 3A from the previous 002 permit on record with the Department for system design and layout.

2. SUMMARY OF SURFACE WATER DISCHARGE

This facility does not discharge to surface waters.

3. BASIS FOR PERMIT LIMITATIONS AND MONITORING REQUIREMENTS

There are no sampling routine self-monitoring requirements for this permit. The facility has not been changed in any significant manner since the last permit.

4. DISCUSSION OF CHANGES TO PERMIT LIMITATIONS

The current wastewater permit will expire October 5, 2014. This permit, FLA349283-003-IW9B, will become effective October 6, 2014 and will expire on October 5, 2019.

5. INDUSTRIAL SLUDGE MANAGEMENT REQUIREMENTS

A. RESIDUALS MANAGEMENT:

1. Solids and sludges from this system shall be recovered and disposed of at a Class I landfill site authorized by the Department to accept solid waste under Chapter 62-701, F.A.C. The permittee shall also submit, for Department approval, the intended course of action on the offsite disposal of these recovered solids.

2. On site application of solids (residuals) is not authorized. Spent wash water, used filters, grit and other waste solids shall be removed from the property for disposal at a DEP approved facility.

3. Waste oil removed from any treatment unit in this system shall be stored onsite in a separate waste oil tank. The stored waste oil shall be managed and ultimately disposed of by a licensed used oil recycler in accordance with the provisions of Chapter 62-710, F.A.C.

4. Should the party accepting waste oil or solids from the facility require a chemical analysis, then the permittee shall submit a copy of the analysis to the Department for evaluation.

5. The mixing of any waste product generated from this system with septage or domestic residuals is prohibited.

6. GROUND WATER MONITORING REQUIREMENTS

This section is not applicable to this facility.

7. PERMIT SCHEDULES

A schedule is not included in the wastewater permit.

8. BEST MANAGEMENT PRACTICES/STORMWATER POLLUTION PREVENTION PLANS

As stated in Section VII of the permit, a Best Management Practices (BMP) Plan is required for the facility, pursuant to Rule 62-620.100(m), F.A.C., and 40 CFR Part 122.44(k). The plan provides a facility-specific approach for the minimizing of pollutant discharge from ancillary activities.

9. ADMINISTRATIVE ORDERS (AO) AND CONSENT ORDERS (CO)

This permit is not accompanied by an AO and has not entered into a CO with the Department.

10. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

No variances were requested for this facility.

11. THE ADMINISTRATIVE RECORD

The administrative record including application, draft permit, fact sheet, public notice (after release), comments received and additional information is available for public inspection during normal business hours at the location specified in item 13. Copies will be provided at a minimal charge per page.

12. PROPOSED SCHEDULE FOR PERMIT ISSUANCE

Notice of Permit Issuance March 24, 2014

13. DEPARRTMENT CONTACT

Additional information concerning the permit and proposed schedule for permit issuance may be obtained during normal business hours from:

Eugene Elliott, Engineer IV
(gene.elliott@dep.state.fl.us)

3319 Maguire Blvd Suite 232
Orlando, FL 32803-3767
Telephone No.: (407) 897-4151

Note to Inspectors: (Taken from the 002 permit cycle) From the DEP Exhibits noted above (available in the hard files at this time), the following should be checked. Discharges from the cartridge filter drain valve (no. 20) shall only be to the raw wastewater sump. The rainwater overflow connection (no. 24) is for the removal of excess water from the system. This shall be disposed of as spent process wastewater. The rinse water outlet (no. 25) has a valved connection to the fresh water make up line. This make up water is used to make a final fresh water rinse on the vehicles after washing. The runoff from this final fresh water rinse is discharged to the raw wastewater sump. These points were indicated to the Department as practices when the first operation permit was approved.

MARION COUNTY
BASELINE LANDFILL

PERMIT AND OPERATION PLAN

WACS I.D. Number: 20906
Permit Number: SO42-0103935-011

Prepared for:

MARION COUNTY BOARD OF COUNTY COMMISSIONERS
Marion County, Florida
601 SE 25th Avenue
Ocala, Florida 34471

Prepared by:

JONES EDMUNDS & ASSOCIATES, INC.
730 NE Waldo Road
Gainesville, Florida 32641

Certificate of Authorization #1841

March 2014

PERMIT

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTINEZ CENTER
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

March 5, 2014

NOTICE OF PERMIT

By-Email
Lee.niblock@marioncountyfl.org

In the Matter of an
Application for Permit by:
Dr. Lee Niblock, County Administrator
Marion County Board of County Commissioners
601 S.E. 25th Avenue
Ocala, FL 34471
_____/

Marion County
WACS # 20906
Marion County Baseline Landfill

Attention: Dr. Niblock

DEP File No: 0103935-015-SO/01

Enclosed is Permit Number 0103935-015-SO/01 to operate Baseline Landfill, issued pursuant to Section 403.061(14) and 403.707, Florida Statutes.

A person whose substantial interests are affected by this modification of permit 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 fourteen days of receipt of this written notice. Petitions filed by other persons must be filed within fourteen 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, address, and telephone number of each petitioner, the applicant's name and address, the Department File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;

(d) A statement of all material facts disputed by petitioner or a statement that there are no disputed facts;

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

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or 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 Leon County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____for
Charles F. Goddard, Program Administrator
Permitting & Compliance Assistance Program

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to Section 120.52, F.S. with the designated Department Clerk, receipt of which is hereby acknowledged.

	03/05/2014
Clerk	Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were sent before the close of business on March 4, 2014 to the listed persons.

_____
Clerk

Enclosure: Permit No. 0103935-015-SO/01

Copies furnished to:

- Mickey Pollman, Project Manager, Jones Edmunds, mpollman@jonesedmunds.com
- F. Thomas Lubozynski, P.E., Waste & Air Resource Programs Administrator, Tom.Lubozynski@dep.state.fl.us
- Richard Tedder, P.E., Environmental Administrator Solid Waste Section Richard.Tedder@dep.state.fl.us
- Mike Sims, Marion County Solid Waste Director, Mike.Sims@marioncountyfl.org
- Mark D. Hadlock, PE, Senior Engineer Jones Edmunds, MHadlock@jonesedmunds.com

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTINEZ CENTER
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

Permit Issued to:

Marion County Board of County Commissioners
Marion County Solid Waste

WACS Facility ID No.: 20906
Facility Name: Marion County Baseline Landfill
Contact Person: Mike Sims, Solid Waste Director
5601 SE 66th Street
Ocala, Florida 34480
(352) 671-8465

Authorized Representative:
Dr. Lee Niblock, County Administrator
Marion County Board of County Commissioners
601 S.E. 25th Avenue
Ocala, Florida 34471
lee.niblock@marioncountyfl.org
(352) 438-2300

Solid Waste Operations Renewal Permit – Landfill
Permit No.: 0103935-015-SO/01
Replaces Permit No.: SO42-0103935-11

Permit Issued: March 05, 2014
Permit Renewal Application Due Date: January 01, 2024
Permit Expires: March 02, 2024

Permitting Authority
Florida Department of Environmental Protection
Tallahassee Solid Waste Program & Permitting
2600 Blair Stone Road, MS 4565
Tallahassee, Florida 32399-2400
(850) 245-8707
Fax (850) 245-8803

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The permittee is hereby authorized to operate the facility described below in accordance with the specific and general conditions of this permit and any documents attached to this permit or specifically referenced in this permit and made a part of this permit.

This solid waste Operation Permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code Chapters 62-4 and 62-701.

This permit does not relieve the permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Department does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or from the Water Management District.

B. Facility Location

5601 SE 66th Street
Ocala, Florida 34480
Latitude: 29° 07' 30" N Longitude: 82° 03' 45" W

C. Facility Description

This permit is for the continued operation of the Baseline Landfill-Phase III, Class I, which includes Cells III-A, III-B, and III-C, for the disposal of municipal solid waste generated within Marion County, Florida.

- Other operations at the County landfill include household hazardous waste storage, white goods storage, waste tire storage and asbestos disposal.
- Operation of the recycling center and Landfill Gas to Energy Facility at the landfill is not included in this permit.
- The facility has a current Title V (NSPS) Air Permit No. 0830124-0110AV, which expires on May 31, 2016. The facility must comply with its air permit and all applicable air requirements.
- Closure maintenance activities for the closed "Urban Cell" consisting of 38 acres are provided under a separate Department closure permit No. SF42-0103935-008, issued 06/23/2006 with an expiration date of 05/25/2016, and are not addressed in this permit.

General Information

Disposal acres	Phase III, Cells A,B,&C: 43 acres
Bottom liner design	Phase III, Cell A: double liner system with a 100 mil HDPE primary liner and a secondary liner consisting of compacted clay liner with maximum permeability of 5 x 10^{-8} cm/sec. Phase III, Cell B and C: Double liner system consisting of a 60 mil HDPE geomembrane primary liner above a secondary composite liner consisting of a 60 mil HDPE geomembrane over a compacted clay layer with maximum permeability of 5 x 10^{-8} cm/sec.
LCS Design	Phase III, Cell A: 24" drainage sand, above 100 mil HDPE primary liner. Phase III, Cell B and C: 24" drainage sand, above 60 mil HDPE primary liner.
LDS Design (below primary liner)	Phase III, Cell A: HDPE drainage net with a geosynthetic stabilization and filter layer on the lower side of the drainage net above the compacted clay liner with maximum permeability of 5 x 10^{-8} cm/sec. Phase III, Cell B and C: HDPE drainage net above 60 mil secondary geomembrane liner
Leachate storage	Four (4) 30,000 gallon above ground fiberglass storage tanks.
Final elevation (including cover)	Not to exceed +300 feet NGVD
Slopes	3H:1V

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 – List of Approved Documents Incorporated into the Permit

APPENDIX 3 –Monitoring Plan Implementation Schedule

E. Attachments for Informational Purposes Only

ATTACHMENT 1 - Time Sensitive Action Chart. If any of the time deadlines in the Time Sensitive Action Chart are inconsistent with the time deadlines in the permit conditions, the time deadline in the permit condition shall be followed.

ATTACHMENT 2 - Facility Permit History

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The permit application as revised in final form replaced or amended in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete permit application are listed in APPENDIX 2.

2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of Rule 62-701.320(4), F.A.C.

3. Permit Renewal. In order to ensure uninterrupted operation of this facility, a timely and sufficient permit renewal application must be submitted to the Department in accordance with Rule 62-701.320(10), F.A.C. A permit application submitted at least 61 days prior to the expiration of this permit is considered timely and sufficient.

4. Transfer of Permit or Name Change. In accordance with Rule 62-701.320(11), F.A.C., the Department must be notified by submitting Form 62-701.900(8) within 30 days: (a) of any sale or conveyance of the facility; (b) if a new or different person takes ownership or control of the facility; or (c) if the facility name or permittee's legal name is changed.

5. Submittals Required Every Five Years. No later than 3/04/2019 the permittee shall submit a report to the Department that contains the following:

   a. An updated closure plan to reflect changes in closure design, long-term care requirements, and financial assurance requirements.
   b. A revised closure cost estimate, made by recalculating the total cost of closure or long-term care, in current dollars.
   c. A demonstration that the leachate collection system has been water pressure cleaned or inspected by video recording.
   d. An updated operation plan, if operational procedures have changed.

B. Construction Requirements

1. Construction authorized: This Permit does not authorize any construction activities.

C. Operation Requirements

1. General Operating Requirements. The Permittee shall operate the landfill in accordance with Rule 62-701.500, F.A.C., and the Approved Operation Plan

dated January 2014 as listed in APPENDIX 2 (item 3). The Department shall be notified before any changes, other than minor deviations, to the approved Operation Plan are implemented in order to determine whether a permit modification is required.

2. Operation Plan. A copy of the approved Operation Plan, including the operating record as defined in Rule 62-701.500(3), F.A.C., shall be kept at the facility and shall be accessible to landfill operators.

3. Authorized Waste Types. The facility is authorized to manage only the following waste types:
   a) Waste types defined in Rule 62-701.200, F.A.C.:
      1) Class I waste.
         a. Household
         b. Commercial
      2) Class III waste.
      3) Construction and demolition debris.
      4) Yard trash.
      5) Agricultural.
      6) Sludge (domestic, industrial).
      7) Industrial.
   b) Other Wastes Specifically Authorized:
      1) Biological Wastes.
         a. Bodies of domestic animals upon death by disease shall be disposed of pursuant to Section 823.041(1), F.S.
         b. Bodies of captive wildlife, as well as bodies of domestic animals that have not died due to disease.
         c. Treated Biomedical may only be accepted in accordance with Rule 62-701.300(6), F.A.C.
      2) Asbestos. Asbestos may be accepted and managed in accordance with the requirements of 62-701.520(3), F.A.C.
      3) Contaminated Soil. Contaminated soil acceptance is conducted on a case-by-case basis in accordance with 62-713, F.A.C.
   c) Special Wastes: The disposal or control of special wastes shall be in accordance with the most recently approved Operation Plan, Rules 62-701.300(8) and 62-701.520, F.A.C., and any other Department rules, to protect the public safety, health and welfare. The special wastes shall be handled on a first-in, first-out basis.

4. Unauthorized Waste Types. The facility is not authorized to process or dispose any waste types not listed in C.3. above. In addition, the facility is not authorized to process or dispose the following wastes in the Class I Landfill in accordance with Rule 62-701.300(8), F.A.C.

   - Lead-acid batteries;
   - Used oil, except as provided in Chapter 62-710, F.A.C.;

- Yard trash in a Class I landfill, except as may be allowed pursuant to Section 403.708(12)(c), F.S.;
- White goods and lawn mowers;
- Whole waste tires, except as provided in Chapter 72-711, F.A.C.

Any unauthorized waste inadvertently received by the facility shall be managed in accordance with the approved Operation Plan.

5. Waste Management and Handling.
   a. Solid waste shall be formed into cells to construct horizontal lifts. The working face of the cell, and side grades above land surface, shall be at a slope no greater than three feet horizontal to one-foot vertical rise or as authorized by this permit in accordance with the approved operation plan.
   b. No solid waste shall be disposed of outside of the permitted footprint of the solid waste disposal units.
   c. The sequence of waste filling shall be as specified in the approved operation plan.

6. Landfill Elevation. The final (maximum) elevation of the landfill, Phase III, shall not exceed the previously permitted elevation of 300 feet NGVD as specified in Note 2 on sheet C6 of the Conceptual Final Cover Plan. However, due to the placement of a haul road, the current final design elevation of the landfill is 290 feet NGVD as depicted on Section and Details sheets C7 and C8. (See APPENDIX 2, item 2 attachment 6 Revised Engineering Drawings)

7. Cover Requirements: All solid waste disposed of in the Class I 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 end of each working day in the Class I landfill in accordance with Rule 62-701.500(7)(e)&(f), F.A.C., so as to protect the public health and welfare.

   b. Alternate initial cover material not identified herein shall be approved by the Department prior to use at the facility.

      - For those areas where solid waste will be deposited on the working face within 18 hours, initial cover may consist of a temporary cover or tarpaulin.
      - Processed yard waste, unscreened, and then mixed with soil provided that soil makes up at least 50 percent by volume of the mixture, and applied in a six inch compacted layer may be used as initial cover within the bermed working area.

   c. Intermediate Cover: Intermediate cover shall be applied and maintained in accordance with Rule 62-701.500(7)(g), F.A.C. An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch layer of 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.

d. Materials that have been used for intermediate cover may be removed and reused only if the materials are substantially free of waste.

8. Erosion Control: Erosion control measures shall be employed to correct any erosion which exposes waste or causes malfunction of the storm water management system. Such measures shall be implemented within three days of occurrence. If the erosion cannot be corrected within seven days of occurrence, the landfill operator shall notify the Department and propose a correction schedule.

9. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Contingency Plan. Notification shall be made to DEP's Central District Office at (407) 897-4100.

10. Housekeeping. The facility shall be operated to control dust, vectors, litter and objectionable odors. If objectionable odors are confirmed beyond the landfill property boundary, the owner or operator shall comply with the gas management requirement in Specific Condition 2.E.7.

11. Leachate Management.
    a. The permittee shall operate the leachate management system (including the collection, removal, storage, and on-site treatment systems), and maintain the system as designed in accordance with the Operation Plan, so that leachate is not discharged from the system except as provided for in the Design Plan and Operation Plan.
    b. Routine inspections and maintenance of the leachate management system shall be conducted in accordance with the schedule established in the Operation Plan.
    c. The leachate collection pipes shall be cleaned or video inspected at least once every five years. A summary of the results shall be submitted in accordance with Specific Condition 2.A.5.c and with the permit renewal application.
    d. The permittee, on a daily basis, shall record quantities of leachate generated in gal/day and precipitation at the facility, and shall compare these measurements.

12. Spotters and Operators. This facility shall have the minimum number of spotters present when waste is accepted as specified in the Operation Plan, to be located as specified in the Operation Plan. A trained operator shall be on duty at the facility at all times the facility is operating. Approved training courses can be found at the following web site: http://www.treeo.ufl.edu/sw

13. Record Keeping Requirements.
    a. Waste Quantity Records. Waste records shall be compiled monthly, and copies shall be provided to the Department no less than annually by January 20th. This information shall be reported to the Department through the DEP Business Portal located at: http://www.fldepportal.com/go .
    b. Estimate of Remaining Life. The permittee shall submit the annual estimate of the remaining life and capacity by April 1 each year. The report is required by Rule 62-701.500(13)(c), F.A.C. and must be submitted to the District Office and to:

       Florida Department of Environmental Protection
       Solid Waste Program and Permitting
       MS 4565
       2600 Blair Stone Road
       Tallahassee, Florida, 32399-2400

14. Hazardous Waste. No hazardous waste shall be disposed of in a solid waste management facility unless such facility is permitted pursuant to Chapter 62-730, F.A.C. If any regulated hazardous wastes are discovered to be deposited at the facility, the facility operator shall promptly notify the Department, the person responsible for shipping the wastes to the facility, and the generator of the wastes, if known. The area where the wastes are deposited shall immediately be cordoned off from public access. If the generator or hauler cannot be identified, the facility operator shall assure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility. In the event that hazardous wastes are discovered they shall be managed in accordance with the procedures provided in the facility's Operation Plan.

15. Stormwater. Leachate shall not be discharged into the stormwater management system. Stormwater or other surface water which comes into contact with or mixes with the solid waste or leachate shall be considered leachate and is subject to the requirements of Rule 62-701.500(8), F.A.C.

D. Water Quality Monitoring Requirements

1. Zone of Discharge. The zone of discharge for this facility shall be a three dimensional volume defined in the horizontal plane as 100 feet from the limits of the landfill disposal areas (all active, inactive and closed) or to the property boundary; whichever is less, and defined in the vertical plane as extending from the top of the ground to the depth of the upper most compliance monitoring wells. The property boundary and well locations are depicted on the site plan, sheet C-4 in Attachment B of the September 30, 2013 operations permit renewal application (see APPENDIX 2, Item 1). The permittee shall ensure that Class G-II water quality standards will not be exceeded at the boundary of the zone of discharge, per Rule 62-520.420, F.A.C., and that ground water minimum criteria will not be exceeded outside the boundary of the zone of discharge, per Rule 62-701.320(17), F.A.C.

2. Water Quality Monitoring Plan. The Water Quality Monitoring Plan for this permit is included in APPENDIX 3.

E. Gas Management System Requirements

1. Construction Requirements. All construction shall be done in accordance with the approved gas management system design, drawings, and specifications. (See APPENDIX 2, Items 4 and 5). The Department shall be notified before any changes, other than minor deviations, to the approved design are implemented in order to determine whether a permit modification is required. Locations of the active gas extraction wells are depicted on the site plan, sheet C-4 in Attachment B of the September 30, 2013 operations permit renewal application (see APPENDIX 2, Item 1).

2. Gas monitoring points are specified in the table below and are graphically depicted on the site plan, sheet C-4 in Attachment B of the September 30, 2013 operations permit renewal application (see APPENDIX 2, Item 1).

Monitoring Point	Type of Monitoring	Location
GMW-1	Probe	Along East Property Line
GMW-2	Probe	Along East Property Line
GMW-3	Probe	Along East Property Line
GMW-4	Probe	Along East Property Line
GMW-5	Probe	Along East Property Line
GMW-6	Probe	Along North Side of Site Access Road
GMW-7	Probe	Along North Side of Site Access Road
GMW-8	Probe	Along North Side of Site Access Road
GMW-9	Probe	Green Area South of Scale House
GMW-10	Probe	Green Area South of Scale House
GMW-11	Probe	SW of SW Corner Phase III-C Cell
GMW-12A	Probe	Along West Property Line
GMW-13A	Probe	Along West Property Line
GMW-14A	Probe	Along West Property Line
GMW-15A	Probe	Along West Property Line
GMW-16A	Probe	Along West Property Line
GMW-17A	Probe	Along West Property Line
GMW-18	Probe	Along West Property Line
GMW-19	Probe	Along West Property Line
GMW-20	Probe	Northern Most Property Corner
GMW-21	Probe	Along East Property Line
GMW-22	Probe	Along East Property Line
GMW-23	Probe	Along East Property Line
GMW-24	Probe	Along East Property Line
GMW-25	Probe	Along East Property Line

GMW-26	Probe	Along East Property Line
GMW-27	Probe	Along West Property Line
GMW-28	Probe	South of Pond B
GMW-29	Probe	South of Pond B
GMW-30	Probe	South of Com. Tower Access Road
GMW-31	Probe	South of Transfer Station
SH 1-2	Monitoring Location	Scale House
ADM 1-2	Monitoring Location	Administrative Building
ANT 1	Monitoring Location	Radio Tower
OB 1-2	Monitoring Location	Operations Building
PDO 1	Monitoring Location	Probation Drop Off
MB 1-2	Monitoring Location	Maintenance Building
HAZ 1-2	Monitoring Location	Hazardous Waste Building
AS 1-2	Monitoring Location	Animal Control Building
OSH 1-2	Monitoring Location	Old Scale House
BB 1	Monitoring Location	Break Building

The listed gas monitoring probes are to be clearly labeled and their locations easily visible at all times.

3. Certification of Construction Completion. After construction of a landfill gas extraction well is completed the engineer of record shall certify to the Department in accordance with Rule 62-701.320(9)(b), F.A.C., that the permitted construction is complete and was performed in substantial conformance with the approved construction plans except where minor deviations were necessary. All deviations shall be described and the reasons therefore enumerated. Multiple wells may be included in one certification to the Department provided they are included in the Department approved construction project.

4. Operational Requirements. Gas controls shall be operated and maintained so that they function as designed.

5. Monitoring Requirements. Monitoring for methane gas at the property boundary and within structures on the property shall be performed quarterly to determine the effectiveness of the gas migration controls. Quarterly reports shall be submitted to the Department, Central District Office under separate cover no later than the 20th of January, April, July, and October of each year. The gas monitoring results shall be reported as a percent of the lower explosive limit (LEL), calibrated to methane.

6. Gas Remediation Plan. The facility landfill gas management system shall be operated to prevent the concentration of combustible gases from exceeding 25% of the lower explosive limit in structures, excluding gas control or recovery components, and from exceeding the lower explosive limit at or beyond the property boundary. If either of these limits is exceeded then a gas remediation

plan shall be designed and implemented in accordance with Rule 62-701.530(3)(a), F.A.C.

7. Odor Remediation Plan. The facility shall be operated to control objectionable odors. If objectionable odors are confirmed beyond the property boundary then upon notification by the Department the permittee shall develop and implement an odor remediation plan in accordance with the requirements of Rule 62-701.530(3)(b), F.A.C.

F. Financial Assurance and Cost Estimates

1. Financial Assurance Mechanism. The permittee shall maintain, in good standing, the financial assurance mechanisms. Supporting documentation and evidence of increases associated with cost estimate increases shall be submitted within the time frames specified in Rule 62-701.630, F.A.C.

   All submittals in response to this specific condition shall be sent to:
   Florida Department of Environmental Protection
   Financial Coordinator
   2600 Blair Stone Road, MS 4565
   Tallahassee, Florida 32399-2400

   However, audits to the escrow account may be submitted by email to the following email address:
   Solid.Waste.Financial.Coordinator@dep.state.fl.us.

2. Cost Estimates.
   a. The permittee shall submit closure cost estimates, including annual adjustments for inflation, in accordance with the requirements of Rule 62-701.630(3) and (4), F.A.C., and 40 CFR Part 264.142(a) and .144(a) using Form 62-701.900(28).
   b. An owner or operator using an escrow account shall submit the annual inflation adjusted estimate(s) between July 1 and September 1. An owner or operator using a letter of credit, guarantee bond, performance bond, financial test, corporate guarantee, trust fund or insurance shall submit the inflation adjusted cost estimate(s) between January 1 and March 1.
   c. All submittals in response to this specific condition shall be sent to the District Office and a copy to the address identified in Specific Condition F.1. or to the following email address: Solid.Waste.Financial.Coordinator@dep.state.fl.us.

G. Closure Requirements

1. Closure Permit Requirements. Prior to initiating closure of a solid waste disposal unit, or part of a solid waste disposal unit, the Permittee shall receive authorization from the Department in one of the following ways.
   a. If the landfill is operating under a Department permit that includes a Closure Plan with sufficient detail to provide reasonable assurance of compliance with the closing requirements of Rule 62-701.600, F.A.C., then the Permittee shall notify the Department at least 30 days prior to initiating the closure activities and receive written approval from the Department prior to beginning the work.
   b. If the landfill is operating under a Department permit that requires substantive changes to the closing activities in the permitted Closure Plan, then the Permittee shall request a modification of the permit to include sufficient design detail to ensure compliance with the closing requirements of Rule 62-701.600, F.A.C., and shall initiate closing only after the permit has been modified.
   c. The Permittee shall submit an application to the Department for a closure permit on Form 62-701.900(1) and shall initiate closure activities only after the permit is issued. The application shall include a Closure Plan made up of the following:
      1) A closure design plan;
      2) A closure operation plan;
      3) A plan for long-term care; and,
      4) A demonstration that proof of financial assurance for long-term care will be provided.

2. Closure Design. All closure construction shall be done in accordance with the approved closure design plan. The Department shall be notified before any changes, other than minor deviations, to the approved closure design are implemented in order to determine whether a permit modification is required.

3. Closure Operation Plan. All closure shall be done in accordance with the approved closure operation plan.

4. Certification of Closure Construction Completion. After closure construction has been completed, the engineer of record shall certify to the Department on Form 62-701.900(2) that the closure is complete and that it was done in accordance with the plans submitted to the Department except where minor deviation was necessary. All deviations shall be described in detail and the reasons therefore enumerated.

5. List of Closed Units Not in Long-Term Care. [Not applicable all Phase III cells specified in this Operations Permit are currently active]

H. Long Term Care Requirements

[No areas at the Baseline Landfill Solid Waste Management Facility are in long-term care at this time.]

Executed in Leon County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

For
Charles F. Goddard, Program Administrator
Permitting and Compliance Assistance Program

FILED, on this date, pursuant to Section 120.52, F.S. with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

03/05/2014
Date

APPENDIX 1

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, as 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.

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

12. 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.

(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.

13. 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.

APPENDIX 2

Approved Documents Incorporated Into the Permit

The approved application documents for Marion County Solid Baseline Landfill Operations Permit Renewal consist of the following:

1. Initial permit renewal application and supporting information prepared by Jones Edmunds & Associates, Inc. on behalf of Marion County Board of County Commissioners dated September 27, 2013 stamped received by the Tallahassee Solid Waste Section on September 30, 2013.

   http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.186438.1]

2. Response to FDEP Request for Additional information prepared by Jones Edmunds & Associates, Inc. on behalf of Marion County Board of County Commissioners dated January 16, 2014 received by the Tallahassee Solid Waste Section on January 17, 2014. With pages replaced and or amended with information received by email February 5, 2014 from Jones Edmunds & Associates Incorporated.

   http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.196984.1]

3. Approved Operations Plan dated January 2014 provided by the applicant with attachments. Includes update to table 3.2 provided on March 4, 2014 by email.

   http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.196985.1]

Previously Approved Documents Included by Reference

4. Permit No. SO42-0103935-012

   - Marion County Baseline Landfill, Gas Collection and Control System, Minor Permit Modification application, prepared by: Jones Edmunds & Associates, Inc., Gainesville, Florida, dated September 25, 2009. Received and stamped September 28, 2009, DEP – Central District.

     http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.59035.1]

- Permit application completion letter, dated October 22, 2009, from DEP – Central District.

  http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.60896.1]

5. Permit No. SO42-0103935-013

- "Marion County Baseline Landfill 2012 Gas Collection and Control System Minor Permit Modification Application," prepared by Jones Edmunds and Associates, dated February 7, 2012 and received by the Department February 9, 2012.

  Part 1
  http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.139060.1]

  Part 2
  http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.139061.1]

- E-mail from Michele Pollman, Jones Edmunds and Associates, dated March 8, 2012. The e-mail provided information about replacement of eight gas extraction wells.

  http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.142125.1]

Appendix 3

BASELINE LANDFILL

WACS_FACILITY: 20906

MONITORING PLAN IMPLEMENTATION SCHEDULE (MPIS)
3/05/2014

GENERAL

1. This water quality monitoring plan (called the Monitoring Plan Implementation Schedule) is effective immediately and becomes part of permit #0103935-015-SO/01. This MPIS replaces all previous MPIS issued for the Marion County Baseline Landfill solid waste management facility, WACS #20906. [62-701.510(1)(b)&(c), 62-520.600(5),(F.A.C.)]

2. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with Chapter 62-160 (F.A.C.) Approved methods as published by the Department or as published in Standard Methods, ASTM, or EPA Methods shall be used. [62-701.510(2)(b), F.A.C.]

3. The organization collecting samples at this site must use the Field and Laboratory Standard Operating Procedures (DEP-SOP-001/01) referenced in Chapter 62-160, F.A.C. Sampling personnel must have a copy of the SOP for purging and sampling in the field when sampling and must be knowledgeable of its contents, procedures, and forms. The laboratory designated to conduct the chemical analyses must be certified by the Florida Department of Health Environmental Laboratory Certification Program (DOH ELCP). This Certification must be for the test method and analyte(s) that are reported. [62-160.210(1), 62-160.300(1), F.A.C.]

   NOTE: DEP-SOP-001/01 can be accessed at: http://www.dep.state.fl.us/water/sas/sop/sops.htm

4. If, at any time, analyses detect parameters which are significantly above background water quality, or which are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., in the detection wells or at the edge of the Zone of Discharge, the Permittee, to confirm the data, shall resample the wells within thirty (30) days of receipt of the sampling data. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. The permittee must notify the Department within 14 days of receipt of the sampling data whether the original data will be accepted as representative of current ground water conditions or whether resampling will be accomplished to confirm the data.

   If the resampling event detects parameters which are significantly above background water quality, or which are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., the Permittee shall notify the Department in writing within 14 days of receipt of the sampling data. Confirmed data must be submitted to the Department within 60 days from completion of lab analyses. Use "CONF" (for confirmation data) in the report type column. [62-701.510(6)(a), F.A.C.]

Upon notification by the Department, the permittee shall initiate evaluation monitoring in accordance with Rule 62-701.510(6) F.A.C. [62-701.510(6)(a), F.A.C.]

GROUND WATER QUALITY MONITORING

5. The seventeen (17) active Monitoring wells are listed on **Attachment A** and shown on **Attachment B.** [62-701.510(3)(d)2 & 3, F.A.C.]

6. Any initial sample collected from a ground water monitoring well shall be analyzed for the following Initial Sample Ground Water Monitoring Parameters. [62-701.510(5)(b)2, F.A.C.]

Field Parameters	Laboratory Parameters*
1. Static water level in wells before purging	1. Chlorides
2. Dissolved oxygen	2. Iron
3. pH	3. Sodium
4. Specific conductivity	4. Nitrate
5. Temperature	5. Total ammonia as N
6. Turbidity	6. Total Dissolved Solids
7. Colors and sheens (by observation)	8.Those parameters listed in 40 CFR Part 258 Appendix II

* Mercury not on list because it is included in Appendix II
* Appendix I is not listed because it is a subset of Appendix II

7. Samples from seventeen (17) ground water monitoring wells shall be collected semi-annually in **February** and **August.** The samples shall be analyzed for the following Ground Water Parameters. [62-701.510(5)(c) & (7)(a), F.A.C.]

Field Parameters	Laboratory Parameters
1. Static water level in wells before purging	1. Chlorides
2. Dissolved oxygen	2. Iron
3. pH	3. Mercury
4. Specific conductivity	4. Sodium
5. Temperature	5. Nitrate
6. Turbidity	6. Total ammonia as N
	7. Total Dissolved Solids
	8. Those parameters listed in 40 CFR Part 258 Appendix I

8. Unless otherwise approved by the Department, wells with high turbidities must be remediated or reinstalled to reduce the turbidity value to less than 20 NTU prior to sample collection. Should any ground water sample exhibit dissolved oxygen concentrations greater than 20% of oxygen saturation at the field measured temperature, the sampled well must be re-purged then re-sampled as soon as an acceptable dissolved oxygen value has been attained unless it can be demonstrated that in situ ground water contains higher levels of dissolved oxygen. All water quality analyses will be performed on unfiltered samples unless approved by the Department.

9. Please confer with your consultant and analytical laboratory prior to sampling to ensure the analytical method is capable of achieving detection limits at or below the Groundwater Cleanup Target Levels (GCTLs) in Table I, Chapter 62-777, F.A.C. except those listed in Table C of the "FDEP Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation

Limits dated 10/12/2004". GCTLs that are not water quality standards are used as screening tools and interim guidelines for ground water minimum criteria until standards are promulgated.

MONITORING WELL REQUIREMENTS

10. If a monitoring well or piezometer becomes damaged or inoperable, the Permittee shall notify the Department in writing within seven (7) days. The written report shall describe what problem has occurred and the remedial measures that have been taken to prevent a recurrence. The Department can require the replacement of inoperable monitoring wells or piezometers. [62-4.070(3), F.A.C.]

11. New or replacement monitoring well design or placement must be approved by the Department. Either:
    a. Proposed well construction details based on site-specific borings must be submitted with all supporting data (grain size distribution analyses, in-situ hydraulic conductivity testing, depth to water, etc.) for the Department's approval prior to well installation. or

    b. The Department approves in advance of installation that the anticipated lithology and the proposed well construction is similar to close wells in the MPIS and that the final determination of this information (grain size distribution analyses, in-situ hydraulic conductivity testing, depth to water, etc.) can be evaluated by an engineer or geologist at the time of well installation and submitted with the well completion information. (This condition is satisfied for the 17 wells specified in this MPIS.)

12. Use of hollow stem auger equipment is recommended. Other drilling methods must be approved by the Department prior to well installation. [62-520.600(3), F.A.C.]

13. All wells and piezometers shall be clearly and permanently labeled and the well site maintained so that the well is visible at all times. Unless otherwise authorized in a Department permit, new monitoring wells, and existing monitoring wells at the time of permit renewal, shall have protective bollards or other devices installed around them if they are located in areas of high traffic flow to prevent damage from passing vehicles. [62-701.510(3)(d)5, F.A.C.]

14. An abandonment plan for abandoning any well that is unsuitable for ground water monitoring or for any piezometer must be approved by the Department prior to abandonment. [62-701.510(3)(d)6, F.A.C.]

REPORTING REQUIREMENTS

FIELD ACTIVITIES

15. The Department must be notified in writing, hard copy or e-mail, at least fourteen (14) days prior to the installation and/or sampling of any monitoring well(s). [62-701.510(8)(a), F.A.C.]

MONITORING WELL COMPLETION

16. One (1) paper copy and one (1) electronic copy (Adobe pdf format) of **Attachment C Monitoring Well Completion Report** (as modified by the Central District) and required Attachments (for example, construction diagram and lithologic log), must be submitted to the Department within

thirty (30) days after installation of any new or replacement monitoring well(s). In addition, as-built well construction diagrams and soil boring logs that cover the entire depth of the monitoring well(s) must be submitted to the Department.

NOTE: The top of casing elevation of each well, to an accuracy of 0.01 feet, and the latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and certified by a Florida Licensed Surveyor and Mapper and provided on the form. [62-701.510(3)(d)1 & 62-532.410, F.A.C.]

SURVEYING

17. One (1) paper copy and one (1) electronic copy (Adobe pdf format) of a drawing must be submitted within thirty (30) days following monitoring well installation showing the location of all monitoring sites (active, abandoned, and Evaluation Monitoring), piezometers, water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to NGVD 1929 with an accuracy of 0.01 feet. The latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and provided on the drawing. The survey shall be conducted and certified by a Florida Licensed Surveyor and Mapper. [62-701.510(1)(c)&(3)(d)1, F.A.C.]

18. If a monitoring well is being replaced or new wells are being added to an existing ground water monitoring plan, only the new wells need to be surveyed as long as all other monitoring wells in the MPIS have been surveyed and certified by a Florida Licensed Surveyor and Mapper and there is no reason to believe that the elevations have changed. The location and elevation determinations and the certification must be provided with the Monitoring Well Completion Form for the new well,

DEPTH MEASUREMENTS

19. A total depth measurement must be made on each well at time of permit renewal. This information must be provided as part of permit renewal application. This measurement is to be reported as total apparent depth below ground surface and should be compared to the original total depth of the well.

INITIAL AND SEMI-ANNUAL SAMPLING

20. Required monitoring reports must be submitted to the Department within sixty (60) days from completion of laboratory analyses. Requirement for submitting the report is outlined in **Attachment D (ADaPT Electronic Reporting Requirement)** [Rule 62-701.510(8), F.A.C.]

WATER ELEVATIONS

21. Water levels in all monitoring wells, whether sampled or not, all piezometers and all surface water sites must be measured to the nearest 0.01 foot. The depth to water shall be converted to feet NGVD and this elevation shall be reported semi-annually.

22. All water level measurements must be made within a one-day period.

23. These measurements should be reported in a table that includes well or surface water point name, date water level measured, measuring point elevation referenced to NGVD 1929, depth to water and calculated water level elevation referenced to NGVD 1929. The ground water and surface water elevations shall be reported in the ADaPT data for the upload into WACS. [62-701.510(8)(a)8, F.A.C.]

GROUND WATER CONTOUR MAPS

24. Ground water elevation contour maps for each monitored aquifer zone must be submitted semi-annually to the Department. Ground water elevation contour map(s) should include monitoring well and piezometer locations, ground water elevation at each monitoring well or piezometer location referenced to NGVD 1929, a bar scale, north arrow, ground water contour interval, date of measurement and ground water flow direction. The map(s) must incorporate adjacent and on-site surface water elevations where appropriate. These maps shall be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a licensed professional who is able to demonstrate competence in this subject area. [62-701.510(8)(a)9, F.A.C.]

MPIS Technical Report (formerly Biennial Report)

25. A technical report, signed and sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations, shall be submitted to the Department approximately every two and one-half years during the active life of the facility, and every five years during the long-term care period. The report shall summarize and interpret the water quality-monitoring results and water level measurements collected since the last Technical Report. The report shall contain, at a minimum, the following [62-701.510(8)(b), F.A.C.]:

    a Tabular displays of any data which shows that a monitoring parameter has been detected, and graphical displays of any leachate key indicator parameters detected (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium and iron), including hydrographs for all monitor wells;
    b Trend analyses of any monitoring parameters consistently detected;
    c Comparisons among shallow, middle, and deep zone wells;
    d Comparisons between background water quality and the water quality in detection and compliance wells;
    e Correlations between related parameters such as total dissolved solids and specific conductance;
    f Discussion of erratic and/or poorly correlated data;
    g An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
    h An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

26. One (1) electronic copy (Adobe pdf format) of the MPIS Technical Report shall be submitted to the Department:

Report	Sampling Periods Covered	Number Of Semi-annual Sampling Events in Report	MPIS Technical Report Due
Interim Permit Report	February 2014 through February 2016	5	June 2016
Interim Permit Report	August 2016 through August 2018	5	December 2018
Interim Permit Report	February 2019 through February 2021	5	June 2021
Renewal Report	August 2021through August 2023	5	At the time of Operation Permit #0103935-015-SO/01 Renewal (Due January 1, 2024)

Requirements for Electronic Reporting of Water Quality Data

27. Required water quality monitoring reports and all ground water, and surface water analytical results shall be submitted as described in Attachment **D (ADaPT electronic reporting requirement)**. Required monitoring reports must be submitted to the Department within sixty (60) days from completion of laboratory analyses. [62-160.240 and 62-160.340, F.A.C.]

28. Monitoring Plan Implementation Schedule--Tracking versions for current permit period:

Date	Type	Notation
10/15/2003	Update	Arsenic groundwater quality standard decrease to 10 microgram per liter.
5/3/2004	Issuance	Validator electronic data deliverable request. Issued with permit SO42-0103935-007
12/6/2005	Modification	Specified semi-annual sampling month to February and August.
6/9/2006	Issuance	Issued with permit SF42-0103935-008
5/18/2007	Revision	Specified semi-annual monitoring report submittal due date within 60 days of lab analyses.
9/15/2008	Modification	Added 2 more monitoring wells. Issued with permit SO42-0103935-010
6/15/2009	Update	ADaPT electronic data deliverable and electronic submittal request.
3/05/2014	MPIS Operations Permit Renewal	• Updated per Chapter 62-701 F.A.C revision 8/12/2012 o Remove Leachate Sampling o Technical Reports due 2.5 years • Current ADaPT electronic reporting requirement language and contacts.

List of Attachments

Attachment A – Monitoring Well, Surface Water Sampling Point Lists

Attachment B – Monitoring Locations Map

Attachment C – Monitoring Well Completion Report Form

Attachment D – ADaPT Electronic Reporting Requirements

Attachment E – Ground Water Monitoring Report Certification Form

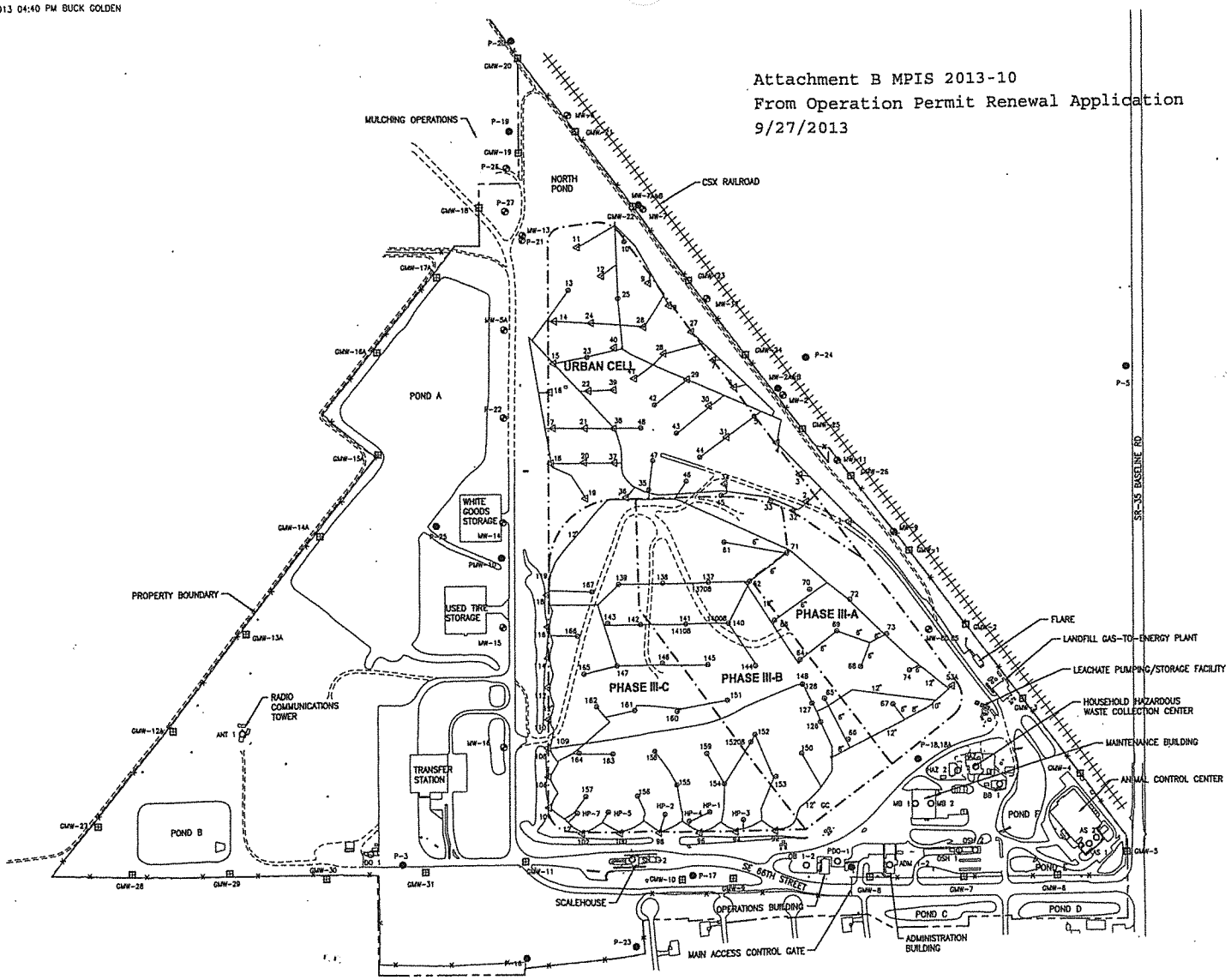
Attachment F – Water Sampling Log

ATTACHMENT A
BASELINE LANDFILL
WACS_FACILITY: 20906
MONITORING SITES

	Monitoring Site Number	WACS Well	Well Type	Zone/ Screen	GW/SW Class	WACS Report Type
Ground Water						
1.	MW-2	12803	CO	Floridan	G-II	SEMGW
2.	MW-5A	12859	CO	Floridan	G-II	SEMGW
3.	MW-6	12829	CO	Floridan	G-II	SEMGW
4.	MW-7	12798	CO	Floridan	G-II	SEMGW
5.	MW-8D	12819	CO	Floridan	G-II	SEMGW
6.	MW-9	12812	CO	Floridan	G-II	SEMGW
7.	MW-11	12831	CO	Floridan	G-II	SEMGW
8.	MW-12	12832	CO	Floridan	G-II	SEMGW
9.	MW-13	12833	CO	Floridan	G-II	SEMGW
10.	MW-14	12834	CO	Floridan	G-II	SEMGW
11.	MW-15	12862	BG	Floridan	G-II	SEMGW
12.	MW-16	12923	BG	Floridan	G-II	SEMGW
13.	P-17	12924	BG	Floridan	G-II	SEMGW
14.	P-21	12860	CO	Clastic	G-II	SEMGW
15.	P-22	12861	CO	Floridan	G-II	SEMGW
16.	P-26	21905	CO	Floridan	G-II	SEMGW
17.	P-27	21906	CO	Floridan	G-II	SEMGW

Well Type Codes:
(BG) Background
(CO) Compliance

Attachment B MPIS 2013-10
From Operation Permit Renewal Application
9/27/2013



LEGEND

- PROPERTY BOUNDARY
- LANDFILL BOUNDARY
- GAS COLLECTION PIPE
- UN-PAVED ROADS
- FENCE
- GMW-24 GAS MONITORING PROBE
- MW-14 GROUNDWATER MONITORING WELL
- P-5 GROUNDWATER PIEZOMETER (NOT ALL LOCATIONS SHOWN)
- MB 1 AMBIENT GAS MONITORING LOCATION
- 167 GAS COLLECTION WELL
- 118 ALTERNATE OPERATING WELL

-N-

GRAPHIC SCALE
0 100 200 400
SCALE IN FEET
1"=200'

PERMIT DRAWINGS

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED MPOLLMAN
DRAWN AGOLDEN
CHECKED MHADLOCK

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

MARION COUNTY BASELINE LANDFILL
OPERATIONS PERMIT
MARION COUNTY, FLORIDA
26 of 38

SITE PLAN

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
MARK D. HADLOCK
P.E. # 56871

DATE	PROJECT NO.
SEP 2013	13150-212-01
SCALE 1"=200'	DWG. NO. C4

PLOTTED: 9/26/2013 04:40 PM BUCK GOLDEN

SAVED: 9/26/2013 4:39 PM GBUCK \\JEACAD\DRAFTING\13150 MARION COUNTY\212 BASELINE OPS PERMIT RENEWAL\PERMIT DRAWINGS\13150212-C04.DWG

UPDATED OPERATION PLAN

MARION COUNTY
BASELINE LANDFILL
OPERATION PLAN

WACS I.D. Number: 20906
Permit Number: SO42-0103935-011

Prepared for:

MARION COUNTY BOARD OF COUNTY COMMISSIONERS
Marion County, Florida
601 SE 25th Avenue
Ocala, Florida 34471

Prepared by:

JONES EDMUNDS & ASSOCIATES, INC.
730 NE Waldo Road
Gainesville, Florida 32641

Certificate of Authorization #1841

January 2014
Updated March 2014

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EXHIBITS

EXHIBIT A-1 EMPLOYEE VERIFICATION/SIGNATURE PAGE
EXHIBIT A-2 WASTE RECORD FORM
EXHIBIT A-3 LEACHATE COLLECTION SYSTEM FORM
EXHIBIT A-4 LEACHATE DISPOSAL AGREEMENT

NOTICE

This document was written to comply with landfill permitting requirements as promulgated by the Florida Department of Environmental Protection (FDEP). These requirements are stated in Rule 62-701, Florida Administrative Code (FAC). The procedures described in this document must be performed according to the site-specific health and safety programs written in compliance with Occupational Safety and Health Administration (OSHA) 1910.146.

1.0 INTRODUCTION

1.1 PURPOSE

This document serves as the Operation Plan for the active Class I landfill at the Marion County Baseline Landfill. All new and existing landfill employees must read and understand this plan. Employees must follow the plan or disciplinary action up to and including dismissal will follow. Employees will be contacted when the plan changes due to Florida Department of Environmental Protection (FDEP) rules or local policy changes. A verification page included as Exhibit A-1 must be signed by each landfill employee.

1.2 FACILITY LOCATION

The Marion County Baseline Landfill is in the southeast corner of Section 1, Township 16 south, Range 22 east, with an approximate latitude of north 29° 07' and longitude of west 82° 03'. Figures 1.1 and 1.2 provide the general location and site layout for the Baseline Landfill. The operating hours for the Baseline Landfill are Monday through Saturday 7:00 AM to 5:00 PM, unless otherwise directed. Landfill personnel are on site during these periods.

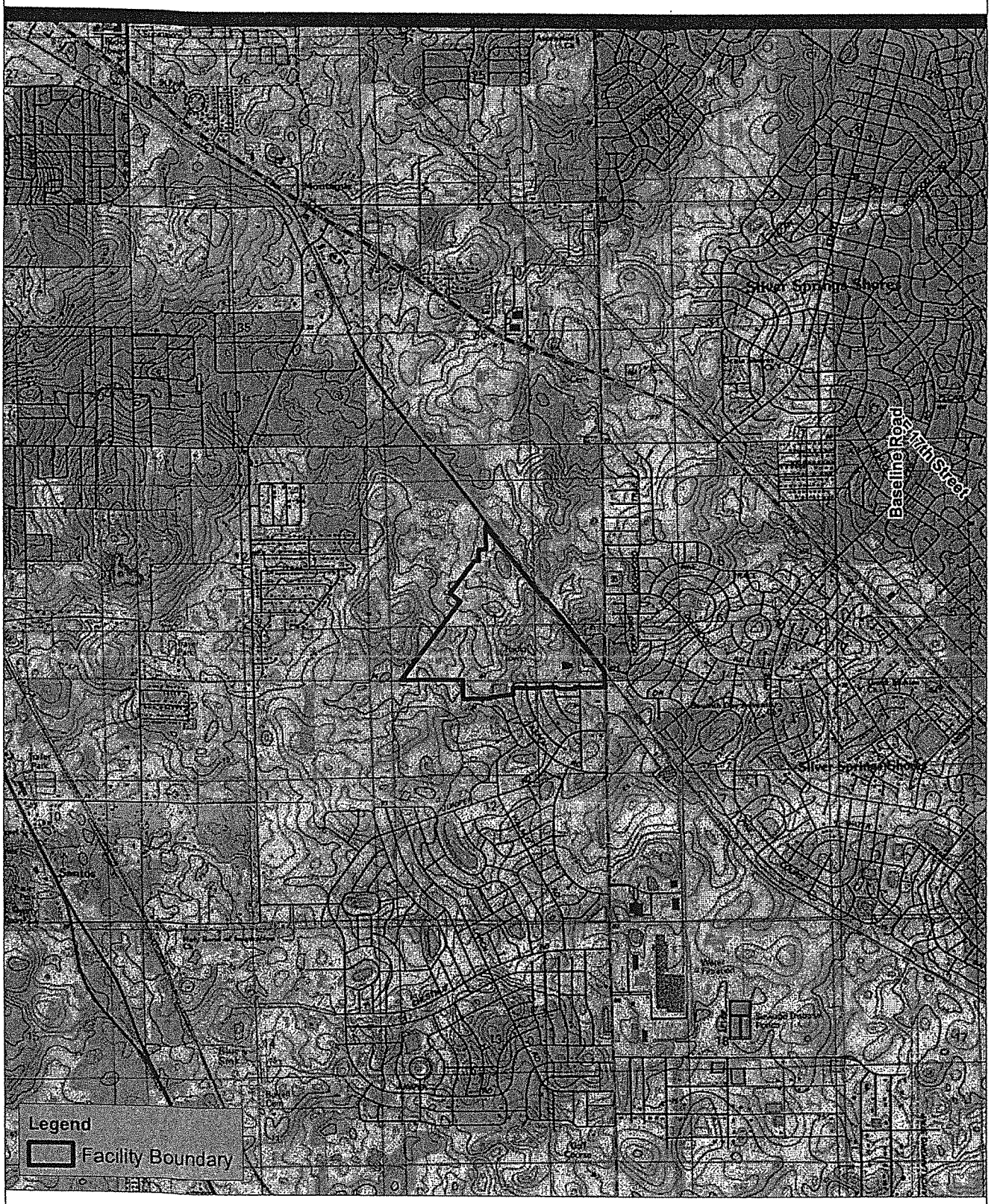
In addition to the active Class I landfill operation, the Baseline Landfill facility includes the following solid waste management activities:

- Landfill scale house operations.
- Maintenance of closed, unlined Class I landfill (Urban Cell).
- Yard waste processing.
- Recycled concrete stockpile for use in road maintenance.
- White goods and scrap metal collection for recycling.
- Whole waste tire storage for recycling.
- Recycling Center for citizen waste and recycling drop-off (Greenbox facility).
- Household hazardous waste (HHW) collection.
- Stormwater collection and treatment.
- Landfill gas collection and control system (GCCS), including landfill gas to energy (LFGTE) facility and candlestick flare.
- Groundwater monitoring.
- Landfill leachate collection, recirculation, and transport for disposal.
- Landfill gas migration control wells.
- Heavy equipment and vehicle maintenance.
- 100% recycle truck wash.
- Marion County Animal Services Division activities.

Figure 1-1

Site Location Map

Baseline Landfille Marion County, FL



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JONES EDMUNDS

For Informational Purposes Only Q:\ (GNVGISPROJECTS)\13150_Marion\212\mxd\Fig1.1_SiteLocationMap.mxd SAN 09/24/2013

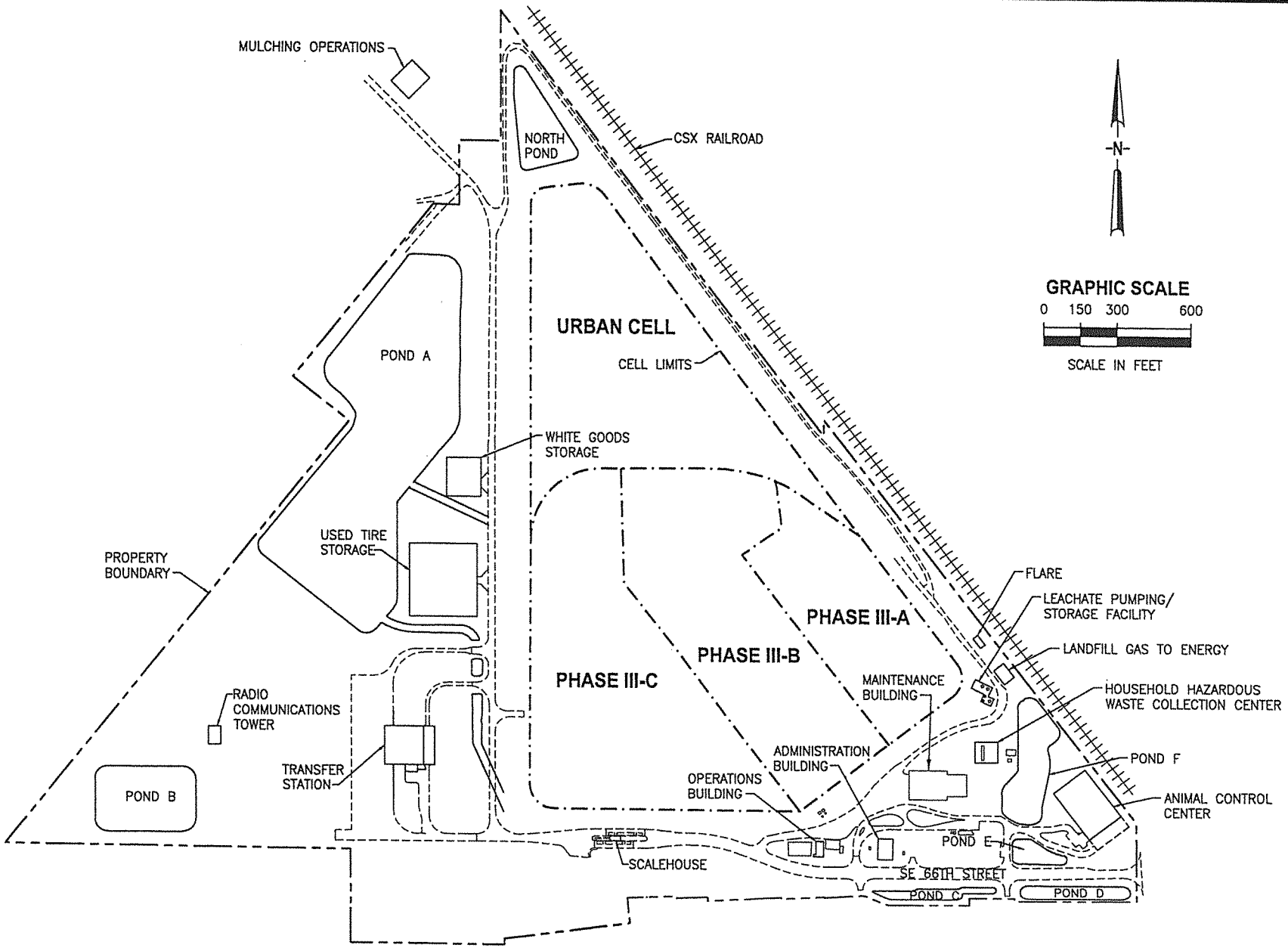

FIGURE 1.2
DISPOSAL AREA SITE PLAN
MARION COUNTY BASELINE LANDFILL

JONES EDMUNDS

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1.3 FACILITY HISTORY

The Baseline Landfill was opened and began operation in 1979. In 1982, Marion County entered into a solid waste management agreement with Urban Waste Disposal, Inc. to operate and maintain the County's landfill on Baseline Road. Marion County terminated the contract with Urban Waste in 1987 because Urban Waste was not operating the landfill in accordance with FDEP rules. At that time the now closed Urban Cell was the only disposal cell proposed for the site and accepting Class I solid waste. As part of a Consent Agreement with FDEP to correct problems at the landfill, the County agreed to construct a new lined landfill cell, prepare an operation plan, close the existing Urban Cell, implement a groundwater monitoring plan, and perform a contamination assessment of the groundwater at Baseline Landfill. Marion County initiated a project to expand the Class I facility south in what is called the *Phase III expansion*, which was constructed in three separate phases. Cell III-A was constructed and began operating in 1988. Cell III-B, the second portion of the three-phase expansion, was permitted in 1990 and began operating in 1991. The final phase, Cell III-C, was constructed and began operating in 1996. This Operation Plan is applicable to all three Phase III cells.

1.4 BOTTOM LINER CONSTRUCTION

The following summarizes the bottom liner construction for the active Baseline Landfill Cells III-A, III-B, and III-C.

Cell III-A bottom liner system was constructed with a saw-tooth leachate collection configuration from bottom layer to top layer:

1. Concrete filling of subsidence areas discovered during excavation to bottom liner grades.
2. Compacted 18-inch-thick soil proof-rolled with a 20-ton static sheepsfoot roller.
3. Compacted 1-foot-thick clay secondary barrier layer with a maximum permeability of 5×10^{-8} cm/sec.
4. Geosynthetic stabilization and filter layer.
5. HDPE drainage net as the secondary leachate collection/leak detection layer.
6. HDPE 100-mil-thick primary geomembrane liner.
7. Two-foot-thick sand drainage layer as the primary leachate collection layer.

Cell III-B bottom liner system was also constructed with a saw-tooth leachate collection configuration from the bottom layer to the top layer:

1. Extensive subsurface grouting in areas of loose soil determined based on a comprehensive subsurface investigation including drilling, cone penetration, and ground penetrating radar (GPR).
2. Compacted subgrade proof-rolled to 95% relative compaction.
3. Two layers of woven stabilization geosynthetics installed with the warp of the top layer at 90 degrees to the bottom layer.

4. Compacted 1-foot-thick soil layer.
5. Compacted 1-foot-thick clay layer with a maximum permeability of $5x10^{-8}$cm/sec.
6. HDPE 60-mil-thick secondary geomembrane liner.
7. HDPE drainage net as the secondary leachate collection/leak detection layer.
8. HDPE 60-mil-thick primary geomembrane liner.
9. Two-foot-thick sand drainage layer as the primary leachate collection layer.

Cell III-B bottom liner was tied in to the Cell III-A bottom liner at the west berm.

Cell III-C bottom liner system was also constructed with a saw-tooth leachate collection configuration from the bottom layer to the top layer:

1. Extensive subsurface grouting in areas of loose soil determined based on a comprehensive subsurface investigation including drilling, cone penetration, and GPR.
2. Compacted subgrade proof-rolled to 95% relative compaction.
3. Two layers of woven stabilization geosynthetics installed with the warp of the top layer at 90 degrees to the bottom layer.
4. Compacted 1-foot-thick soil layer.
5. Compacted 1-foot-thick clay layer with a maximum permeability of $5x10^{-8}$ cm/sec.
6. HDPE 60-mil-thick secondary geomembrane liner.
7. HDPE drainage net as the secondary leachate collection/leak detection layer.
8. HDPE 60-mil-thick primary geomembrane liner.
9. Two-foot-thick sand drainage layer as the primary leachate collection layer.

Cell III-C bottom liner was tied in to the Cell III-B bottom liner at the west berm.

1.5 PERMIT HISTORY

Table 1.1 summarizes the recent permit history for Baseline Landfill by permit number.

Table 1.1 Summary of Permit History			
Permit Number	Issue Date	Expiration Date	Description
SO42-0103935-013	03/29/2012	04/13/2014	Minor Modification of SO42-0103935-011 – Landfill Gas Management System Expansion
SO42-0103935-012	03/29/2012	04/13/2014	Minor Modification of SO42-0103935-011 – Landfill Gas Collection and Control System Improvements
SO42-0103935-011	07/15/2009	04/13/2014	Operate of the Marion County Baseline Landfill, Phase III, Class I which includes Cells III-A, III-B, and III-C.
SO42-0103935-010	03/18/2009	01/14/2009	Modification of Permit SO42-0103935-007 – side slope modification and vertical expansion of Class I
SO42-0103935-009	12/07/2007	08/29/2012	Operate Transfer Station – Waste Processing Facility
SF42-0103935-008	06/23/2006	05/25/2016	Post Closure Activities Urban Cell
SO42-0103935-007	05/05/2004	01/14/2009	Operate Class I Cells III-A, B, C
SO42-0103935-006	09/11/2002	07/25/2007	Construct / Operate Class I Transfer Station
SF42-0103935-005	07/09/2001	06/18/2006	Post Closure Activities Urban Cell
Unable to locate SO42-0103935-004 or SF42-0103935-004			
SO42-0103935-003	01/29/1999	12/09/2003	Operate Class I Cells III-A, B, C
SO42-0103935-002	04/01/1998	09/28/1998	Modification of Permit No.: SO42-238515. Modification of Cells III-A, B, C Wet Well Leachate Compliance Levels.
SF42-0103935-001	08/29/1997	10/16/2001	Modification of Permit No.: SF42-291549. Modification of Urban Cell stormwater letdown system and relocate landfill gas monitoring wells (information submitted 07/03/1997).
SF42-291549	10/17/1996	10/16/2001	Post Closure Activities Urban Cell
SO42-260391	01/24/1995	09/28/1998	Modification of Permit No.: SO42-197506. Modification of water quality sampling and analysis requirements.
SO42-260390	01/24/1995	09/28/1998	Modification of Permit Nos.: SC42-238514 and SO42-238515. Modification of water quality sampling and analysis requirements.
SO42-238515	03/29/1994	09/28/1998	Operate lined Class I landfill
SC42-238514	03/29/1994	09/28/1998	Construct Cell III-C Class I Expansion
SO42-197506	07/15/1991	07/15/1996	Operate Class I Cell III-B Expansion
SF42-149083	11/25/1991	09/10/1996	Close North Cell Class I (Urban Cell)
SC42-173589	08/20/1990	08/31/1991	Construct Class I Cell III-B
SC42-094401	09/16/1985	08/01/1990	Construct Class I Cell III-A
SO42-11603A	07/09/1984	N/A	Operate Baseline Landfill
SC42-81654	05/02/1984	N/A	Construct Baseline Class I Landfill
SC42-81653	05/02/1984	N/A	Construct Baseline Class I Landfill Resource Recovery Facility

2.0 LANDFILL OPERATOR AND SPOTTER TRAINING

Figure 2.1 shows the Marion County Baseline Landfill organizational chart. The day-to-day operations of the site are directed by the Solid Waste Operations Manager, who is assigned to the site full time. The Solid Waste Operations Manager is responsible for site personnel attendance and performance. As such, this individual directs the daily activities of the scale house operators and spotters, equipment maintenance personnel, and landfill equipment operators. Greenbox collection equipment operators are supervised by the Solid Waste Collections Supervisor. The Solid Waste Operations Manager and the Solid Waste Disposal Supervisor are certified Landfill Operators who have completed the training requirements of FDEP Rule 62-701.320(15), FAC. Marion County also employs five other trained landfill operators, one of whom will remain on site during the hours the landfill is accepting waste. The landfill will have at least one trained operator on site at all times the facility is open.

At least one trained equipment operator or spotter will be located at each working face of the landfill at all times the landfill receives waste. Scale house and compactor operators will be trained to perform load inspection and waste suitability screening. The equipment operator will be responsible for evaluating each load visually as it is dumped and serve as the spotter at the working face of the facility. Continuing education for landfill spotters and operators will be provided by FDEP-approved and Florida Solid Waste Management Training Committee (SWMTC)-certified courses at the TREEO Center at the University of Florida.

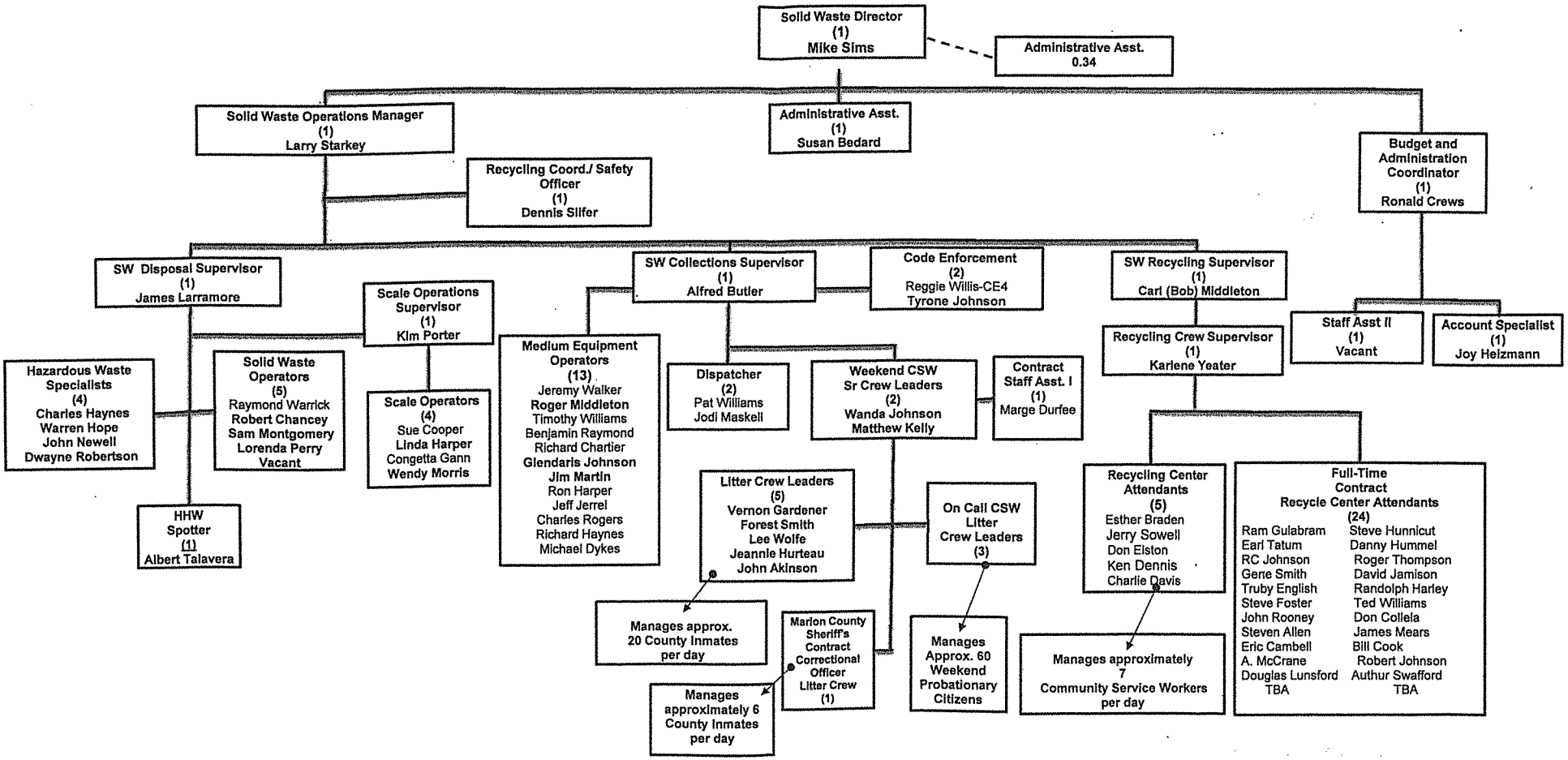
2.1 TRAINING COURSE SCHEDULE

Operator and spotter training will comply with Rule 62-701.320(15), FAC. New operators at the Baseline Landfill will participate in 24 hours of initial training that will include the *Manager of Landfill Operations (MOLO)* course, which provides 30 hours of approved SWMTC credit hours (SWMTC hours: 30). Every 3 years landfill operators will participate in continuing education courses totaling 16 hours of SWMTC-approved training. These courses may include the following:

- *Asbestos Awareness Course for Landfill Operators* (SWMTC hours: 4).
- *Groundwater Issues for Landfill Operators* (SWMTC hours: 6).
- *Hazardous Materials in Construction and Demolition Waste* (SWMTC hours: 6).
- *Health and Safety Training for Landfill Operations* (SWMTC hours: 5).
- *Landfill Gas and Leachate Systems* (SWMTC hours: 8).
- *Management of Leachate, Gas, Stormwater and Odor at Class I, II, and III Landfills* (SWMTC hours: 8).
- *Health and Safety Training for Hazardous Materials Activities: Eight-Hour OSHA Refresher* (SWMTC hours: 8).
- *Waste Screening and Identification for Landfill Operators and Spotters* (SWMTC hours: 8).

As of: 06/29/13

FIGURE 2.1
MARION COUNTY SOLID WASTE DEPARTMENT
ORGANIZATIONAL CHART
FY 13-14



New spotters will participate in 8 hours of initial training that will include *Spotting at Construction and Demolition Sites, Landfills, and Transfer Stations* (SWMTC hours: 8) and/or *Waste Screening and Identification for Landfill Operators and Spotters* (SWMTC hours: 8) conducted by the University of Florida TREEO Center. Every 3 years, landfill operators will participate in continuing education courses totaling a minimum of 4 hours. These courses may include the following:

- *Two-Hour Landfill Spotter Refresher Training* (SWMTC hours: 2).
- *Health and Safety Training for Hazardous Materials Activities: Eight-Hour OSHA Refresher* (SWMTC hours: 8).
- *Hazardous Materials Chemistry for the Non-Chemist* (SWMTC hours: 7).

The course descriptions are available on the internet at http://www.treeo.ufl.edu/solid-waste.aspx. The training certificates for all the landfill operators and spotters will be kept on file at the landfill in accordance with Rule 62-701.500(3), FAC.

2.2 OPERATIONS PLAN TRAINING

Included in the required training, all landfill personnel will be required to read the Marion County Baseline Landfill Operation Plan and FDEP Rule 62-701, FAC, and seek clarification of the plan and rules from the Solid Waste Operations Manager. A signature page verifying that an employee has read and understands both the Operations Plan and FDEP rules (available on the internet) is included as Exhibit A-1.

2.3 TRAINING RECORD KEEPING

Training records documenting how the training plan is being implemented are kept in the landfill's Administration Office and are available for inspection by FDEP staff. These records are updated as training is completed by the staff.

3.0 LANDFILL OPERATION PLAN

3.1 RESPONSIBLE OPERATION AND MAINTENANCE PERSONNEL

The Baseline Landfill is owned and operated by Marion County. Ultimate responsibility for operation of the landfill rests with the Marion County Board of County Commissioners. Figure 2.1 shows the chain of responsibility for the operation of the Baseline Landfill. Responsibility for overall management of the landfill facility rests with the Solid Waste Director, who is designated as the contact person for matters related to regulatory compliance.

The Solid Waste Director has the authority to obtain the necessary personnel to operate the site and provide for their training and orientation. The Solid Waste Director also determines the facility's need for equipment and initiates requests with the County to replace existing equipment or obtain new equipment. The Solid Waste Director is responsible for administrating the provisions of the site Operation Plan.

The Solid Waste Operations Manager will perform the duties and assume the responsibilities of the Solid Waste Director in the Director's absence.

3.2 CONTINGENCY OPERATIONS

Emergency conditions at the Baseline Landfill may be created by a natural disaster (i.e., hurricane, tornado, and/or flooding), equipment failure, or fire. If an emergency condition occurs, the landfill will follow the Solid Waste Emergency Management Plan (which is available to all County personnel) and the specific items addressed below. Table 3.1 is a list of Emergency Contacts.

Table 3.1 Emergency Contacts

Contact	Phone Number
Fire Emergency	911
Police Emergency	911
Hospital	911
Marion County Fire Rescue	352-291-8000
Marion County Sheriff	352-732-8181
Munroe Medical Center*	352-351-7200
Marion County Solid Waste Director/ 24-hour Site Manager	352-671-8465
FDEP Central District–Main Receptionist	407-897-4900
FDEP Central District–Solid Waste	407-897-4321
State Warning Point	800-320-0519

* Munroe Medical Center is located at 1500 SW First Avenue, Ocala, FL

During emergency conditions, the solid waste facility will be temporarily closed and waste will not be delivered to the site. In the event of a severe storm, hurricane, or other disaster, the Baseline Landfill is expected to remain operational, except during the actual event. The Solid Waste Director will decide when to close and reopen the facility. The following procedures will be initiated at the onset of a major storm:

- Six inches (minimum) of compacted daily cover will be applied to the active face.
- Landfill equipment will be parked near natural wind screens, such as earthen mounds. All lightweight signs and equipment will be collected and stored in a secure area.
- Depressed and eroded areas will be protected and the stormwater management system will be inspected, maintained, and cleaned out.
- Precautionary procedures will be taken before and after a storm to secure and inspect the leachate storage tanks.
- If 70-mph winds or more are predicted (i.e., a tornado, hurricane), storm preparations should include filling the tanks to an elevation of at least 12 feet, if possible, from the tank bottom, if the tanks are not already filled to this point. This volume of fluid has been computed to offset the overturning moment generated by a 110-mph wind. Filling the tanks to this level significantly reduces concerns regarding hold-down performance.

After storms, work will begin in dry areas only when operations are resumed; refuse materials will not to be deposited in standing water. The landfill will be inspected by the Solid Waste Director and Jones Edmunds personnel to ensure that all permit conditions are met. FDEP will be notified of any damages and proposed remediation.

Semiannually and following a design event (high wind), all components of the hold-down connection will be inspected for the following items and repaired as required:

- Visually check fiberglass "strap" that connects the steel hold-down lug to the tank. This connection component should not exhibit cracks, splits, or other signs of brittle failure.
- Visually check the steel hold-down lug for separation from the tank, cracks (particularly at the point where the lug bends), bending resulting in the lug angle exceeding 90 degrees, "slipping" from under the fiberglass strap, or other signs of duress.
- Visually check the plate that spans the hold-down lug for excessive bending over the lug and check the condition of bolt holes (cracks, out of round, etc.).
- Check the tightness of nuts at anchor bolts.
- Check for a snug-tight condition of steel plate shims.
- Check the circular area around connections for concrete cracking or spalling.
- Visually check all pipe connections, including pipe supports directly attached to the tank, for signs of failure, fatigue, or embrittlement of fiberglass components as part of the same inspection. Irregularities should be readily apparent in any of the

connection components. Of particular concern is the fiberglass strap, as it represents a potentially brittle-type failure.

Pre-storm preparation is recommended as a safety precaution and to protect this considerable investment. Although connection failure is certainly not expected, regular inspection will help ensure that system safety factors are maintained at an appropriate level.

The stormwater management system will allow disposal operations to continue during periods of inclement weather. Temporary berms, ditches, and grading will be used to drain stormwater from the active face of the landfill and into the perimeter stormwater swales.

The chance of fire occurring at a properly run municipal landfill is minimal. Fire protection facilities on site consist of soil stockpiles in the vicinity of the working face. The daily cover used in the landfill operation provides an effective firewall. Training and instructions in fire-fighting procedures should routinely be provided to site personnel.

If a fire occurs at the landfill, the application of additional compacted soil cover will be used to further reduce the flow of oxygen into the burning area. If this does not contain the fire, the affected area will be left alone until it is safe to enter. The local fire department will be contacted to assist site personnel.

Appropriate fire extinguishers should be carried on all equipment at all times and used to control any small equipment fire that may occur. These should be followed in the event of a landfill fire:

- Immediately call the fire department regardless of the apparent extent of the fire.
- Alert other facility personnel.
- Attempt to contain or extinguish the fire until the arrival of the fire department if proper training has been provided and it appears this can be done safely. All site personnel are directed not to attempt or perform any act that could increase the risk to life and safety to themselves or others or that would violate Marion County policies and any other applicable regulations.
- Fire-fighting methods include using hand-held fire extinguishers for small fires, smothering with soil, and spraying with water from the water truck or the local water system.

The following actions should be taken at the landfill following a natural disaster or fire:

- Landfill hours should be extended as necessary to meet the needs of the community.
- The FDEP Central District Office will be notified by telephone (407-894-7555) within 24 hours if any need for contingency operations arises. The call will be confirmed with a letter sent to FDEP within 7 days of the event.
- Necessary additional equipment should be rented such as a three-phase generator with proper connections to leachate sump pumps.

- Additional equipment operators and/or other personnel should be hired as required.
- Appropriate public notices should be issued.
- Local governmental bodies and local emergency agencies should be contacted as necessary.
- Any other measures that would permit the Baseline Landfill to reestablish service to the community should be taken on a timely basis.

3.3 CONTROLLING WASTE RECEIVED AT THE LANDFILL

3.3.1 Public Awareness of Unauthorized Waste Types

The first step in preventing unauthorized (non-Class I) waste from being delivered to and possibly disposed of at the facility is to inform the general public, private solid waste collection services, and County Greenbox collection operators which waste types are unauthorized at the Baseline Landfill:

- Hazardous wastes as specified by the US Environmental Protection Agency (EPA). EPA defines *hazardous waste* as that which exhibits flammability, corrosivity, reactivity, and/or toxicity; a copy of EPA's list of hazardous wastes is provided in Chapter 2, 40 CFR Part 261, Subpart D.
- Untreated biohazardous waste.
- Non-containerized liquid waste except household waste but not including septic waste.
- Lead-acid batteries.

3.3.2 Household Hazardous Waste

In addition to Class I solid waste, the Marion County Baseline Landfill also accepts household hazardous wastes such as used oils, paints, and lead-acid batteries at the Household Hazardous Waste Collection Center (HHWCC). These wastes are not deposited into the lined Class I landfill. County residents and private contractors who collect household hazardous waste from conditionally exempt generators bring hazardous materials to the Baseline Landfill HHWCC for disposal. Scale House Operators direct County residents and private contractors with hazardous waste to the HHWCC when they arrive at the landfill. Trained County personnel manage the waste delivered to the site and contact bonded contract haulers to remove hazardous waste from the site as needed.

Marion County also participates in State-approved Amnesty Days as defined and regulated by FS 403.7264. These days are set aside to allow homeowners, farmers, schools, state agencies, and small businesses to dispose of small quantities of hazardous waste free of charge.

3.3.3 White Goods Storage

White goods and scrap metal are temporarily stored on a concrete pad west of Cell III-C. Landfill personnel stockpile the white goods or scrap metal in an orderly fashion and police the area daily to discourage scavenging and removal of the waste material. An independent contractor is contacted as needed to transport these white goods off site for recycling.

3.3.4 Waste Tire Storage

Although not deposited in the lined Class I landfill, waste tires are accepted at the Baseline Landfill waste tire storage area. Waste tires are temporarily stored on a concrete pad west of Cell III-C. Waste tires, like white goods, are stockpiled by landfill personnel in an orderly manner and are transported off site for recycling by a contract hauler as needed.

3.3.5 Monitoring of Incoming Waste Loads

All vehicles entering the landfill to deposit waste must stop at the scale house to be weighed, visually observed, and directed to the appropriate area of the facility. The Scale House Operator (SHO) will question the driver of the vehicle about the type of waste load contained in the vehicle. The SHO will visually observe the vehicle for the presence of unauthorized waste. If the SHO suspects the presence of unauthorized waste, he/she will visually examine the load to the extent possible. If unauthorized waste is found in the load, the hauler will not be allowed to enter the facility and will be directed to a facility that can accept the waste. If no unauthorized waste is suspected to be present or found during a visual examination, the hauler will be directed to the appropriate disposal area. Figure 1.2 indicates the disposal areas for waste received at the facility.

Spotting, however, is not limited to the SHO. The SHO provides the first phase of a two-phase spotting program, which includes the SHO, a spotter at the working face, or the equipment operator. As waste is unloaded from a vehicle, the spotter or the equipment operator will watch for the presence of unauthorized waste or waste that is to be deposited in another area of the facility. If any hazardous waste is observed, the spotter or the equipment operator will secure the area and inform the Solid Waste Operations Manager of its presence. At the working face, the spotter can be the equipment operator.

If any regulated hazardous wastes are detected, FDEP, the person responsible for shipping the wastes (waste hauler) to the landfill, and the generator of the wastes, if known, will be promptly notified. The area where the wastes are deposited will immediately be cordoned off from public access. The waste hauler and generator will be directed to remove all unauthorized waste from the Baseline Landfill. If the generator or hauler cannot be identified, the landfill operator will ensure that the waste is cleaned up, transported, and disposed of at a permitted hazardous waste management facility. The landfill operator will take precautionary measures when accepting subsequent waste loads from sources found to be or suspected to be responsible for shipping regulated hazardous waste.

Other types of authorized waste observed during unloading in the landfill cell that are not permitted in the landfill cell (e.g., used tires, white goods, used oil) will be removed from the landfill cell by the hauler or by landfill personnel. These wastes will be transferred to the proper disposal area.

Table 3.2 provides a list of wastes accepted at the Baseline Landfill and their respective disposal areas.

Table 3.2 List of Authorized Waste

Type of Waste	Appropriate Disposal Area
Class I Waste	Class I Landfill
Class III Waste	Class I Landfill
Yard Trash/Wood Waste*	Mulching Processing Area
Used Tires	Waste Tire Storage Area
White Goods	White Goods Stockpile Area
Used Oil	Storage Tanks for Recycling (HHWCC)
Other Recyclables (Scrap Metal, Bicycles)	Recycling Stockpile Area
Special Wastes (Animals, Asbestos, Sediments, Sludges)	Class I Landfill (or other disposal method)
Household Hazardous Waste	HHWCC

*Yard trash may be disposed of in Baseline Landfill because the facility operates a landfill-gas-to-energy facility [Section 403.708(12)(c), FS]. Although not typically accepted, yard trash may be accepted during changes in yard trash operations or emergency conditions.

3.4 WEIGHING INCOMING WASTE

Solid waste entering the Baseline Landfill is weighed using a truck scale near the site entrance. Tare weights of the trucks are determined as the emptied vehicle leaves the site. Tare weights for County and franchise waste haulers that regularly visit the site are recorded so that they do not need to be weighed each time they leave the site. Daily waste records are compiled monthly (electronically or on the form in Exhibit A-2), which will then be provided to FDEP quarterly in accordance with FDEP Rule 62-701.500(4).

3.5 VEHICLE TRAFFIC CONTROL AND UNLOADING

3.5.1 Control of Access to Baseline Landfill

Access to the Baseline Landfill is provided at the site entrance on SE 66th Street. Access to fill areas is controlled by scale house personnel who are on duty during daily operating hours. Gates are used to limit access to the site and are locked when the landfill is not open for operation.

Traffic will enter the landfill site at the east gate where it will proceed to the scale. The scale is situated so that the scale house will be on the driver's left side, making the scale house accessible to the driver. From the scale, vehicles proceed to the active face of the landfill or other appropriate disposal areas. Signs have been posted to direct traffic to the appropriate areas.

3.5.2 Control of Access to the Active Landfill

Access to the active landfill is by the west access road. Garbage haulers and equipment operators are directed to controlled entrance points to the active area.

Once at the active face of the landfill, a spotter directs the waste hauler to the proper location to deposit refuse.

Once a vehicle has been emptied, it returns to the scale to be reweighed, if required, before leaving the site. Any commercial haulers or County vehicles whose tare weights have been previously recorded at the scale house exit the landfill directly after being emptied. All traffic will exit from the entrance on SE 66th Street.

3.6 METHOD AND SEQUENCE OF FILLING WASTE

3.6.1 General Filling

The active Class I Baseline Landfill that is available for landfilling activities is known as *the Cells III-A, B, C area*. Figure 1.2 shows the locations of Cells III-A, B, C. The general progression of landfilling proceeded from the Cell III-A cell until construction of Cell III-B, and then construction of Cell III-C. Landfilling operations has reached a consistent elevation in all three cells.

The cells and rows will be placed in a manner so that when initial and intermediate cover are applied to the completed daily cells and rows, stormwater will run off to the side slope benches and then to the perimeter stormwater swales. By filling the landfill cells in this manner, Baseline Landfill personnel will minimize leachate collected at the site.

3.6.1.1 Daily Cell Construction

The basic building unit used in operating a landfill is the daily cell. The daily cell is constructed exclusively of waste deposited at the landfill on a particular day. Waste is deposited in the cell and compacted as described in Section 3.7.

At the end of the day, initial cover or an approved alternate is applied to the cell (as described in Section 3.7) and the cell is completed. A new cell will be constructed on the following day.

The typical daily cell at the Baseline Landfill will be approximately 10 feet thick when completed. If necessary, the cell can be built thicker than 10 feet. The average cell will be approximately 75 feet wide and 40 feet long. These dimensions are based on the current waste input rate, compacted refuse density, and cover volume; the dimensions will change as these factors change.

At the beginning of a work day, the approximate dimensions of the cell will be established so that its final shape can be controlled.

3.6.1.2 Row Construction

A row consists of daily cells that are constructed end to end. A row is complete when it extends from one edge of the side slope to the other.

3.6.1.3 Lift Construction

A lift is created when enough rows are connected to create enough working space for operations to begin on top of the rows.

3.7 WASTE COMPACTION AND APPLICATION OF COVER

3.7.1 Waste Compaction

The waste at the Baseline Landfill is compacted by a Caterpillar 826C Landfill Compactor or equivalent. Once waste is dumped from the collection vehicles, it is pushed into layers not over 24 inches deep. The landfill compactor will then make as many passes as possible to achieve optimum density.

3.7.2 Cover

3.7.2.1 Initial and Intermediate Cover

The intent of initial cover is to minimize adverse environmental, health, and safety effects from birds, animals, waste, odor, fires, etc. The initial soil cover meets the requirements for a Class I landfill, including Rule 62-701.500(7)(e). A tarpaulin is used to cover daily cells where waste will be deposited within 18 hours.

In areas where active filling will not occur for 180 days or more, an additional 1 foot of intermediate soil cover will be applied within 7 days of cell completion. This layer may be removed before placing additional waste or installing final cover. Intermediate cover will be graded to promote stormwater runoff to the stormwater management system and to minimize the amount of leachate collected.

3.7.2.2 Final Cover

A final cover will restrict stormwater infiltration and control landfill gas. Typically, the final cover will consist of a low-permeability soil or geomembrane with a protective overlying vegetative cover and is installed over the entire surface after the final placement of waste. Drawing C-7 in Appendix B of the Marion County Baseline Landfill Operations Permit Renewal Application prepared by Jones Edmunds (September 2013) shows a typical final cover system

proposed as the conceptual final cover for Baseline Landfill, as described below (listed from top to bottom):

- Sod with a 6-Inch Vegetative Soil Layer—This layer promotes growth of vegetation. Vegetation is instrumental in preventing erosion of the final cover system.
- 18-Inch Soil Layer—Soil fill provides drainage for the topsoil layer and protects the closure geomembrane material. This layer serves as a moisture reservoir for the vegetation and controls moisture in the final cover.
- Geotextile—This layer serves as a barrier between the overlying protective soil layer and the underlying studded geomembrane.
- Closure Geomembrane—The geomembrane is the primary barrier component of the final cover system. Geomembranes restrict the vertical flow of water into waste. The geomembrane used for the closure of the Baseline Landfill will have permeability substantially equivalent to the bottom liner.
- 12-Inch Soil Layer—The soil layer below the geomembrane provides a protective cushion between waste and the geomembrane layer. This layer is generally the daily and intermediate cover unless additional soil is required.

A final closure permit application and plans for the Marion County Baseline Landfill will be submitted to FDEP within 90 days before the date when wastes will no longer be accepted at the landfill. The application will include drawings, details, specifications, procedures, etc., to close the facility in accordance with FDEP Rule 62-701.

3.8 OPERATIONS OF GAS, LEACHATE, AND STORMWATER CONTROLS

3.8.1 Operation of Gas Controls

Currently, gas collected from Cells III-A, B, C and the closed Urban Cell is conveyed to three internal combustion engines and generator sets (LFGTE facility). The flare station is maintained as a contingency if the engines are not operating or excess gas must be controlled. FDEP issued the permit to construct the first two engines on July 15, 2008.

This section is intended to only provide general information about the GCCS. Please refer to the North (Urban) Cell Closure Permit Modification permit plans and documents and the Title V permit plans and documents for detailed descriptions and plans of the facility's GCCS.

Operation of the GCCS requires extensive knowledge of and training in the system that is not included in this Operation Plan. The operation of the GCCS is primarily managed as part of the requirements for the site's Title V Air Operations Permit.

Necessary safety precautions will be used to prevent injury and other potential hazards to personnel working around or in the landfill in general and those specifically working on the active gas collection system due to the hazards associated with the presence of landfill gas.

Precautions will be taken against personnel working in an oxygen-deficient atmosphere as well as for fires and/or explosions from the possible presence of combustible gases. Personnel will be trained in health and safety issues, as described in Section 2.3.

3.8.2 Leachate Controls

Each of the lined cells has its own leachate collection and leak-detection system consisting of the same structural components. Please refer to the permit documents of each cell for a detailed description of the leachate collection and leak-detection systems (permit numbers are listed in Table 1.1). Leachate is pumped to the four leachate storage tanks where it is stored for hauling and disposal.

3.8.2.1 Description of Leachate Collection System and Leak-Detection System

The bottom liner systems for Cells III-A, B, and C are double-liner systems that include a composite clay barrier layer underlying the lowermost high-density polyethylene (HDPE) liner, a drainage net, and an upper HDPE liner (see Section 1.4). The uppermost portion of the liner system consists of the sand layer and the HDPE liner. As leachate percolates vertically through the refuse in the landfill, it enters the sand layer until it collects on the upper HDPE liner. The leachate collection laterals are perforated and collect leachate that accumulates on the upper HDPE liner. Because the pipe is perforated, sand must be prevented from entering the pipe and potentially clogging the pipe. Hence, the HDPE collection laterals are encased in clean river-run gravel and wrapped with an appropriate geotextile material. The geotextile material and the river-run gravel allow leachate to pass through while keeping sand outside the pipe. The leachate laterals connect to another pipe called *the leachate collection header pipe* (see Figures 3.1 through 3.3). The laterals for the collection pipe are sloped to drain into the leachate collection header. The header pipe then transports the collected leachate to the leachate collection wet wells. Each cell has its own leachate collection wet well.

The lower component of the bottom liner system consists of the drainage net, geotextile, secondary HDPE liner, and the clay barrier liner (see Section 1.4). Leakage through the primary HDPE liner is collected on the secondary HDPE liner and flows through the drainage net to a series of leak-detection laterals. These laterals are perforated HDPE pipes encased in gravel and geotextile (similar to the leachate collection system). The leak-detection laterals are connected to a header pipeline. This header pipe collects leachate from each of the leak-detection laterals and conveys the leachate to the leak-detection wet wells. Each cell has its own leak-detection wet well.

Leachate collected in the leachate collection wet wells is pumped to the leachate storage facility, which consists of four 30,000-gallon above-ground fiberglass storage tanks. Similarly, leachate collected in the leak-detection wet wells is pumped to the leachate storage facility. Each cell has separate leachate force mains from the leachate collection and leak-detection wet wells to the leachate storage tanks.

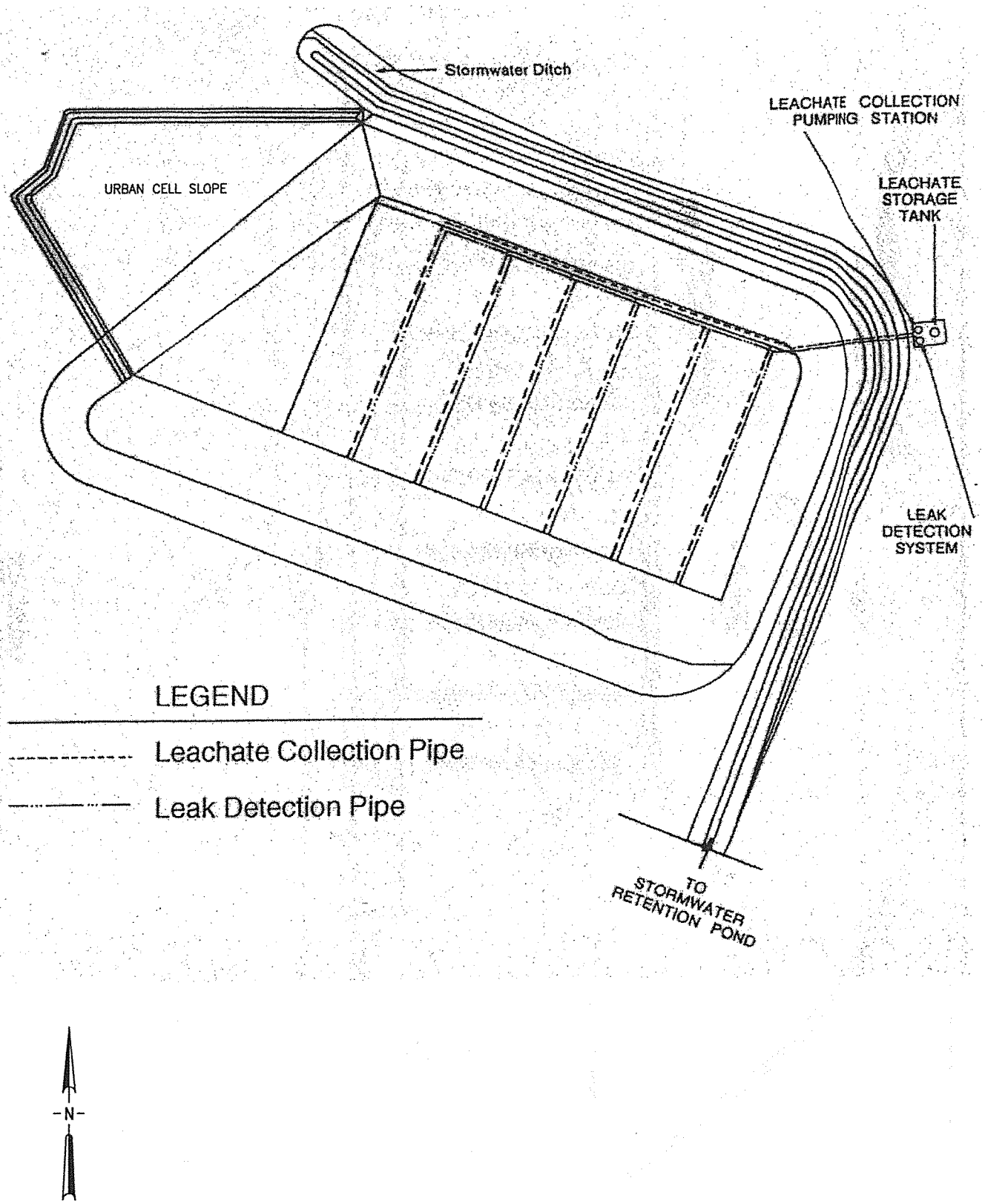


FIGURE 3.1
LEACHATE COLLECTION SYSTEM FOR CELL III-A
MARION COUNTY, FLORIDA

JONES EDMUNDS

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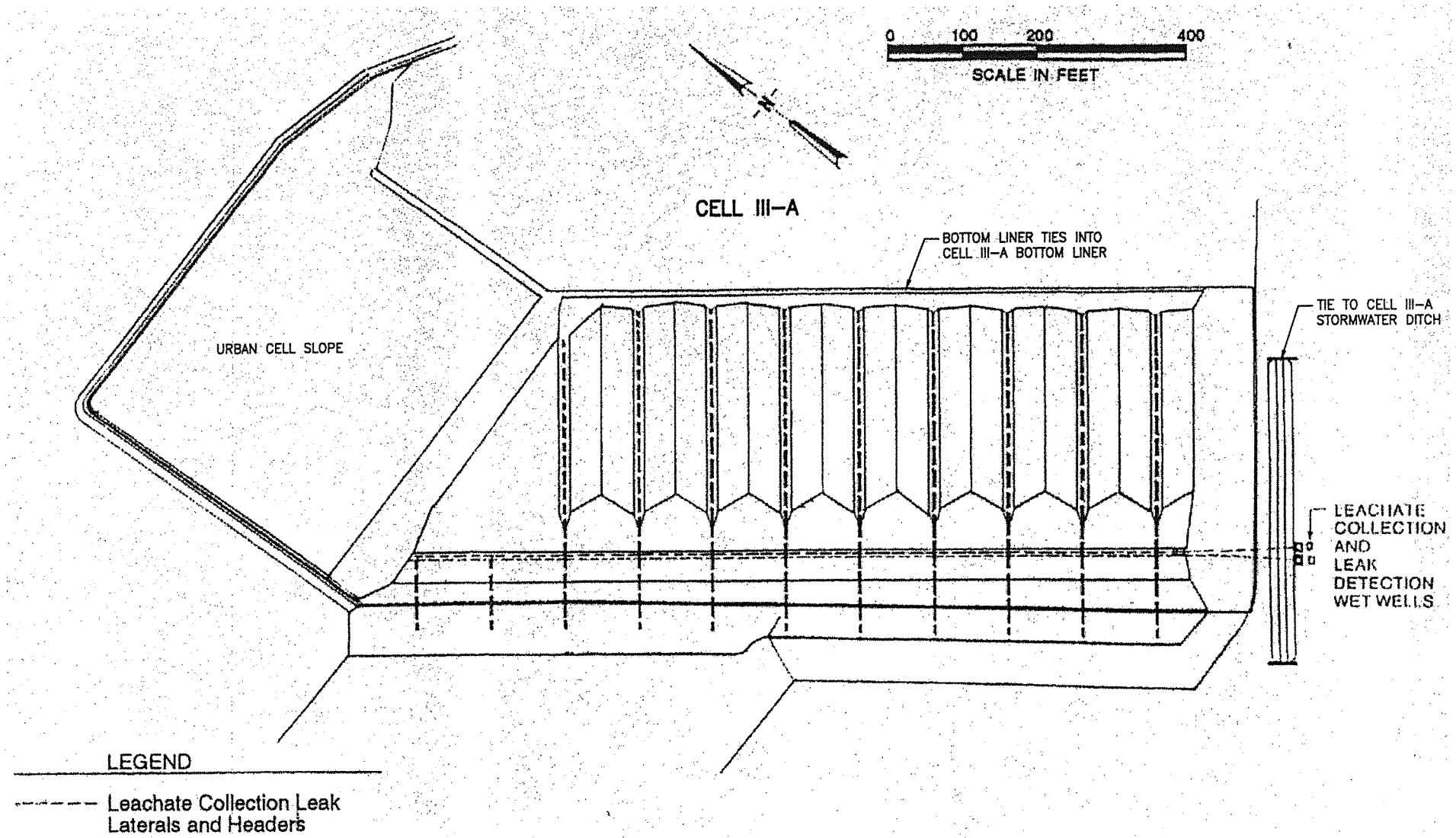

FIGURE 3.2
LEACHATE COLLECTION SYSTEM FOR CELL III-B
MARION COUNTY BASELINE LANDFILL

JONES E UNDS

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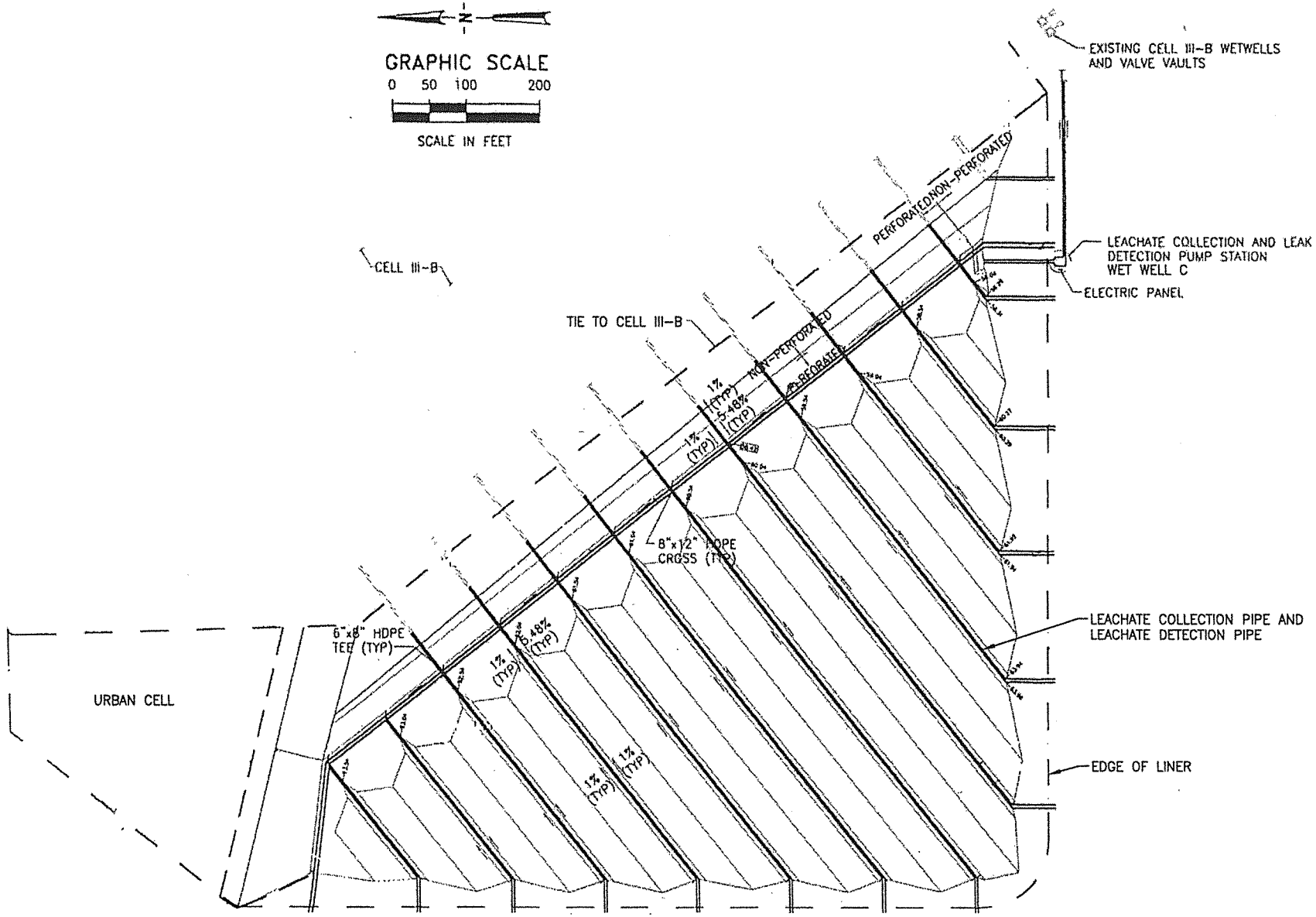

FIGURE 3.3
LEACHATE COLLECTION FOR PHASE III-C AREA
MARION COUNTY, FLORIDA

JONES EDMUNDS

13150-212-01

13150-210-01

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3.8.2.2 Description of the Leachate Storage System

Leachate is stored in the wet wells and pumped to the above-ground leachate storage tanks. Leachate levels in the wet wells will be maintained below permitted elevations.

Leachate collected in the above-ground fiberglass storage tanks is pumped to trucks for hauling to a wastewater treatment plant for disposal and/or recirculated back to the lined portion of the Class I landfill. Refer to Section 9.0 for more details of current and proposed leachate management operations employed by Marion County.

3.8.3 Operation of Stormwater Controls

The Baseline Landfill facility maintains six stormwater ponds (Figure 1.2). The Cells III-A, B, C stormwater is conveyed to the west to Pond A. All stormwater is collected and controlled on site and managed in accordance with the Environmental Resource Permit, permitted through FDEP Central District Submerged Lands and Environmental Resource Coordination Program. Stormwater is collected by a system of ditches and structures.

In accordance with Rule 62-701.500(7)(k), FAC, the landfill will begin repair of erosion that causes waste to be exposed or the stormwater management system to malfunction within 3 days and will complete the repair within 7 days. If major erosion cannot be repaired within 7 days, the County will notify FDEP and propose an erosion correction schedule for the repairs.

The stormwater system for the site is described in further detail in Section 11.0.

3.9 WATER QUALITY MONITORING

Water quality monitoring is detailed in the groundwater monitoring plan (GWMP) for the Baseline Landfill.

Water quality is monitored in accordance with FDEP Rule 62-701.510, FAC, and sampling and analysis information is reported to FDEP semiannually in accordance with Rule 62-701.510(8), FAC.

A log is kept detailing the amount of leachate removed from the leachate storage tanks, the date the leachate was removed from the tank, and the destination of the leachate (recirculation or name of treatment facility). Also, daily records of pump run times, leachate collection wet well surface elevations, leak detection wet well surface elevations, total flow as indicated on flow meters, and rainfall will be maintained. A copy of the leachate collection system form is provided in Exhibit A-3.

3.10 LEACHATE COLLECTION SYSTEM MAINTENANCE

The exterior of the leachate storage tanks are visually inspected weekly. If inspection reveals any deficiencies that could result in a leak or failure of the tank or any other leachate collection system equipment, remedial measures will be taken to prevent leakage or failure or otherwise correct the deficiency. If inspection of the leachate system indicates that a blockage may exist in the leachate lines, maintenance of the leachate lines will be scheduled. Maintenance measures may include jet-cleaning or video inspection. The leachate collection system is cleaned or inspected every 5 years in accordance Rule 62-701.500(8)(h). Results of the cleanings or inspections will be made available to FDEP upon request.

4.0 OPERATION RECORDS

Operating records consist of records, reports, analytical results, demonstrations, notifications, and construction or operation permits, including modification to those permits issued by FDEP and engineering drawings and supporting documentation. Additionally, operation records include the operation plan, safety plan, and training certificates. These records will be available for inspection at reasonable times by FDEP personnel.

5.0 WASTE RECORDS

Waste records for the landfill are also kept on site. These records include the total tons per day of solid waste received at the facility and estimates of household waste, commercial waste, construction and demolition debris, treated biohazardous waste, agricultural waste, industrial waste, yard trash, sewage sludge, industrial sludge, and water/air treatment sludges. Waste reports will be compiled monthly and submitted to FDEP at least annually. Currently, waste reports are submitted quarterly. Waste reports may be submitted electronically. Waste records will include the total tonnage per day of household waste, commercial waste, ash residue (if any), incinerator bypass waste (if any), construction and demolition debris (if any), treated biohazardous waste, agricultural waste, industrial waste, yard trash, sewage sludge, industrial sludge and water/air treatment sludges. The Waste Record to be submitted to FDEP reporting this information will be similar to Exhibit A-2.

6.0 ACCESS CONTROL

Access to the landfill is controlled by fencing and gates. The only access road to the landfill is SE 66th Street. The main gate into the facility blocks access on SE 66th Street when the facility is closed. Access to the facility is limited to SE 66th Street, via the scale house. SHOs are on duty at all times that the Baseline Landfill is receiving waste. SHOs manually operate gates to allow traffic into the landfill.

Road signs indicate access to the landfill and other facilities.

7.0 LOAD CHECKING PROGRAM

FDEP requires that a load checking program be implemented at landfills to detect and discourage attempts to dispose of unauthorized wastes. A landfill operator will examine at least three random loads of solid waste delivered to the landfill each week. Haulers selected by the operator for random load checking will be directed to a designated area within the facility to discharge the load that is to be inspected. The discharged material will be inspected thoroughly to detect any unauthorized waste.

If unauthorized wastes are found, the generator, hauler, or other party responsible for shipping the waste to the facility will be contacted to determine the identity of the waste sources. If any regulated hazardous wastes are identified, FDEP, the person responsible for shipping the wastes to the landfill, and the generator of the wastes, if known, will be promptly notified. The area where the wastes are deposited will immediately be cordoned off from public access. If the generator or hauler cannot be identified, the landfill operator will ensure that the waste is cleaned up, transported to, and disposed of at a permitted hazardous waste management facility. The landfill operator will take precautionary measures when accepting subsequent shipments from sources found to be or suspected to be responsible for shipping regulated hazardous waste.

Detailed written records of each random load check will be kept at the landfill for at least 3 years. Recorded information will include the following:

- The date and time of inspection.
- The name of the hauling firm and vehicle driver.
- The vehicle license plate number.
- The waste source as stated by the driver.
- Observations made by the inspector during the detailed inspection.

The written record will be signed by the inspector.

Inspectors, equipment operators, SHOs, and spotters will be trained to identify unauthorized wastes and potential sources of regulated hazardous wastes. The training will emphasize familiarity with containers and labels typically used for hazardous wastes and hazardous materials. Training courses will be provided for landfill personnel by the TREEO Center at the University of Florida (see Section 2.0).

8.0 SPREADING AND COMPACTING WASTE

8.1 WASTE LAYER THICKNESS AND COMPACTION FREQUENCIES

The waste at the Baseline Landfill is compacted by a Caterpillar 826C Landfill Compactor or equivalent. Once waste is dumped from the collection vehicles, it is pushed into layers approximately 24 inches deep. The landfill compactor will then make as many passes as possible over the refuse to achieve optimum density.

The dimensions of a daily cell fluctuate based on the amount of solid waste received at the facility on a given day. Based on calculations for the average daily quantity received at the facility, the average daily cell will have a thickness of 10 feet with 4:1 side slopes and be approximately 40 feet wide by 40 feet long. The working face will be wide enough to safely accommodate vehicles discharging but will not be too wide so that cover material will be minimized.

The approximately 10-foot-high daily cells are constructed side-by-side to create a horizontal lift. The working face of the cell and side slopes will not exceed 3 horizontal to 1 vertical rise (3:1). Lifts greater than 10 feet high may be constructed if specific operations require a higher lift or if the daily volume of waste must be accommodated at a restricted active face width. Safety precautions will be practiced when constructing higher daily cells and horizontal lifts.

8.2 SPECIAL CONSIDERATIONS FOR FIRST LAYER OF WASTE

Placement of the first layer of select waste over the bottom liner system is no longer applicable at Baseline Landfill. The first layer of waste placed after bottom liner construction was selected to prevent damage to the liner or leachate collection system.

8.3 INITIAL AND INTERMEDIATE COVER

Initial and intermediate soil cover material is stockpiled on site. The initial cover is intended to minimize adverse environmental, health, and safety effects from birds, animals, waste, odor, fires, blowing litter, etc. The minimum initial cover requirement for the Class I facility is 6 inches of compacted soil applied at the end of a working day except on the working face, which may be covered with temporary cover, including tarps, if solid waste will be placed within 18 hours. Initial cover materials include soil, soil mixed ground or chipped yard waste (mulch), mulch, and materials meeting requirements of Rule 62-700.500(7)(e), FAC. Typically a tarpaulin is used daily to cover waste where filling will begin within 18 hours.

In areas where active filling will not occur for 180 days or more, a minimum of 1 foot of intermediate soil cover, in addition to the 6 inches of initial cover, will be applied within 7 days of cell completion. This layer may be removed before placing additional waste or installing final cover. Intermediate cover will be graded to drain to promote stormwater runoff to the stormwater management system and to minimize the amount of leachate collected.

8.3.1 Procedures for Applying Initial Cover and Cover Frequency

Initial cover will be applied by loading an earth mover with stockpiled material, transporting the material to the active cell, dumping the material over the daily cell, and spreading the material into a minimum 6-inch layer over the active cell with a dozer or compactor. Alternatively, Marion County may also apply a tarpaulin to the working face when waste will be filled within 18 hours.

8.3.2 Procedures for Applying Intermediate Cover

Intermediate cover is applied in the same way as initial cover. A loader transports the acceptable soil material to the appropriate area within the landfill and deposits the material where directed by the dozer operator. The dozer operator spreads the intermediate cover material into a layer 1 foot thick or more in accordance with Rule 62-701.500(7)(g), FAC. The intermediate cover layer is applied to an area within 7 days of cell completion if additional waste will not be deposited within 180 days of cell completion. The intermediate cover layer will also be graded to drain into the stormwater swale on the side slopes. Grading the intermediate cover in this manner will help minimize the amount of leachate collected and managed.

8.4 TIME FRAMES FOR APPLYING FINAL COVER

Final cover for the landfill will be applied as part of landfill closure construction.

8.5 CONTROL OF SCAVENGING AND SALVAGING

Scavenging and salvaging are not allowed at the landfill. The prohibition of scavenging and salvaging is included in the landfill operator and spotter training. Personnel that are caught scavenging or salvaging are disciplined.

8.6 LITTER CONTROL METHODS

A litter policing operation is employed at Baseline Landfill to prevent litter from leaving the working area of the landfill. Litter will be picked up on property boundaries and as required in the immediate proximity of the landfill to control any problems that may arise from blowing debris from trucks traveling to the landfill. The landfill cells and the adjoining on-site areas are inspected for litter daily. Any litter discovered is picked up and properly disposed of the same day.

Portable fences have been installed to control blowing litter in the active landfilling area. If the described measures are not sufficient to control litter, additional measures will be developed and implemented by the Solid Waste Director or a designated representative.

8.7 EROSION-CONTROL PROCEDURES

Typically, all stormwater runoff that has not contacted refuse is drained from the active fill areas of the landfills and routed to the perimeter drainage ditches that surround the landfill. The stormwater ditches, culverts, and ponds are designed to convey, retain, and treat all stormwater runoff from a 100-year, 24-hour-duration storm event. Within the active portion of the landfills, all working areas are maintained and graded to allow stormwater to flow away from the active face of the landfill toward the perimeter drainage ditches. Erosion that exposes waste is corrected within 3 days of discovery. Corrective measures include replacing cover material and sodding. If the erosion that exposes waste cannot be corrected within 7 days of discovery, the landfill operator will notify FDEP and propose a plan and schedule for corrective measures.

The intermediate cover is sodded to control erosion. Interceptor berms and stormwater flumes on the site slopes are constructed to control the flow of runoff from the landfill surface to help prevent erosion.

Cells III-B and -C have an exposed geomembrane cover as partial closure. Side slopes of the partial covered area are no greater than 3:1 slope. The drainage areas adjacent to the exposed geomembrane cover have been grassed where practicable because the vegetation provides an effective method of erosion prevention. As mentioned above, the interceptor berms also provide a level of protection against erosion.

In Cell III-A, erosion is prevented by sodding the side slope and construction of interceptor berms and stormwater flumes to control stormwater flow. As necessary, silt fences will be used to help prevent erosion.

9.0 LEACHATE MANAGEMENT

9.1 LEACHATE LEVEL MONITORING

The monitoring of the level of fluid over the liner required by permit will be performed as described below.

The fluid level in the leachate collection and leak-detection wet wells will be recorded daily in gallons per day in accordance with Rule 62-701.500(8)(f), FAC. Inspection of each pumping station should also include visually checking the pump panel and documenting any irregular indicator (i.e. the red "HIGH-HIGH" light on the panel is illuminated and the accompanying audible horn has sounded). If this light or the horn is on, pump operation should be checked. Also, if the light or the horn is on, additional fluid elevation monitoring should be performed.

If the "HIGH HIGH" control panel light and horn do not activate, the written record of monitoring may be reduced to once a week. Daily recording should resume if the "HIGH HIGH" warning systems are activated and continue until the fluid elevation is below the "HIGH HIGH" elevation, after which recording weekly may resume.

The maximum allowable leachate levels in the wet wells, corresponding to Rule 62-701.400(3)(c), FAC, are provided in Table 9.1.

Table 9.1 Maximum Leachate Surface Elevation

Wet Well	Wet Well Leachate Surface Elevation
A Collection	62.00 feet NGVD
A Detection	61.00 feet NGVD
B Collection	57.97 feet NGVD
B Detection	56.97 feet NGVD
C Collection	59.00 feet NGVD
C Detection	58.00 feet NGVD

9.2 OPERATION OF THE LEACHATE COLLECTION AND REMOVAL SYSTEM

Marion County operates the leachate collection and removal system and maintains the system as designed to effectively control leachate produced in the landfill so that water quality standards and criteria are not violated. Operation of the leachate collection and removal system is automated. Float switches in each wet well turn pumps "ON" and "OFF." As leachate levels rise in the wet well to a specified set point elevation, the switch turns the pump on and leachate is pumped to the storage tanks southeast of the Phase III-A cell. As the leachate level falls in the sump, the switch turns the pump off when the float falls below the lower set point. If, however, the leachate storage tanks are full, the "Tank Full" switch on the leachate storage tank overrides the pump float switches and leachate continues to accumulate in the wet wells.

Leachate generated and collected at the site is managed primarily by trucking the leachate to the Aqua Clean, Inc. wastewater treatment facility in Lakeland, Florida. If Aqua Clean cannot haul the leachate to their facility, leachate may also be recirculated or pumped to the County Silver Springs Shores wastewater treatment plant.

Loading of leachate from the above-ground storage tanks to the truck-loading station is through a gravity line that automatically records gallons per load. The loading operations are continually monitored to prevent accidental spills.

If the leachate storage tanks are full and leachate levels in the leak detection wet wells approach the maximum compliance levels indicated in Section 9.1, leachate in the leak-detection wet wells will be pumped to the leachate collection wet wells to maintain/minimize head on the lowermost liner.

9.3 PROCEDURES FOR MANAGING LEACHATE IF IT BECOMES A REGULATED HAZARDOUS WASTE

If leachate does become a regulated hazardous waste, it will be handled, manifested, transported, and disposed of in accordance with Rule 62-730, FAC.

9.4 AGREEMENTS FOR OFF-SITE DISCHARGE AND TREATMENT OF LEACHATE

The Marion County Solid Waste Department has a long-term agreement with the Aqua Clean of Lakeland, Florida to transport and treat the leachate from the Baseline Landfill facility. A copy of the agreement is provided as Exhibit A-4.

9.5 CONTINGENCY PLAN FOR MANAGING LEACHATE

The leachate system consists of many parts and features, each of which may experience operational problems over the life of the landfill. In the event of any operational problems, Baseline Landfill personnel will first ascertain the source of the problem and then implement the proper corrective procedures.

The Baseline Landfill has an agreement with the Marion County Wastewater Facilities for leachate disposal in addition to a leachate treatment and trucking contract with Aqua Clean. Leachate may also be re-circulated as needed in the event of high volumes after a tropical storm or hurricane or to reduce disposal costs.

As mentioned earlier, the leachate system consists of four 30,000-gallon leachate storage tanks. These tanks were not designed to store the total amount of leachate generated during a single storm event. Rather they function to temporarily store a limited volume of leachate and provide a working volume for leachate management activities. Leachate collected in the wet wells is automatically pumped into the storage tanks when floats in each wet well reach the upper set point. If the tanks are full, the "Tank Full" switch overrides the wet well float switches and

leachate continues to accumulate in the sumps. As the leachate level in the leak detection wet well rises to the maximum permitted elevation, landfill personnel will bypass pumping to the storage tanks and pump into the leachate collection wet wells. By pumping the leachate from the leak detection sump to the leachate collection wet well, the bypass reduces the head on the bottom liner.

If pumps in the existing wet wells fail, Baseline Landfill personnel will investigate the nature of the failure and correct the problem. However, in the interim Marion County has an open purchase order agreement and can get a temporary pump from local suppliers to help manage leachate.

9.6 PROCEDURES FOR RECORDING LEACHATE GENERATED

Baseline Landfill personnel record the pump run time at each wet well daily. Knowing the pump flow rate at each wet well location and comparing this information with the actual pump run times, landfill personnel may estimate the leachate volume pumped. Additionally, landfill personnel record the flow (totalized) from flow meters on each leak-detection force main. The monthly record form is provided in Exhibit A-3.

Landfill personnel also record the daily totals for each truck load.

9.7 PROCEDURES FOR COMPARING PRECIPITATION WITH LEACHATE GENERATED

Marion County operates a weather monitoring station that continuously records wind speed and direction, temperature, and precipitation. Weather records will be kept on site and can be compared directly with the previously mentioned daily records on leachate generation.

9.8 PROCEDURES FOR CLEANING OR INSPECTING LEACHATE COLLECTION LINES

If inspection of the leachate collection system indicates that a blockage may exist in the leachate lines, maintenance of the leachate lines will be scheduled. Maintenance measures may include jet-cleaning or video inspection. Results of the cleanings or inspections will be made available to FDEP upon request. Routine jet-cleaning or video inspections will be scheduled every 5 years.

10.0 GAS MONITORING

Gas monitoring is implemented to assess methane gas levels relative to the following FDEP thresholds:

- Methane gas concentrations should not exceed 25% of the lower explosive limit in structures on or off site.
- Methane gas concentrations should not exceed the lower explosive limit at or beyond the landfill property boundary.
- Methane gas concentrations should not cause objectionable odors at or beyond the landfill property boundary.

Gas monitoring wells are located at various locations at the landfill property boundaries (see Drawing C-4, Appendix B). These wells were located based on soil, hydrogeologic, and hydraulic conditions at the site and the locations of facility structures and property boundaries. Care should be taken when working around the gas monitoring wells as the presence of methane may produce an explosive hazard.

Baseline Landfill personnel monitor and record the amount of methane and other gases quarterly in the gas monitoring wells. Personnel also monitor and record the concentration of methane gas in structures on the landfill property. The results are reported to FDEP.

11.0 STORMWATER MANAGEMENT SYSTEM

Typically, stormwater runoff that has not contacted waste is drained from the active fill areas of the landfills and routed to the perimeter drainage ditches that surround the landfill. The stormwater ditches and culverts are designed to convey stormwater runoff from a 100-year, 24-hour storm event. These ditches are designed to receive the stormwater runoff from the landfill cells and paved areas and roads for collection in the ponds. The stormwater retention ponds are designed to retain stormwater for a 100-year, 24-hour storm event.

Within the active portion of the landfills, working areas are maintained and graded to allow stormwater that has not come into contact with waste to flow away from the active face of the landfill toward the perimeter drainage ditches. Interceptor berms and stormwater flumes are constructed to control the flow of runoff from the landfill surface to prevent erosion. The closed Urban Cell has a series of permanent swales and structures to control stormwater and prevent erosion.

Perimeter drainage ditches adjacent to the landfill cells convey stormwater to the stormwater ponds (Drawing C-3, Appendix B). The ditches are maintained by cleaning out sediment as needed. The following maintenance activities should be performed as needed to ensure the proper collection and storage of stormwater:

- Conveyance swales and ditches will be kept cleared of dense vegetation, debris, and trash that would impede the flow of stormwater runoff.
- Grassed conveyance swales and ditches will be maintained to prevent erosion by sodding, seeding, and mulching.
- Culverts and stormwater structures will be cleaned, repaired, or replaced to maintain adequate stormwater flow.
- Stormwater pond side slopes and berms will be mowed and kept clear of vegetation that would impede the discharge or receiving of stormwater.
- Stormwater structures, conveyances, and ponds will be maintained in accordance with the requirements of the Environmental Resource Permit ERP42-019435-002 and incorporated documents.

12.0 LANDFILL EQUIPMENT

12.1 SUFFICIENT EQUIPMENT FOR EXCAVATING, SPREADING, COMPACTING, AND COVERING WASTE

The equipment used at the Baseline Landfill is sufficient in number and of a type suitable for placement and compaction of refuse, hauling of borrow, and earth-hauling trucks or pans. Other on-site equipment is available to provide grading, road construction and maintenance, equipment maintenance, and other needs as required. Equipment is sized appropriately to maintain site daily operations and ancillary functions as required. Table 12.1 lists equipment for regular site operation. Additional equipment is often loaned from the Marion County Roads Department, including excavators and scissor lifts.

Table 12.1 Equipment

Equipment Number	Description	Type
LF-11	John Deere 744	Loader
TS-11	Caterpillar 966	Loader
CP-1	Caterpillar 826H	Compactor
LF-49	Caterpillar D6N	Dozer
BD-1	Caterpillar D6N	Dozer
BD-3	John Deere 744	Dozer
WT-6	98 Freightliner	Water Truck
LF-19	Lift King	Fork Lift
SW-91	03 Mack	Clam Bucket
SW-93	03 Mack	Clam Bucket
SW-94	05 Mack	Clam Bucket
SW-95	05 Mack	Clam Bucket
SW-96	11 Mack	Clam Bucket

12.2 RESERVE EQUIPMENT

Baseline Landfill has sufficient reserve equipment to continue operating in the event of equipment failure. If a primary piece of equipment breaks down, the reserve equipment is mobilized to continue the operation. The primary piece of equipment would then be repaired on site or sent to a service facility for repairs. If backup equipment is not available for the necessary landfill operations, it will be available from local equipment suppliers within 24 hours.

If the leachate collection system or the leachate detection pumps fail, the service center listed in the equipment manual will be contacted for repairs.

12.3 COMMUNICATION EQUIPMENT

Baseline Landfill equipment is equipped with a fixed, two-way radio for communication. Additionally, spotters, supervisors, and managers have portable two-way radios. The

Administration and Operation offices are equipped with land-line telephones and landfill personnel have mobile phones.

12.4 DUST CONTROL METHODS

Baseline Landfill personnel use the water truck to apply water to the roads and unloading areas as necessary to control dust at the landfill.

12.5 FIRE PROTECTION CAPABILITIES AND PROCEDURES

Instructions in fire-fighting procedures should be routinely provided for site personnel. If a fire occurs at the landfill, additional compacted cover will be applied to cut off the flow of oxygen to the burning area. If this does not work to contain the fire, the affected area is to be left alone.

Appropriate fire extinguishers are on the equipment to control any small equipment fire that may occur. The following is a checklist of the procedures to be followed in the event of a landfill fire:

- Immediately call the fire department regardless of the apparent extent of the fire.
- Alert other facility personnel.
- Attempt to contain or extinguish the fire until the arrival of the fire department if proper training has been provided and it appears this can be done safely. Personnel are directed not to attempt or perform any act that could increase the risk to life and safety to themselves or others or that would violate Marion County policies and any other applicable regulations.
- Fire-fighting methods include using hand-held fire extinguishers for small fires, smothering with soil, and spraying with water from the water truck or the local water system.

The following actions should be taken at the landfill following a natural disaster or fire:

- Landfill hours should be extended as necessary to meet the needs of the community.
- The FDEP Central District Office will be notified by telephone (407-894-7555) within 24 hours should any need for contingency operations arise. The call will be confirmed with a letter sent to FDEP within 7 days of the event.
- Necessary additional equipment will be rented.
- Required additional equipment operators and/or other personnel should be hired.
- Appropriate public notices will be issued.
- Local governmental bodies and local emergency agencies will be contacted if necessary.
- Any other measures that would permit the Baseline Landfill to reestablish service to the community will be taken on a timely basis.

12.6 LITTER-CONTROL DEVICES

Litter will be picked up on property boundaries and as required in the immediate proximity of the landfill to control any problems that may arise from blowing debris from trucks traveling to the landfill. The landfill cells and the adjoining on-site areas are inspected daily for litter. Any litter discovered is picked up and properly disposed of the same day.

Portable fences installed around the active fill area helps to control blowing litter. If the described measures are not sufficient to control litter, additional measures will be developed and implemented by the Solid Waste Director or a designated representative.

12.7 LANDFILL SIGNS

Signs are used to inform the public of important information concerning the Baseline Landfill. A sign to provide information on operating hours, holidays observed, etc., is near the entrance of the landfill. Figure 12.1 depicts the sign.

Barricades are used at the Baseline Landfill to control traffic to and from the site and the active faces of the landfill. Traffic to and from the site is controlled by a perimeter fence. Gates constructed at the roadway entry point are always locked outside normal working hours. Incoming waste haulers are required to pass the scale house to gain entry to active portions of the landfill. Once on site, traffic is directed by signs and portable traffic type barricades to the active faces of the landfill.

Figure 12.1 Landfill Sign for the Marion County Baseline Landfill

Marion County Baseline Landfill

(Operated by Marion County Board of County Commissioners)

OPERATING HOURS

Monday – Saturday	7:00 am to 5:00 pm
Sunday	CLOSED

Tipping Fees (per ton)	
Minimum Charge:	$2.00
Class 1/Class 3:	$42.00
Yard Waste:	$25.00
Dead Animals:	$42.00
Tires:	$95.00
Special-Handling Waste:	$100.00

13.0 ALL-WEATHER ACCESS ROADS

The on-site landfill service roads are all-weather roads and are graded limerock or paved asphalt. A concrete apron is provided in the vicinity of the scale. Roads are maintained for use in adverse weather conditions to allow access to monitoring devices, stormwater controls, landfill inspectors, and fire-fighting vehicles.

14.0 ADDITIONAL RECORD KEEPING

Records or information used to develop or support the permit applications and any supplemental information submitted to comply with FDEP Rule 62-701, FAC, pertaining to construction and operation of the landfill are retained in the Administration Office on the landfill property or in an alternate location. These records are easily accessible if the County or FDEP needs information contained in them.

Operating records, reports, analytical results, demonstrations, notifications, and permit applications will be prepared in accordance with FDEP Rule 62-701, FAC. Any construction, operation, and closure permits, including all modifications to those permits, issued by FDEP, along with the engineering drawings and supporting information and the training verifications required, will be maintained in the Operation Record for the landfill. The Operation Record will be available for FDEP inspection at reasonable times.

Records of monitoring information, including calibration and maintenance records, original chart recordings for continuous monitoring instrumentation, and copies of reports required by permit, will be retained for at least 10 years. Background water quality records will be kept for the design period of the landfill.

An annual estimate of the remaining life and capacity in cubic yards of the existing and constructed landfill will be maintained. The annual estimate will be based on a summary of the heights, lengths, and widths of the solid waste disposal units. The estimate is made and reported annually to FDEP.

Records more than 5 years old will be archived in a storage area that is accessible during regular business hours and can be retrieved upon request within 7 days.

EXHIBIT A-1

EMPLOYEE VERIFICATION/SIGNATURE PAGE

Employee Verification

I, _____, have read all sections of the Marion County Baseline Landfill Operation Plan and the Florida Department of Environmental Protection rules (62-701) pertaining to Class I landfill activities. I also acknowledge that when I did not understand certain aspects of landfill activities or Department rules, I sought clarification of those activities and rules from the Solid Waste Operations Manager. I understand the operations of the landfill and FDEP rules and I will strive to implement those rules as necessary to perform my specific job at the landfill.

Signed:_____ Date:_____

EXHIBIT A-2

WASTE RECORD FORM

Marion County Baseline Landfill
Daily Waste Record Log

Month

Date	Household Waste	Commercial Waste	Ash Residue	Incinerator By-Pass Waste	Constuction & Demolition Debris	Treated Biohazardous Waste	Agricultural Waste	Industrial Waste	Yard Trash	Sewage Sludge	Industrial Sludge	Water/Air Treatment Sludge
1												
2												
3												
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EXHIBIT A-3

LEACHATE COLLECTION SYSTEM FORM

LEACHATE PIPELINE READINGS
DATE:
READINGS BY: HAZARDOUS WASTE DIVISION

Date	Time	Total Flow (Gallons)	Flow Rate (GPM)	Tank Level PSI	Rainfall	Daily Total Recirculation	Daily Total Sent to City
Ttl Gallons							
for Month:							
*Month Average Daily Leachate Flow Rate							

*(Rate=Total gallons divided by # days in month)

EXHIBIT A-4

LEACHATE DISPOSAL AGREEMENT

AGREEMENT BETWEEN OWNER AND CONTRACTOR

This Agreement, made and entered into September 21,2010, by and between Marion County, a political subdivision of the State of Florida, (hereinafter referred to as the "COUNTY") and **Aqua Clean Environmental Co, Inc**, located at 3210 Whitten Rd, Lakeland, FL 33811, possessing FEIN# 54-1803483 (hereinafter referred to as the "CONTRACTOR") under seal for Baseline Landfill Leachate Transportation and Disposal, (hereinafter referred to as the "PROJECT"), and the COUNTY and the CONTRACTOR hereby agreeing as follows:

WITNESSETH:

In consideration of the mutual covenants and promises contained herein, the COUNTY and CONTRACTOR (the "PARTIES") hereto agree as follows:

Section 1 – Term. This Agreement shall commence upon Notice to Proceed, and shall continue for a term of five (5) years. Pending mutual agreement, and Board approval, this contract may be extended for two (2) renewals of one (1) year each.

Section 2 – Scope of Services. As per specifications and requirements of project 10P-201, the CONTRACTOR shall haul leachate from the Baseline Landfill and dispose of as detailed in the specifications attached herein as Exhibit A, and according to the timeframe as noted herein.

Section 3 – Compensation. The COUNTY shall make payment to the CONTRACTOR based on the Compensation Schedule attached herein as Exhibit B. The CONTRACTOR shall accept the COUNTY'S Visa procurement card (p-card) as determined by the Utilities Department to be in the best interest of the COUNTY, and shall not charge any additional fee or service charge of the services described in Section 2 of this agreement.

Section 4 – Laws, Permits, and Regulations. Prior to the performance of any work hereunder, the CONTRACTOR shall obtain and pay for all licenses and permits, as required to perform the services described in Section 2 of this Agreement. CONTRACTOR shall at all times comply with all appropriate laws, regulations, and ordinances applicable to the services provided under this Agreement.

Section 5 – Assignment. The CONTRACTOR may not subcontract all or any part of this Agreement to without written approval by the COUNTY.

Section 6 – Notices. Except as otherwise provided herein, all notices and other communications provided for hereunder shall be in writing and sent by certified mail return receipt requested, or by hand deliver, and shall be deemed effective if mailed, when deposited in a United States Postal Service mailbox with postage prepaid or if hand delivered, when personally handed to the Party to whom the notice or other communication is addressed, with signed proof of delivery. The COUNTY'S and the CONTRACTOR'S representatives for notice purposes are:

CONTRACTOR: Aqua Clean Environmental Co, Inc
3210 Whitten Rd, Lakeland, FL 33811
CONTACT PERSON: William D Miller III
Ph – 863-644-0665 Fax – 863-646-1880
e-mail: aquaclean@tampabayrr.com

COUNTY: Marion County Solid Waste Department
5601 SE 66th St, Ocala, FL 34480

A copy of all notices to the COUNTY hereunder shall also be sent to:

County Administrator
601 SE 25th Ave, Ocala, FL 34471

Procurement Director
Marion County Procurement Services Department
2511 SE 3rd St, Ocala, FL 34471

Section 7 – Amendments. This Agreement may only be amended by mutual written agreement of both Parties.

Section 8 – Books and Records. The CONTRACTOR shall keep records of all transactions. The COUNTY shall have a right to review such records at the CONTRACTOR'S office during normal business hours.

Section 9 – Indemnification. The CONTRACTOR shall indemnify and hold harmless the COUNTY, its officers, employees and agents from all suits, claims, or actions of every name and description brought against the COUNTY based on personal injury, bodily injury (including death) or property damages received or claimed to be received or sustained by any person or persons arising from or in connection with any negligent act or omission of the CONTRACTOR or its employees, officers, or agents in performing the services set forth herein.

Section 10 – Insurance. During the period the services are rendered, insurance policies shall be with a company or companies authorized to do business in the State of Florida. The County shall be notified if any policy limit has eroded to one half its annual aggregate. The CONTRACTOR shall provide a Certificate of Insurance, issued by a company authorized to do business in the State of Florida and with an A.M. Best Company rating of at least B+. All policies must show the "Marion County Board of County Commissioners" as an Additional Insured except for the workers compensation and professional liability policies. The Procurement Services Director should be shown as the Certificate Holder, and the Certificate should provide for 30 day cancellation notice to that address with policies for the following:

Business Auto Liability shall be provided by the CONTRACTOR with combined single limits of not less than $1,000,000 per occurrence and not less than $3,000,000 per aggregate and is to include bodily injury and property damage liability arising out of operation, maintenance or use of any auto, including owned, hired and non-owned automobiles.

Worker's Compensation shall be purchased and maintained by the CONTRACTOR with statutory limits and employers liability limits of at least $1,000,000 each accident and $1,000,000 each employee and $1,000,000 policy limit for disease.

General Liability with limits of not less than $1,000,000 per occurrence and $2,000,000.00 annual aggregate. The policy must be maintained by the CONTRACTOR for the duration of the project. If the policy is written on a claims-made basis, the CONTRACTOR must maintain the policy for a minimum of 5 years following the completion of the project. The County of Marion must be shown as an additional insured.

Environmental Liability Insurance shall be provided by the Bidder with combined single limits of not less than $1,000,000 per occurrence and not less than $3,000,000 per aggregate and is to include environmental remediation and property damage liability arising out of releases during transportation of leachate over state roads, county roads, or county property.

Section 11 – Independent CONTRACTOR. In the performance of this Agreement, the CONTRACTOR will be acting in the capacity of an "independent CONTRACTOR" and not as an agent, employee, partner, joint venturer, or associate of the COUNTY. The CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures utilized by the CONTRACTOR in the full performance of this Agreement.

Section 12 – Default/Termination. In the event the CONTRACTOR fails to comply with any of the provisions of this Agreement, the COUNTY may terminate this Agreement for cause by first notifying the CONTRACTOR in writing, specifying the nature of the default and providing the CONTRACTOR with a reasonable period of time in which to rectify such default. In the event the default is not cured within the time period given, the COUNTY thereafter may terminate this Agreement upon written notice to the CONTRACTOR without prejudice to the COUNTY in terms of any right or for cause; the COUNTY will be responsible for compensation to the CONTRACTOR only for the termination date. The COUNTY may terminate this Agreement without cause providing at least thirty (30) days written notice to the CONTRACTOR. In the event of termination of this Agreement without cause, the COUNTY will compensate the CONTRACTOR for all services timely and satisfactorily performed pursuant to this Agreement up to the date of termination. Notwithstanding any other provision of this Contract, this Contract may be terminated if for any reason there are not sufficient appropriated and available monies for the purpose of maintaining County or other public entity obligations under this Contract. County shall have no further obligation to CONTRACTOR, other than to pay for services rendered prior to termination.

Section 13 – Timely Performance. All work will commence upon authorization from the County's representative. All work will proceed in a timely manner without delays.

Section 14 – Damage to Property. The CONTRACTOR shall be responsible for all material, equipment and supplies sold and delivered to the Owner under this Contract and until final inspection of the work and acceptance thereof by the Owner. In the event any such material, equipment and supplies are lost, stolen, damaged or destroyed prior to final inspection and acceptance, the CONTRACTOR shall replace the same without additional cost to the Owner.

Section 15 – Termination for Loss of Funding/Cancellation for Unappropriated Funds. The obligation of the County for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of the contract into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

Section 16 – Miscellaneous. The following attachments are hereby incorporated into this Agreement as part hereof as though fully set forth herein:

EXHIBIT A – Scope of Service (4 Pages)
EXHIBIT B – Fee Schedule (1 Page)

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized officers on the day, month and year set forth above.

ATTEST:

DAVID R. ELLSPERMANN,
CLERK OF THE COURT

BOARD OF COUNTY COMMISSIONERS
MARION COUNTY, FLORIDA

BARBARA FITOS
CHAIR

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

MARION COUNTY ATTORNEY

ATTEST

OFFICER OF CORP.

AQUA CLEAN ENVIRONMENTAL CO, INC

PRESIDENT OF CORP.

NOTARY CERTIFICATE - to be completed by Notary for Aqua Clean Environmental Co, Inc

State of: Virginia
~~County~~ City of: Richmond

Before me this day personally appeared Robert C. Courain, Jr. and James C. Foster, Jr. as President and Asst. Secretary respectively of *Aqua Clean Environmental Co, Inc* to me well known to be the persons described in or Produced Identification (name type of ID) Drivers License and who executed the foregoing instrument, and who acknowledged that they did so as officers of said corporation all by and with the authority of the Board of Directors of said corporation.

Witness my hand and seal this 07th day of September, 20 10.

My Commission expires August 31. 2014

Signature of Notary

Notary Stamp:

MARION COUNTY BASELINE LANDFILL
LEACHATE TRANSPORTATION AND DISPOSAL
SCOPE OF SERVICE

2.1. INTRODUCTION

The intent of this RFP is to solicit proposals from qualified firms to provide landfill leachate transportation and disposal services for the Marion County Baseline Landfill. The leachate will be available at the Baseline Landfill at 5601 SE 66th Street, Ocala, Florida.

2.2 BACKGROUND

The County operates the Baseline Landfill in accordance with FDEP Rule 62-701, FAC. A site plan of the facility is shown in Attachment A. Leachate is the wastewater that percolates through the County's Subtitle D (Class I) landfills. Chemical analysis of the leachate is included in Attachment B. The County shall not be responsible for any additional leachate testing beyond that required under FDEP Solid Waste operation permit requirements.

2.3 GENERAL REQUIREMENTS

The successful Proposer shall provide all labor and materials and supervision required to properly and safely transport and dispose of leachate from the Marion County Baseline Landfill.

1. Provide leachate transport and disposal from the County's Baseline Landfill at 5601 SE 66th St., Ocala, Florida.

2. Award will be made to one or more Vendors submitting the lowest overall price with best options and having the capacity to transport, treat, and dispose of such quantities of leachate that the County produces. The County will strive to obtain services from the lowest cost proposal from a qualified Vendor first.

3. The work required under this bid shall be performed by the entity submitting the bid. The entity will not be relieved of any responsibilities of the bid whether the truck(s) is(are) owned or leased by the entity. A lack of performance of the requirements of this bid because of the use of leased equipment as well as equipment owned could result in termination of the bid.

4. The period of performance for this bid is for 5 years from the date of Notice to Proceed. It may be extended for two 1-year periods at the same terms and conditions, with the mutual agreement of all parties.

5. All prices proposed on the Bid Form shall remain unchanged during the period of performance, as specified above.

6. Fuel adjustments may be requested by the vendor on an annual basis and if accepted by the County, applicable adjustments will be made to the Unit Price (Bid Form Items#1 and #2). Fuel adjustment requests must be accompanied by documentation based on an average documented increase in the annual cost of fuel not to exceed a 3% increase to the Unit Price (Bid Form Items #1 and #2). Documented increases must be supported by increases as reported by OPIS: http://opisnet.com/ or the US Department of Energy index: http://tonto.eia.doe.gov/oog/info/gdu/gasdeiesel.asp. Documented increases must also be supported by copies of fuel receipts substantiating the fuel increase. Any request to the County for an increase in the Unit Price for fuel adjustments must be made in writing at least thirty days before the end of each twelve month period or each renewal of the contract.

   Should the cost of fuel drop significantly, the County reserves the right to renegotiate the Unit Price (Bid Form Items #1 and #2) annually.

7. The disposal site must be an FDEP-permitted wastewater treatment plant (WWTP). The Vendor shall provide a chain-of-custody form that provides assurance to the County that the quantity of leachate removed from Baseline

Landfill has been received at the WWTF. The chain-of-custody forms shall be provided to the County with each pay request.

8. The Vendor shall provide a copy of necessary permits including but not limited to FDEP WWTF operation permits and permit modifications issued before accepting the County's leachate and local Industrial Waste Water Discharge Permits. The Vendor will be responsible for complying with all applicable Federal, State, and Local regulations concerning safety, operation, and environmental protection. Vendors discharging treated leachate to pre-treatment facilities or WWTF's must show proof of acceptance from the receiving plant of such treated leachate and the FDEP WWTF operations permits and permit modifications issued before accepting the County's leachate.

9. The County leachate quantity data are provided as Attachment C. The County produces an average of 7,500 to 9,300 gallons of leachate per day. The daily quantity can exceed 35,000 gallons. The County makes no guarantee of minimum or maximum quantities or qualities to be disposed of per day, week, month, or year. Minimum and maximum leachate hauling volumes per week will vary. Weather conditions and landfill operations affect leachate quantities.

10. The County will not require services during certain week(s) because only small quantities of leachate may be generated. However, the Vendor shall be available and on call 365 days per year.

11. Vendors should be able to receive the minimum number of gallons stated in their bid with a minimum of 24-hour notice (truck on location within 24 hours). Generally the County will attempt to provide notice a week in advance when possible. Should a Vendor refuse to accept the minimum number of gallons listed in the Vendor's bid on more than three occasions, the County reserves the right to terminate the Vendor's contract.

12. If the County is unable to secure services from any of the successful Vendors, the County reserves the right to secure services from an outside source. The County reserves the right to contract with outside Vendors in the event of extreme weather conditions that result in excess leachate in order to stay within FDEP guidelines.

13. The leachate volume will be based on the metered gallons as shown at the Baseline landfill loading meter. If the meter is not functioning, the volume will be determined as follows: the tankers will weigh-in (unloaded) at the landfill and weigh-out (loaded) at the landfill and the quantity will be calculated based on the unit weight of water.

14. Vendors may obtain leachate samples by scheduling an appointment with Marion County Solid Waste Department, (352) 671-8465. Leachate samples may be collected at the sampling port located at the leachate tanks and shall be collected according to the FDEP Rules and according to the protocols set forth in the FDEP publication *Department of Environmental Protection Standard Operating Procedures for Field Activities*, including completion of field sampling logs and Chain of Custodies.

    Laboratory analytical work shall be performed by a NELAC-approved laboratory according to the Rules of the Florida Department of Environmental Protection using FDEP-approved and FDoH (NELAP)-accredited methodologies. Copies of the field sampling logs, chain of custody forms, and chemical analysis reports shall be provided to Marion County upon request.

15. The County must be notified if the treatment facility used for leachate disposal is in non-compliance, has been shut down due to FDEP enforcement action, receives any fines levied by the FDEP, or receives any warning notices or notices of violation from FDEP.

16. The leachate disposal Unit Price (per gallon) bid should include all fees, including transportation and disposal fees. The County shall not be held liable for any additional costs, fees, or surcharges beyond the quoted Unit Price cost.

17. Quantities shown in this Scope of Service are approximate only and are subject to increase or decrease. Should the quantities be increased, the Vendor proposes to do the additional work at the unit bid prices, and should the quantities decrease for any reason, including the County's funding capability, which may result in the County performing the services themselves, the Vendor understands that payment will be made on actual quantities provided at the Unit Price bid and will make no claim for anticipated profits, overhead, or fixed costs for any decrease in quantities. The County reserves the right to perform the services for hauling leachate at any time and/or in any amount during the length of the contract.

18. The Vendor agrees to apply bid prices to the normal work schedule of each landfill, which is 7:00 a.m. to 5:00 p.m. Monday through Friday. However, the Vendor also agrees to extend the bid prices to cover any naturally occurring weather conditions that may extend the normal work schedule beyond these parameters to include Saturday and Sunday as well as any time scheduled after 5:00 p.m. on any day of the week for an additional fee as indicated on the Bid Form.

19. The County shall provide leachate-loading facilities as shown in Attachment A. The normal leachate-loading operation includes discharging through the County's leachate loading boom into the top of the Vendor's tanker. However, a temporary alternate loading operation may be used to load the Vendor's tanker during periods when the leachate loading boom may be inoperable. The Vendor's tanker shall accommodate filling through both a top hatch compatible with the County's leachate loading boom and through a bottom fitting for alternative loading conditions.

20. The Vendor shall provide a Management and Response Plan for the County to review. The County will evaluate the Vendor's Management and Response Plan based on (1) readiness to respond to County requests for leachate hauling, (2) safety procedures for loading and unloading, (3) operator safety records, (4) responsiveness to citizen complaints, (5) documenting and reporting traffic accidents and citations, (6) preventing spills and spill clean-up, (7) documenting loads and invoicing, and (8) documenting that local discharge standards are met.

21. The Vendor shall provide an implementation schedule. The County expects to complete the RFP process and contract execution by November 2010 and to begin leachate disposal January 2011.

22. Due to the presence of methane gas and potentially harmful leachate, the Vendor shall have a Health and Safety Plan and all operators shall be familiar with the Health and Safety Plan and shall follow its requirements. The Health and Safety Plan shall include provisions for remediation and clean-up of leachate spills. The Health and Safety Plan shall clearly state that there is no smoking allowed on the Marion County Baseline Landfill property.

23. The Vendor must be an FDEP-permitted wastewater pre-treatment facility (IP) and/or a wastewater treatment facility (WWTF). The Vendor shall provide a chain-of-custody form that provides assurance to the County that the quantity of leachate removed from Baseline Landfill has been ultimately received at a permitted WWTF. The chain-of-custody forms shall be provided to the County with each pay request.

24. The Vendor shall provide a copy of necessary permits including but not limited to FDEP IP and WWTF operation permits and permit modifications issued and local Industrial Waste Water Discharge Permits before accepting the County's leachate. The Vendor will be responsible for complying with all applicable Federal, State, and Local regulations concerning safety, operation, and environmental protection. Vendors discharging treated leachate to pre-treatment facilities or WWTF's must show proof of acceptance from the receiving plant of such treated leachate and the FDEP IP and/or WWTF operations permits and permit modifications issued before accepting the County's leachate.

25. Additional Clarifications necessary to the Scope, based on Addendum #1 issued July 15, 2010:

    1. Q: We need an analysis including Total Dissolved Solids (TDS) and Chloride levels in order to assess treatability of leachate.
       A: Attachment 1 includes additional leachate analyses including TDS, Chlorides, metals, Volatile organic compounds (VOCs), and hydrocarbons.

2. Q: Few people can meet the bid's stated insurance requirements. The Treatment facility we propose using meets the $5 million liability insurance. Is this acceptable?
   A: The following are additions to the previously requested insurance requirements:
   Business Auto Liability shall be provided by the Bidder with combined single limits of not less than $1,000,000 per occurrence and not less than **$3,000,000 per aggregate** and is to include bodily injury and property damage liability arising out of operation, maintenance, or use of any auto, including owned, non-owned, and hired automobiles and employee non-ownership use.
   Environmental Liability Insurance shall be provided by the Bidder with combined single limits of not less than $1,000,000 per occurrence and not less than **$3,000,000 per aggregate** and is to include environmental remediation and property damage liability arising out of releases during transportation of leachate over state roads, county roads, or county property.
3. Q: What will be the pumping rate?
   A: The pumping rate for the top load filling leachate loading station is expected to be constructed in 2011 will be specified to have a pumping rate of 400 to 500 gallons per minute.
4. Q: What meter will be used to measure leachate flows and quantify gallons of leachate transported and disposed.
   A: Marion County has a magnetic flow meter that will be used. The County reserves the right to randomly direct Vendor trucks across the landfill scales for comparison to the meter and weight checking at no additional cost. The Vendor may also use the scales, however the magnetic meter will be the official measurement unless otherwise approved by both parties in writing.
5. Q: Is it a Marion County requirement that all treatment facilities have a Centralized Waste Treatment permit (CWT) as mandated by the Environmental Protection Agency (EPA) under 40 CFR.437 for the treatment of petroleum products, metals and organics which are constituents in your leachate wastewater?
   A: The centralized waste treatment industry (CWT) is an EPA category for which effluent limitation guidelines are provided. Florida Department of Environmental Protection (FDEP) Rule Chapter 62-660.400, FAC - Industrial Wastewater Facilities Effluent Limitations -- promulgates the EPA guidelines, as shown below:

62-660.400 Effluent Limitations.

The following effluent limitations apply to plants and installations which discharge industrial wastes into waters of the state.

(1) Effluent Limitations Based on the Availability of Technology.

(e) The Department has reviewed and evaluated the EPA effluent guidelines and standards which have been published as final regulations in the United States Code of Federal Regulations, and are in full force and effect on the date of adoption of this section. With respect to each particular class or category of sources as hereinafter listed, the following EPA Effluent Guidelines and Standards, as they are contained in the United States Code of Federal Regulations and are in effect on the date indicated, are incorporated herein, and adopted by the Department, except where expressly supplemented or modified by the Environmental Regulation Commission, and are incorporated by reference as though fully set forth herein:

Therefore, the current CWT effluent limitations are incorporated into FDEP wastewater permits. See the permit requirements stated in Sections 2.3.26 and 2.3.27.

6. Vendor will take full responsibility and ownership for leachate once it enters the Vendor's vehicle. Vendor will be responsible health and safety precautions during leachate filling. Full responsibility includes but is not limited to proper disposal, immediate clean-up and reporting of spills, meeting contract requirements, and meeting State and Local permits and regulations.
7. Vendor will take full responsibility for the weight of the transport vehicle and will meet Florida Department of Transportation (FDOT) requirements. Vendor will be responsible for any fines or charges by FDOT.

Request for Proposal for:
Marion County Baseline Landfill
Leachate Transportation and Disposal
RFP 10P-201

VENDOR INFORMATION SHEET
NAME OF FIRM SUBMITTING PROPOSAL Aqua Clean Environmental Co, INC..

Federal Employer Identification Number: 54-1803483	
Name and Title of Contact Person:	
Name: W.D. Miller III	Title: Vice President
Mailing Address: 3210 Whitten Rd	
Street Address: Same	
City, State, Zip: Lakeland, FL 33811	
Telephone: 8636440665	Fax: 8636461880
Email: aquaclean@tampabay.rr.com	

PROPOSER ACKNOWLEDGMENT

"The undersigned, as Vendor, hereby declares that he has informed himself fully in regard to all conditions to the work to be done, and that he has examined the Request for Proposal and all Addenda for the work and comments hereto attached. The Vendor proposes and agrees, if this proposal is accepted, to contract with Marion County Board of County Commissioners to furnish all necessary materials and labor necessary to complete the work covered by the Proposal for this Project specific to the terms of the contract."

COMPENSATION SCHEDULE

Item #1:	Dispatch to Baseline Landfill, load tanker truck at landfill, transport, unload, and dispose of leachate per bid documents (During regular business hours)	.10 $/gal
Item #2:	Dispatch to Baseline Landfill, load tanker truck at landfill, transport, unload, and dispose of leachate per bid documents (Outside regular business hours)	.10 $/gal
Item #3:	Minimum number of gallons of leachate per day Vendor guarantees to accept from County	5,000 gal/day
Item #4:	Maximum number of gallons of leachate per day Vendor guarantees to accept from County	120,000 gal/day
Item #5:	Fuel Cost % of Bid Unit Price	Item #1 30 % Item #2 30 %

Signature of Authorized Person _____ **Date:** 7/21/10

This document must be completed and returned with your Submittal

ATTACHMENT C

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT FORM

Facility Name: **Baseline Landfill**		Date:
DEP Permit No.:	WACS Facility ID #: **20906**	
WACS Monitoring Site ID #:	WACS Monitoring Site Name:	
Well Type: ❑ Background ❑ Detection ❑ Compliance ❑ Other_____		
LATITUDE AND LONGITUDE (See Next Page For Requirements):		
Coordinate Accuracy:	Datum:	Elevation Datum:
Collection Method:	Collection Date:	
Collector Name:	Collector Affiliation:	
Aquifer Monitored:		
Drilling Method:	Date Installed:	
Installed By:		
Bore Hole Diameter:	Total Depth:(BLS)	
Casing Type:	Casing Diameter:	Casing Length:
Screen Type:	Screen Slot Size:	Screen Length:
Screen Diameter:	Screen Interval: _____ To_____(BLS)	
Filter Pack Type:	Filter Pack Grain Size:	
Filter Interval Covered:	Filter Interval: _____ To_____(BLS)	
Sealant Type:	Sealant Interval: _____ To_____(BLS)	
Grout Type:	Grout Interval: _____ To_____(BLS)	
Top Of Casing Elev. (NGVD):	Ground Surface Elev. (NGVD):	
Post Development Water Level Elev. (NGVD):	Date And Time Measured:	
Describe Well Development:		
Remarks:		
Name Of Person Preparing Report:		
Organization:	Phone Number:	

NOTE Attach As-Built Mw Construction Diagram, Lithologic Log, And Survey Drawing (See Next Page).

(NGVD)=National Geodetic Vertical Datum Of 1929 (BLS) = Below Land Surface

Additional Survey Notes:

1. Latitude and Longitude Requirements and Definitions:

   a. **Latitude** must be measured in degrees, minutes and seconds, to at least two (2) decimal places.

   b. **Longitude** must be measured in degrees, minutes and seconds, to at least two (2) decimal places.

   c. **Eastings and northings** (State Plane Coordinates) **must** be converted to latitude and longitude.

   d. **Coordinate Accuracy:** the measured, estimated degree of correctness of the measurement. An accuracy of 15 feet or 5 meters is required.

   e. **Datum:** the horizontal reference for measuring locations on the Earth's surface. NAD83-North American Datum of 1983 is preferred.

   f. **Elevation Datum:** the reference datum from which elevation measurements are made. NGVD29 (National Geodetic Vertical Datum of 1929 is required.

   g. **Collection Method:** the method or mechanism used to derive the measurements, e.g. GPS, map, aerial photo, etc.

   h. **Collection Date:** the date and time on which the measurements were taken.

   i. **Collector Name:** the name of the person taking the measurement.

   j. **Collector Affiliation:** the agency or company for whom the collector works.

2. As specified in the MPIS, One (1) paper copy and one (1) electronic copy of a drawing must be submitted within thirty (30) days following monitoring well installation showing the location of all monitoring wells (active and abandoned), water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to NGVD with an accuracy of 0.01 feet. The latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and provided on the drawing. The survey shall be conducted and certified by a Florida Licensed Surveyor and Mapper. [***62-701.510(1)(c)&(3)(d)1, F.A.C.***]

3. If a monitoring well is being replaced or new wells are being added to an existing ground water monitoring plan, only the new wells needs to be surveyed as long as all other monitoring wells in the MPIS have been surveyed and certified by a Florida Licensed Surveyor and Mapper and there is no reason to believe that the elevations have changed. This location and elevation determinations and the certification must be provided with the Monitoring Well Completion Form for the new well,.

Attachment D
REQUIREMENT FOR SUBMITTING ELECTRONIC WATER QUALITY DATA
TO THE FDEP CENTRAL DISTRICT
WASTE AND AIR RESOURCE PROGRAMS

I. General Information

Electronic versions of monitoring reports and all ground water, surface water and leachate analytical results for the Solid Waste Program shall be submitted to the Department on compact disc, DVD, or flash drive media readable by Microsoft Windows. Water quality monitoring reports shall be submitted in Adobe pdf format.

Unless otherwise approved by the Department, the water quality Electronic Data Deliverable (EDD) shall be compatible with software called Florida DEP Automated Data Processing Tool (ADaPT). ADaPT has been developed to evaluate and upload water quality data into the Department's Water Assurance Compliance System (WACS) database. A copy of this ADaPT software with installation instructions and EDD specifications can be downloaded from the following website address:

http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm

(Rules 62-160.240 and 62-160.340, F.A.C.)

II. Monitoring Report

Two electronic copies of the water quality monitoring report shall be submitted. The electronic version of the monitoring report shall be submitted in Adobe pdf format, with the EDDs as separate files on the electronic media.

The Monitoring Report shall include the following items:

1. Cover letter;
2. Summary of exceedances and sampling issues (if any, for example, variation from SOP field criteria);
3. Conclusions and recommendations;
4. Ground water contour maps;
5. Chain of custody forms;
6. Water levels, water elevation table;
7. Ground Water Monitoring Report Certification, using the appropriate Department form **(Attachment E);**
8. Required sampling information on Form FD 9000-24 (DEP-SOP-001/01) **(Attachment F);**
9. Laboratory and Field EDDs that are compatible with ADaPT software and the ADaPT error log(s).

(NOTE: You no longer have to complete or submit the DEP Form 62-522.900(2), Parameter Monitoring Report.)

One copy of the Monitoring Report shall be sent to each:

Florida Department of Environmental Protection
Central District Waste and Air Resource Programs
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803
DEP_CD@dep.state.fl.us

And to:
Florida Department of Environmental Protection
Solid Waste Section
2600 Blair Stone Road, MS 4565
Tallahassee, Florida 32399-2400

The Monitoring Report (including ADaPT EDDs) may also be emailed to Tallahassee using the following email address, ADaPT.EDDs.and.Reports@dep.state.fl.us. Refer to section III below for file nomenclature details. Please submit all ADaPT files in a single zip file named as follows:

12345_200811_swldd.zip

Monitoring Report in a single (text, no scanned content) PDF file named as follows:

12345_200811_swgwmr.pdf

Do not submit multiple documents for the Groundwater Monitoring Report, combine all documents in a single PDF document. Less preferable, zip these documents into a single zip file named as follows: 12345_200811_swgwmr.zip.

If attachments are too large to email, monitoring reports may also be transmitted to the FDEP Solid Waste program in Tallahassee using the following FTP site: ftp://ftp.dep.state.fl.us/pub/WACS-ADaPT/EDDS_and_Reports

Note: When submitting files to the FTP site please combine all ADaPT EDDs and the groundwater monitoring report into a single zip file (sw_12345_200811_gwmr.zip). Please email us at ADaPT.EDDs.and.Reports@dep.state.fl.us informing us of what files were transmitted via FTP for which facility sampling event.

III. ADaPT EDDs

The ADaPT EDD consists of two electronic deliverables: (1) a Laboratory EDD, identified as swldd.txt; and (2) a Field EDD identified as swfdd.txt. The Laboratory EDD shall be submitted in a comma separated (.csv format) text file which can be produced through Excel. The Laboratory EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date (yyyymm) underscore swldd.txt. The period at the end would not be included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the Laboratory EDD file name should be: 12345_200811_swldd.txt

The Field EDD shall be submitted in the same comma separated (.csv format) text file as the Laboratory EDD. The Field EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date

(yyyymm) underscore swfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the file name should be: 12345_200811_swfdd.txt

For confirmation sampling, add the term _conf to the EDD filenames as follows: 12345_200811_conf_swldd.txt for the Laboratory EDD or 12345_200811_conf_swfdd.txt for the Field EDD.

For radiochemistry results add the term "_rad" similar to confirmation sampling indicated above.

For data that is resubmitted, add _#, where # is the number of data submittals (greater than 1). For example, if the data was resubmitted for the first time, and was thus submittal number 2, then the EDD filenames would be as follows: 12345_200811_2_swldd.txt for the Laboratory EDD and 12345_200811_2_swfdd.txt for the Field EDD.

Finally, taking this to an extreme, if confirmation data was resubmitted for say the 10th time, then the EDD filenames would be: 12345_200811_conf_10_swldd.txt for the Laboratory EDD or 12345_200811_conf_10_swfdd.txt for the Field EDD.

IV. Signatures Required

Water quality monitoring reports and interpretative documents (such as recommendations about exceedances and/or contour maps) shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. A sealed signature page may be submitted with the electronic copy of the report provided that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the sealed and signed page.

V. Process Required

Three steps are generally required. First, two copies of the Laboratory EDD, one in comma separated text format and one as a PDF file, must be submitted by the laboratory. A digitally "signed" PDF copy (read-only file) by the laboratory serves to maintain the integrity of the Laboratory EDD. In order to validate the QA/QC aspects of the Laboratory EDD, the permittee shall ensure the laboratory processes the Laboratory EDD through ADaPT using both their laboratory specific library and the Department's Solid Waste Master library and corrects all critical errors and explains all non-critical errors prior to submittal. Second, the appropriate entity (laboratory, consultant, or permittee) shall process the Field EDD through ADaPT using the Department's Solid Waste Master library and correct all critical errors and explain all non-critical errors prior to submittal. Finally, as a completeness check, the permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk and submit the ADaPT generated export file (ADaPTYYYYMMDDHHMMSS.txt).

VI. Resources

In the event help is needed to prepare these EDDs, you can contact the Central District Solid Waste staff:

Florida Department of Environmental Protection
Central District Office

Waste and Air Resource Programs
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767

Laxsamee Levin 407-897-4313

DEP_CD@dep.state.fl.us

You can also receive assistance by contacting Mr. Clark Moore (850-245-8739 or by e-mail at clark.b.moore@dep.state.fl.us) or Mr. Lee Martin (850-245-8734 or by e-mail at lee.martin@dep.state.fl.us) in FDEP Tallahassee.

ATTACHMENT E

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

GROUND WATER MONITORING REPORT

Rule 62-522.600(11)

PART I GENERAL INFORMATION

(1) Facility Name **Baseline Landfill**

Address _____

City _____ Zip _____ County _____

Telephone Number ( ) _____ E-mail address _____

(2) WACS_Facility **20906**

(3) DEP Permit Number _____

(4) Authorized Representative's Name _____ Title _____

Address _____

City _____ Zip _____ County _____

Telephone Number ( ) _____ E-mail address _____

(5) Type of Discharge N/A

(6) Method of Discharge N/A

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

_____ _____

Date Owner or Authorized Representative's Signature

PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization _____

Analytical Lab NELAC #/ HRS Certification _____

Lab Name _____

Address _____

Phone Number ( ) _____

E-mail Address _____

From DER Form 62-701.900(31), F.A.C.
Effective January 6, 2010

Attachment F
WATER SAMPLING LOG
DEP-SOP-001/01 FS 2200 Groundwater Sampling
Form FD 9000-24

FACILITY NAME: **Baseline Landfill** WACS # **20906**	FACILITY LOCATION:

MONITORING_SITE_NUM:	WACS_WELL:	DATE:

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE:	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: _____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

ATTACHMENT 1
Time Sensitive Action Chart

Specific Condition (Section 2)	Submittal Due Date	Required Item
A.3	No later than January 01, 2024	Submit permit renewal application
A.5.a,b,c,d	No later than March 04, 2019	Report containing an updated closure plan, revised closure cost estimate, demonstration the LCS has been water pressure cleaned or inspected by video recording, and an updated operation plan, if procedures have changed
C.11.c	No later than March 04, 2019 With the permit renewal application	Submit report of jet cleaning and video inspection of LCS piping A summary of the results from all cleaning and inspections during the life of the permit
C.13.a.	Annually, by January 20th	Submit waste quantity records
C.13.b	Annually, by April 1 each year	Annual estimate of remaining life and capacity calculations
D.2. APPENDIX 3 paragraph 4	Within 14 days of discovery Within 30 days of receiving sampling results Within 60 days from completion of laboratory analysis	Notification of monitoring parameters significantly above background water quality or exceeding ground water standards or minimum criteria, if Permittee chooses not to conduct a resampling event Conduct a resampling event if monitoring parameters are detected significantly above background water quality or exceeding ground water standards or minimum criteria Submit Confirmed data to the Department
D.2. APPENDIX 3 paragraph 7	Semi-annually in February and August	Sample the 17 ground water monitoring wells
D.2. APPENDIX 3 paragraph 10	Within seven (7) days of damage or if monitoring well or piezometer is inoperable.	Provide a written report to the Department describing what problem has occurred and the remedial measures that have been taken to prevent a recurrence.

D.2. APPENDIX 3 paragraph 11	Prior to placement of new or replacement monitoring well	Obtain approval from the Department
D.2. APPENDIX 3 paragraph 14	Prior to abandonment of any well that is unsuitable for ground water monitoring or for any piezometer	An abandonment plan must be submitted and approved by the Department
D.2. APPENDIX 3 paragraph 15	At least fourteen (14) days prior to the installation and/or sampling of any monitoring well(s)	Notify the Department in writing, hard copy or email.
D.2. APPENDIX 3 paragraph 16	Within thirty (30) days after installation of any new or replacement monitoring well(s)	Submit a Monitoring well Completion Report
D.2. APPENDIX 3 paragraph 17	Within thirty (30) days following monitoring well installation	Provide survey drawing showing the location of all monitoring sites.
D.2. APPENDIX 3 paragraph 19	At time of permit renewal	Provide a total depth measurement on each well.
D.2. APPENDIX 3 paragraph 20	Within sixty (60) days from completion of laboratory results	Submit required monitoring reports to the Department

D.2. APPENDIX 3 paragraph 21	Semi-annually in February and August	Measure surface water elevations at sampling locations
D.2. APPENDIX 3 paragraph 22	Semi-annually in February and August	Measure surface water elevations at sampling locations.
D.2. APPENDIX 3 paragraph 22	Within a one-day period	Obtain water level measurements
D.2. APPENDIX 3 paragraph 24	Semi-annually in February and August	Submit ground water elevation contour maps for each monitored aquifer zone to the Department
D.2. APPENDIX 3 paragraph 26	June 2016 December 2018 June 2021, At time of Operations Permit # 0103935-SO/01 renewal (due January 01, 2024)	Submit water quality monitoring plan evaluation technical reports
E.5	Quarterly, by January 20th, April 20th, July 20th, and October 20th of each year	Submit results of routine landfill gas monitoring events
F.1 F.2.a. and b	Annually Annually, by September 1st each year	Submit proof financial mechanisms are established and funded Submit closure cost estimates including annual adjustments for inflation.
G.1	Prior to initiating closure	The permittee shall receive authorization from the department.

ATTACHMENT 2

Facility Permit History

(Active Class I from Last Operations Permit Renewal)

Permit #	Name	Received Date	Issued Date	Description
0103935-011-SO/01	Marion County Baseline Landfill	11/17/2008	07/15/2009	Phase III Operation permit 5-year duration replaced permit #0103935-007-SO/01.
0103935-012-SO/MM	Marion County Baseline Landfill	09/28/2009	11/30/2009	Minor modification of permit 0103935-011-SO/01 for gas collection system improvements.
0103935-013-SO/MM	Marion County Baseline Landfill	02/09/2012	03/29/2012	Minor modification of permit 0103935-011-SO/01 for gas management system expansion.
0103935-015-SO/01	Marion County Baseline Landfill	09/30/2013	03/05/2014	Phase III Operation permit 10-year duration replaced permit #0103935-011-SO/01.

MARION COUNTY
SOLID WASTE

APPENDIX "F"
PERMITS

BASELINE LANDFILL
URBAN (NORTH) CELL CLOSURE
PERMIT #SF0103935-08

Issued: 06-23-2006
Renewal Date: 03-25-2016
Expires: 05-25-2016

2015 STRATEGIC PLAN

FLORIDA

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Colleen Castille
Secretary

KW
xc: Tom White ✓
Mike Sims ✓
Duwayne Robertson
Don Moyer ✓
Rebecca Kelner
John Locklear
Steve Laux

By E-Mail
Leonard.whitehead@marioncountyfl.org

Mr. Ken Whitehead, P.E.
Marion County Board of County Commissioners
5601 Southeast 66th Street
Ocala, FL 34460

OCD-SW-06-0228

2006 JUN 23 AM 11 00
MARION COUNTY
SOLID WASTE

Marion County – SW
Baseline Landfill, Urban (North) Cell, Class I – Closure
DEP File No. SF42-0103935-008

Dear Mr. Whitehead:

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number SF42-0103935-008 to continue Post-Closure activities at the Baseline Landfill, Urban (North) Cell, Class I, issued pursuant to Section 403.707(1) of the Florida Statutes, (F.S).

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 of the Florida Statutes 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 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received by the clerk) 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 fourteen days (14) of receipt of this written notice. Petitions filed by any persons must be filed within fourteen (14) days of publication of the notice or receipt of the written notice, whichever occurs first. Under Section 120.60(3), Florida Statutes, however, any person who has asked the Department for notice of agency action may file a petition within fourteen (14) 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, Florida Administrative Code (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, address, and telephone number of each petitioner; the applicant's name and address, the Department's File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action;
(c) A statement of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;
(d) A statement of all material fact's disputed by petitioner or a statement that there are no disputed facts;
(e) A statement of the ultimate facts alleged, including a statement of the specific facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of the of the specific rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or 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.

Mediation is not available for this proceeding.

Any party to the order has the right to seek judicial review of the order under Section 120.68 of the Florida Statutes, by the filing of a notice of appeal under Rule 9.110 of the 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 30 days after this order is filed, with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein
Director, Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803
407/894-7555

Date: June 23, 2006

FILING AND ACKNOWLEDGMENT

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

Clerk

June 23, 2006
Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on June 23, 2006 to the listed persons.

Clerk

VFG/gc/ew

Enclosure

Copies furnished to:
Richard Tedder, P.E. – DEP – Tallahassee
Fred Wick – DEP - Tallahassee
Mark G. Roberts, P.E. – Jones, Edmunds & Associates, Inc. mroberts@jonesedmunds.com

Department of Environmental Protection

Jeb Bush
Governor

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Colleen Castille
Secretary

Permittee:
Marion County Board of County Commissioners
5601 Southeast 66th Street
Ocala, FL 34460

Attention: Mr. Ken Whitehead, P.E.

WACS Facility: 20906
Permit/Certification Number:
SF42-0103935-008
Expiration Date: 05/25/2016
County: Marion
Section 1, Township 16 South, Range 22 East
Latitude: 29° 07' 33", Longitude: 82° 03' 36"
Project: Baseline Landfill, Urban (North) Cell, Class I, Closure

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4 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 on file with the Department and made a part hereof and specifically described as follows:

- To continue the post-closure activities at the Baseline Landfill Urban (North) Cell, which is located in the northern half of the Baseline Landfill. The major portion of solid waste disposed in the landfill was from residential and commercial sources. Some industrial and agricultural wastes were also received at the landfill. In the past, Class III material was not separated from the waste stream and, as a result, has been deposited in the landfill.

- The Baseline Landfill is approximately 112 acres in area. The north cell occupies approximately 38 acres within the Baseline Landfill. The North Cell of the Baseline Landfill was constructed without a bottom liner or a leachate collection system.

- The official date of closing for this landfill is December 14, 1993, based upon the Department's acknowledgement of the receipt of documentation of the Declaration to the Public.

- The project incorporates an approved Gas Management System and a Ground Water Monitoring Plan.

LOCATION: The Baseline Landfill is located on the west side of County Road 35 (Baseline Road) approximately one mile south of County Road 464, north of the town of Belleview. The site is bounded on the northeast by the Seaboard Coastline Railroad, which crosses Baseline Road at the southeast corner of the landfill in Marion County, Florida.

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, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.) 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 personal 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, as required by Department rules. This provision includes the operation of backup and 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 this 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.

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 Section 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 (F.A.C.), 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. 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.

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

(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.

14. 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.

PERMITTEE:
Marion County Board of County Commissioners

Attention: Mr. Ken Whitehead, P.E.

WACS Facility: 20906
Permit/Certification Number:
SF42-0103935-008
Expiration Date: 05/25/2016

SPECIFIC CONDITIONS:

Note that time-sensitive specific conditions are summarized in Appendix B of this permit.

1. Plans and Specifications: Drawings, plans, documents and specifications submitted by the permittee, not attached hereto, but on file at the Central District office, are made a part of this permit. The documents are listed in Appendix A.

2. Inspection Requirements: A copy of the permit, with a complete copy of the permit application and engineering drawings shall be kept on file at the landfill for inspection and review upon request.

3. Other Permits: This permit does not relieve the permittee from complying with any other appropriate stormwater, ERP or other permit requirements.

4. Signs: Signs shall be placed at the entrance to the site stating that the Urban (North) Cell is closed, and stating the penalty for dumping at the site, Rule 62-701.500(5) and (11)(g), F.A.C.

5. Site Access: Access to the site shall be restricted by an effective barrier designed to prevent unauthorized entry and dumping, Rule 62-701.500(5), F.A.C.

6. Effluent Discharge: There shall be no discharge of liquid effluents or contaminated runoff to surface or ground water without prior approval from the Department.

7. Surface Water Management: All surface water runoff from the site shall be collected and treated to meet the requirements of Chapters 373 and 403, Florida Statutes (F.S.) prior to discharge off-site. The surface water management system shall prevent surface water flow into waste filled areas.

8. Stormwater-Leachate Contamination: Stormwater that comes into contact with leachate shall be treated as leachate, and any leachate emanating from the landfill shall be collected and treated as necessary to meet the requirements of Chapters 62-302, 62-4 and 62-520, F.A.C.

9. Zone of Discharge: The zone of discharge for the facility shall be a three dimensional volume, defined in the vertical plane as extending from the top of the ground to the bottom of the screen of the Floridan monitoring wells, and defined in the horizontal plane as extending to the 1983 property line. Class G-II ground water quality standards must be met at the boundary of the zone of discharge in accordance with Rule 62-522.410, F.A.C.

10. Monitoring Plan Implementation Schedule: An updated Monitoring Plan Implementation Schedule (MPIS), attached as Exhibit I, is made a part of this permit. Note that the requirements of the MPIS apply to both the active and closed portions of the Baseline Landfill.

11. Post-Closure Maintenance: Post-closure maintenance of the cover system shall include inspecting the landfill areas that have settled five feet or more in a horizontal distance of 100 feet. The permittee shall make any necessary repairs in areas where settlement has caused or may potentially cause a loss of integrity in the cover system.

12. Differential Settlement: Any differential settlement at the landfill shall be corrected to allow drainage paths to remain intact.

SPECIFIC CONDITIONS:

13. Long-Term Care: The following long-term care provisions as noted in Rule 62-701.620, F.A.C. shall apply:

1) Long-Term Care Period: The owner shall be responsible for monitoring and maintenance of the facility in accordance with the approved closure plan for 20 years from the date of closing, which is December 14, 1993. Prior to the expiration of the post-closing monitoring and maintenance period, the Department may extend the time period if it finds extension is necessary, or if the closure design or closure operation plan is found to be ineffective.

2) Reduced Long-Term Care Period: The owner or operator of a landfill may apply to the appropriate District Office of the Department for a permit modification to reduce the long-term care schedule or eliminate some aspects of long-term care, in accordance with the most current version of Rule 62-701.620(3), F.A.C.

3) Gas Monitoring: The permittee shall comply with the gas monitoring requirements of Rule 62-701.530 (2), F.A.C. Monitoring for methane gas at the property boundary and within structures on the property shall be performed quarterly at 31 gas monitoring wells around the perimeter of the landfill as shown on Figure O-2 in Attachment O-1, Part O (Reference No. 1 – Appendix A) and in the interior of on-site structures to determine the effectiveness of the gas migration controls. The gas monitoring results shall be reported as percent of the lower explosive limit (LEL), calibrated to methane, and shall be submitted to the Department within 30 days of receipt of data. If the gas monitoring results show that combustible gas concentrations exceed 25% of the LEL noted above, the permittee shall implement a Gas Remediation Plan as required in Rule 62-701.530(3)(a), F.A.C.

4) Right of Access: It is the responsibility of the owner or operator to possess or acquire a sufficient interest in, or a right to use the property for which a permit is issued, including the access route onto the property to carry out the requirements of this rule. The issuance of a permit by the Department does not convey any property rights or interest in real or personal property, invasion of personal rights, or impairment of previous contract rights; nor any infringement of federal, state, or local laws or regulations outside the authority under which a permit is issued. The permittee must retain the right of entry to the landfill property for the long-term care period, after termination of solid waste operations, for inspection, monitoring and maintenance of the site.

5) Successors in Interest: Any person acquiring rights or ownership, possession or operation of a permitted landfill through lease or transfer of property shall be subject to all requirements of the permit for the facility and shall provide any required proof of financial responsibility to the Department. Any lease or transfer of property shall include specific conditions to address the following:

a) The previous owner or operator is responsible for closure and shall maintain any required proof of financial responsibility until the person acquiring ownership, possession, or operation of the landfill established the required proof of financial responsibility with the Department;

b) Responsibility for the continuance of monitoring, maintenance, and correction of deficiencies or problems;

c) Mineral rights attached to the property, and the rights to any recoverable materials that may be buried on the property or landfill gases that may be produced. A Department permit shall be required if any on-site operations subsequent to closing of a landfill involve disturbing the landfill.

PERMITTEE:
Marion County Board of County Commissioners

Attention: Mr. Ken Whitehead, P.E.

WACS Facility: 20906
Permit/Certification Number:
SF42-0103935-008
Expiration Date: 05/25/2016

SPECIFIC CONDITIONS:

6) Transfer of Permit: Transfer of landfill permit shall be in accordance with the provisions of Chapters 62-4.120, F.A.C. and 62-701, F.A.C.

7) Replacement of Monitoring Devices: If a monitoring well or other device required by the Monitoring Plan Implementation Schedule is destroyed or fails to operate for any reason, the landfill owner or operator shall, immediately upon discovery, notify the Department in writing. All inoperative monitoring devices shall be replaced with functioning devices within 60 days of the discovery of the malfunctioning unit unless the landfill owner or operator is notified otherwise in writing by the Department.

8) Supervision of the Closed Landfill: Supervision of the closed landfill shall be the responsibility of a qualified person, experienced in the closure requirements of a solid waste management facility.

14. Use of Closed Landfill Areas: Closed landfill areas, if disturbed, are a potential hazard to public health, ground water and the environment. The Department retains regulatory control over any activities that may affect the integrity of the environmental protection measures such as the landfill cover, drainage, liners, monitoring system, or leachate and stormwater controls. Consultation with the Department is required prior to conducting any activities that affect the closed landfill.

15. Construction on Closed Landfill: Pursuant to Section 403.705(1), Florida Statutes, (F.S.), the following guidance is provided for use of a closed landfill.

1) Enclosed ground level and underground structures should be avoided due to the potential for explosive concentrations of methane gas. Special construction and ventilation techniques must be employed if such structures are proposed.

2) Ponding of water, excessive irrigation, or any disturbance of cover soils should be avoided unless there is assurance that moisture will not percolate into the buried waste.

3) Concentrated weight loadings should be avoided to prevent uneven settlement.

4) The effectiveness and integrity of landfill cover and any liners or barriers must not be disturbed when structures are built, particularly when pilings are used.

5) Underground utilities and similar installations that are placed within 200 feet of, or cross any filled areas, should be avoided. If they cannot, a properly located gas barrier or ventilation system should be placed at each property boundary to prevent methane gas migration along the utility line to off-site structures.

16. Financial Assurance Requirements: The permittee shall maintain compliance with the financial assurance requirements of Rule 62-701.630, F.A.C. by submitting all required updated supporting documentation in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264, Subpart H as adopted by reference in Rule 62-701.630, F.A.C. All submittals in response to this specific condition shall be submitted to the Financial Coordinator, Solid Waste Section, Department of Environmental Protection, MS-4565, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

PERMITTEE:
Marion County Board of County Commissioners

Attention: Mr. Ken Whitehead, P.E.

WACS Facility: 20906
Permit/Certification Number:
SF42-0103935-008
Expiration Date: 05/25/2016

SPECIFIC CONDITIONS:

17. Annual Cost Estimates and Financial Instrument Adjustments: The permittee shall, in addition to annually adjusting the closure and long-term care cost estimates, adjust the financial assurance mechanism to reflect an increase in cost estimates. Cost estimate adjustments shall be in accordance with Rule 62-701.630(4), F.A.C. Instrument adjustments shall be in accordance with Rule 62-701.630, F.A.C. and 40 CFR Part 264, Subpart H as adopted by reference in Rule 62-701.630, F.A.C. Documentation of financial mechanism increases shall be submitted to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, MS-4565, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. All estimate update submittals shall be sent to: Department of Environmental Protection, Central District, Solid Waste Section, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

18. Permit Renewal: The closure permit renewal shall be submitted at least 60 days prior to the expiration date of this permit, Rule 62-4.090, F.A.C., until the Department notifies the applicant in writing that the long-term care period for the landfill has been completed.

ISSUED: June 23, 2006

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein

Vivian F. Garfein
Director, Central District
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803

FILING AND ACKNOWLEDGMENT

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

E. Williams

Clerk

June 23, 2006

Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed by certified mail before the close of business on June 23, 2006 to the listed persons.

E. Williams

Clerk

Appendix A

1. Marion County Baseline Landfill Urban (North) Cell Closure Permit Renewal Application, Prepared by: Jones, Edmunds & Associates, Inc., Gainesville, Florida dated April 2006. Received and stamped April 17, 2006, Central District – DEP.

APPENDIX B

DEP Permit #SF42-0103935-008

Specific condition	Requirement	Action	Due date
10	Monitoring Plan Implementation Schedule (MPIS)	Conduct required semiannual ground water monitoring	Twice each year
13.1	Long-term care period	Monitor and maintain the facility in accordance with the approved closure plan	For 20 years following closure (December 14, 1993)
13.3	Quarterly gas monitoring	Monitor once a quarter	Submit quarterly monitoring report results to the Department within 30 days of receipt of data
13.7	Replacement of damaged or faulty monitoring devices	Notify the Department in writing	Immediately upon discovery
13.7	Replacement of damaged or faulty monitoring devices	Replace with functioning devices	Within 60 days of discovery
17	Annual cost estimates and financial instrument adjustments	Annually adjust the closure and long-term care cost estimates, and funding of the financial assurance mechanism	Submit between January 1 and March 1 of each year
18	Permit renewal (permit expires 05/25/2016)	Submit application for permit renewal	Before 3/24/2016 (at least 60 days prior to permit expiration)

EXHIBIT I

BASELINE LANDFILL

WACS_FACILITY: 20906

MONITORING PLAN IMPLEMENTATION SCHEDULE (REVISED 06/09/06)

GENERAL

1. The permittee must initiate implementation of this Monitoring Plan within ninety (90) days from the date of permit issuance. [***62-701.510(1)(b)&(c), 62-522.600(5), Florida Administrative Code (F.A.C.)***]

2. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with Chapter 62-160 Florida Administrative Code (F.A.C.). Approved methods as published by the Department or as published in Standard Methods, ASTM, or EPA Methods shall be used. [***62-701.510(2)(b), F.A.C.***]

3. The organization collecting samples at this site must use the Field and Laboratory Standard Operating Procedures (DEP-SOP-001/01) in Chapter 62-160, F.A.C. Sampling personnel must have a copy of the SOP for purging and sampling in the field when sampling and must be knowledgeable of its contents, procedures, and forms. The laboratory designated to conduct the chemical analyses must be certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP). This Certification must be for the test method and analyte(s) that are reported. [***62-160.210(1), 62-160.320(1), F.A.C.***]

   NOTE: DEP-SOP-001/01 can be accessed at: http://www.dep.state.fl.us/labs/qa/sops.htm

4. If, at any time, analyses detect parameters which are significantly above background water quality, or which are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., in the detection wells or at the edge of the Zone of Discharge, the Permittee shall resample the wells within thirty (30) days after the sampling data are received, to confirm the data. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. If the data are confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department in writing within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring in accordance with Rule 62-701.510(7) F.A.C. [***62-701.510(7)(a), F.A.C.***]

GROUND WATER QUALITY MONITORING

5. The fifteen (15) ground water monitoring wells designated for water quality testing and water level measurements are listed on **Attachment A** and are shown on **Attachment B**. [***62-701.510(3)(d)2 & 3, F.A.C.***]

   NOTE: Unless otherwise approved by the Department, wells with high turbidities must be remediated or reinstalled to reduce the turbidity value to less than 20 NTU prior to sample collection. Should any ground water sample exhibit dissolved oxygen concentrations greater than 20% of oxygen saturation at the

field measured temperature, the sampled well must be repurged then resampled as soon as an acceptable dissolved oxygen value has been attained unless it can be demonstrated that in situ ground water contains higher levels of dissolved oxygen. All water quality analyses will be performed on unfiltered samples unless approved by the Department.

6. Samples from the fifteen (15) ground water monitoring wells shall be collected semi-annually in February and August. The samples shall be analyzed for the list of Semi-Annual Ground Water Parameters on **Attachment C**. [***62-701.510(1)(a)2, 62-701.510(8)(a), F.A.C.***]

   Please confer with your consultant and analytical laboratory prior to sampling to ensure the analytical method is capable of achieving detection limits at or below the Ground Water Cleanup Target Levels (GCTLs) in Chapter 62-777, F.A.C. GCTLs are used as screening tools and interim guidelines for ground water minimum criteria until standards are promulgated. [***62-701.510(6)(b)1 & 2, 62-701.510(6)(d) & (8)(a) & (d), F.A.C.***]

7. Ground water levels in all wells, whether sampled or not, must be measured to the nearest 0.01 foot and reported semiannually unless required more frequently by permit condition. All water level measurements must be made within a one-day period. These measurements must be referenced to the National Geodetic Vertical Datum of 1929 (NGVD). [***62-701.510(9)(a), F.A.C.***]

LEACHATE QUALITY MONITORING

8. The site designated for leachate quality testing is L-1. The site is listed on **Attachment A** and shown on **Attachment B**. [***62-701.510(5), F.A.C.***]

9. Samples from the leachate monitoring site shall be collected annually in August. The samples shall be analyzed for the list of Annual Leachate Parameters on **Attachment E**. If the annual analysis indicates that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall initiate monthly sampling and analysis and shall notify the Department in writing. 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. [***62-701.510(6)(c)1 & 2, F.A.C.***]

MONITORING WELL REQUIREMENTS

10. If a monitoring well becomes damaged or inoperable, the Permittee shall notify the Department in writing within seven (7) days. The written report shall describe what problem has occurred and the remedial measures that have been taken to prevent a recurrence. The Department can require the replacement of inoperable monitoring wells. [***62-4.070(3), F.A.C.***]

11. New or replacement monitoring well design or placement must be approved by the Department. Proposed well construction details based on site-specific borings must be submitted with all supporting data (grain size distribution analyses, in-situ hydraulic conductivity testing, depth to water, etc.) for Department approval prior to well installation. Use of hollow stem auger

equipment is recommended. Other drilling methods must be approved by the Department prior to well installation. [*62-522.600(3), F.A.C.*]

12. All wells shall be clearly and permanently labeled and the well site maintained so that the well is visible at all times. Protective barriers must be installed at all wells that may be subject to damage by heavy equipment or traffic. [*62-701.510(3)(d)2, F.A.C.*]

13. An abandonment plan for abandoning any well that is unsuitable for ground water monitoring must be approved by the Department prior to abandonment. [*62-701.510(3)(d)5, F.A.C.*]

REPORTING REQUIREMENTS

GENERAL

14. The Department must be notified in writing at least fourteen (14) days prior to the installation and/or sampling of any monitoring well(s). [*62-701.510(9)(a), F.A.C.*]

15. One paper copy of **Attachment F**, Monitoring Well Completion Report Form, must be submitted to the Department within thirty (30) days after installation of new or replacement monitoring wells. **NOTE:** the top of casing elevation of each well, to an accuracy of 0.01 feet, and the latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and certified by a Florida Licensed Surveyor and Mapper and provided on the form. In addition, as built well construction diagrams and soil boring logs that cover the entire depth of the monitoring well(s) must be submitted to the Department. [*62-701.510(3)(d)1, 62-532.410, 62-4.070(3), F.A.C.*]

16. A drawing must be submitted within thirty (30) days following monitoring well installation showing the location of all monitoring wells (active and abandoned), water bodies and waste filled areas. The location of features on the drawing must be horizontally and vertically located by standard surveying techniques. The drawing shall include all monitoring well locations, each monitoring well name and identification (WACS) number, the top of casing, pad elevation, permanent benchmark(s) and/or corner monument marker(s) referenced to NGVD with an accuracy of 0.01 feet. The latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, with an accuracy of 15 feet, must be determined and provided on the drawing. The survey shall be conducted and certified by a Florida Licensed Surveyor and Mapper [*701.510(1)(c), 62-701.510(3)(d) 1, F.A.C.*]

17. A total depth measurement must be made on all wells at time of permit renewal. This measurement is to be reported as total apparent depth below ground surface and should be compared to the original total depth of the well. [*62-701.510(1)(c), F.A.C.*]

ANNUAL AND SEMI-ANNUAL

18. Required monitoring reports must be submitted to the Department within sixty (60) days of receipt of analysis from the laboratory. There are two options for submitting water quality data, paper or electronic. [*62-701.730(4)(b), 62-4.070(3), F.A.C.*]

Paper Only Reporting: One (1) copy of the monitoring report shall be submitted at the required time. The report shall include documents as listed in Table 1.

Electronic Laboratory Analysis Reporting: One (1) copy of the paper portion of a monitoring report shall be submitted at the required time along with the disc containing the water quality data as listed in Table 1. The data required on the disc is listed on ftp://ftp.dep.state.fl.us/pub/labs/lds/validator/validator_fields.pdf.

To decrease the need for resubmittal you may evaluating data prior to submittal at http://www.floridadep.org/labs/software/index.htm.

A sample text file may be viewed at http://www.floridadep.org/labs/software/docs/sampledata.txt

Interpretative documents such as exceedence recommendations and/or contour maps must be certified by a professional licensed in state of Florida whose expertise is related to the document.

Table 1. Reporting Requirements

Documents	Paper report	Electronic Report*
Sampling notification	Paper or electronic	Paper or electronic
Cover letter	Paper	Paper
Summary of exceedences and recommendations	Paper	Paper
Ground water contour maps	Paper	Paper
Survey drawings	Paper	Paper
Lab certification report form **(Attachment G)**	Paper	Paper
Field data sheets/sampling logs **(Attachment H)**	Paper	Paper
Chain of custody	Paper	Paper
Water levels –water elevation table	Paper	Paper
Total depth measurements	Paper	Paper
Lab quality control report	Paper	Paper
Lab data sheets	Paper	Not applicable**
DEP parameters report forms	Paper	Not applicable**
Lab data in Excel tab-delimited format compatible with Validator, plus the same spread sheet in pdf form	Not applicable	Electronic

*Electronic Compact disc media readable by a Microsoft Windows computer
**The tab-delimited text file on the disc replaced these documents

19. Water levels in all monitoring wells, whether sampled or not, must be measured to the nearest 0.01 foot and reported semi-annually unless required more frequently by permit condition. All water level measurements must be made within a one-day period. These measurements should be reported in a table that

includes well or surface water point name, date water level measured, measuring point elevation referenced to NGVD, depth to water and calculated water level elevation referenced to NGVD. [*62-701.510(9)(a)8, F.A.C.*]

20. A ground water elevation contour map for each monitored aquifer zone must be submitted semi-annually to the Department. Ground water elevation contour map(s) should include monitoring well locations, ground water elevation at each monitoring well location referenced to NGVD, a bar scale, ground water contour interval, date of measurement and ground water flow direction. The map(s) must incorporate adjacent and on-site surface water elevations where appropriate. These maps shall be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a licensed professional who is able to demonstrate competence in this subject area. [*62-701.510(9)(a)9, F.A.C.*]

BIENNIAL

21. One copy of a technical report shall be submitted to the Department every two years, and shall be updated at the time of permit renewal. The first report is due 30 days after the submittal of the monitoring data for the fourth ground water sampling event. Subsequent reports are due 30 days after the submittal of the fourth sampling event following the previous biennial report. The report shall summarize and interpret the water quality data and water level measurements collected during the past four years. The report shall contain, at a minimum, the following:

    a. Tabular and graphical displays of any data that shows that a monitoring parameter has been detected, including hydrographs for all monitoring wells.
    b. Trend analyses of any monitoring parameters detected.
    c. Comparisons among shallow, middle, and deep zone wells.
    d. Comparison between upgradient and downgradient wells.
    e. Correlation between related parameters such as total dissolved solids and specific conductance.
    f. Discussion of erratic and/or poorly correlated data.
    g. An interpretation of the ground water contour maps, including an evaluation of ground water flow rates.
    h. An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

    This report must be signed and sealed pursuant to Florida Statutes (F.S.) Chapters 471 and 492 which require that documents requiring the practice of professional engineering or professional geology, as described in Chapter 471 or 492, F.S., be signed and sealed by the professional(s) who prepared or approved them. This certification must be made by a licensed professional who is able to demonstrate competence in the subject area(s) addressed within the sealed document. [*62-701.510(9)(b), F.A.C.*]

List of Attachments

Attachment A - Well List

Attachment B - Map

Attachment C - Semi-annual Ground Water Parameters

Attachment D – Annual Leachate Parameters

Attachment E - Monitoring Well Completion Form

Attachment F - Ground Water Monitoring Report Form

Attachment G - Water Sampling Form

ATTACHMENT A

BASELINE LANDFILL

WACS_FACILITY: 20906

MONITORING SITES

MONITORING SITE_NUM	WACS_ WELL	WELL_ TYPE	ZONE/LOCATION MONITORED	GW/SW CLASS	WACS REPORT TYPE
GROUND WATER					
MW-2	12803	CO	FLORIDAN	G-II	SEMGW
MW-5A	12859	CO	FLORIDAN	G-II	SEMGW
MW-6	12829	CO	FLORIDAN	G-II	SEMGW
MW-7	12798	CO	FLORIDAN	G-II	SEMGW
MW-8D	12819	CO	FLORIDAN	G-II	SEMGW
MW-9	12812	CO	FLORIDAN	G-II	SEMGW
MW-11	12831	CO	FLORIDAN	G-II	SEMGW
MW-12	12832	CO	FLORIDAN	G-II	SEMGW
MW-13	12833	CO	FLORIDAN	G-II	SEMGW
MW-14	12834	CO	FLORIDAN	G-II	SEMGW
MW-15	12862	BG	FLORIDAN	G-II	SEMGW
MW-16	12923	BG	FLORIDAN	G-II	SEMGW
P-17	12924	BG	FLORIDAN	G-II	SEMGW
P-21	12860	CO	UNCONSOLIDATED SEDIMENTS	G-II	SEMGW
P-22	12861	CO	FLORIDAN	G-II	SEMGW
P-26	21905	CO	FLORIDAN	G-II	SEMGW
P-27	21906	CO	FLORIDAN	G-II	SEMGW
LEACHATE					
L-1	12922	CO	LEACHATE TANK	LC	ANNLC

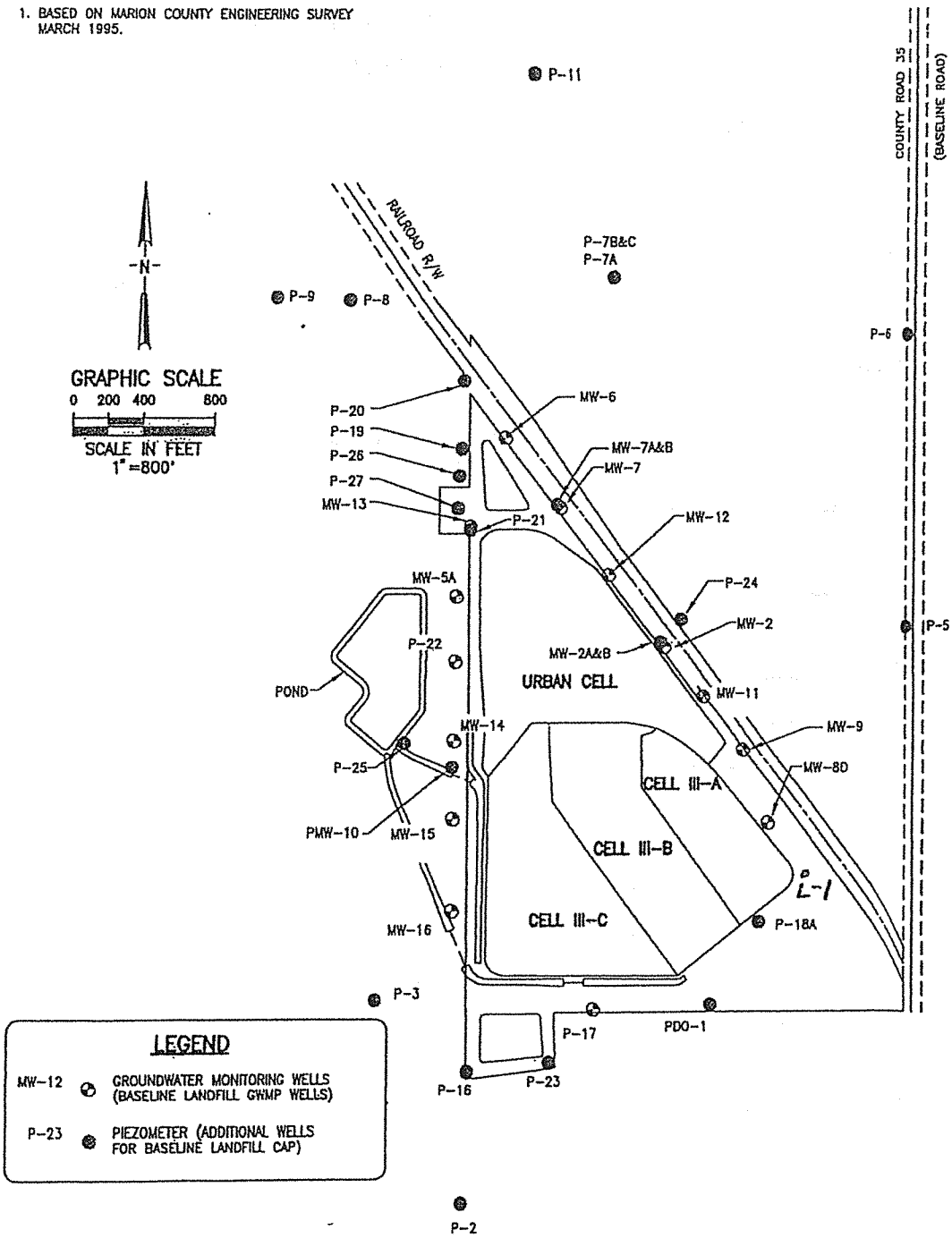
Well Type Codes
(DG) Downgradient
(SO) Source
(AS) Assessment
(IM) Intermediate
(UP) Upgradient
(BG) Background
(IW) Irrigation Well
(WS) Water supply
(CO) Compliance
(OT) Other
(DE) Detection
(PZ)Piezometer

06/09/06

ATTACHMENT B

NOTES:

1. BASED ON MARION COUNTY ENGINEERING SURVEY MARCH 1995.



MARION COUNTY BASELINE LANDFILL

JONES EDMUNDS

Plotted: 1/19/06 2:49pm BAlthofer

\\Jeacad\drafting\13150 Marion County\gwm\Baseline Landfill\baseline well locations.dwg

Edited: 01/18/06 15:06 BAlthofer

ATTACHMENT C
BASELINE LANDFILL

PARAMETER MONITORING REPORT
Rule 62-701.510(8)(a)

WACS Report Type: SEMGW

Semi-Annual Ground Water Monitoring (Page 1 of 4)

WACS_FACILITY 20906 _____ SAMPLING DATE/TIME _____

WACS_WELL _____ SAMPLING METHOD _____

MONITORING_SITE_NUM _____

Ground water classification: G-II

Well Purged prior to
Sample Collection? (Y/N) _____

PERMITTED: ___ (AS) Assessment (IW) Irrigation Well
WELL TYPE (BG) Background (OT) Other
(CO) Compliance (PZ) Piezometer
(DE) Detection (SO) Source
(DG) Downgradient (UP) Upgradient
(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (Y/N)	PRESERV. INTACT (Y/N)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
082545	Water Elevation (NGVD)							Ft	
000010	Temperature (field)							deg C	
000299	Dissolved Oxygen (field)							Mg/L	
000406	pH (field)							STD	
000094	Spec. Conductance (field)							Umhos/cm	
082078	Turbidity (field)							NTU	
000610	Total Ammonia as N							Mg/L	
000940	Chlorides							Mg/L	
000620	Nitrate as N							Mg/L	
070300	Total Dissolved Solids							Mg/L	
	METALS								
001097	Antimony							Ug/L	
001002	Arsenic							Ug/L	
001007	Barium							Ug/L	
001012	Beryllium							Ug/L	
001027	Cadmium							Ug/L	
001034	Chromium							Ug/L	
001037	Cobalt							Ug/L	
001042	Copper							Ug/L	
001045	Iron							Ug/L	
001051	Lead							Ug/L	
071900	Mercury							Ug/l	

ATTACHMENT C
BASELINE LANDFILL

PARAMETER MONITORING REPORT
Rule 62-701.510(8)(a)

WACS Report Type: SEMGW

Semi-Annual Ground Water Monitoring (Page 2 of 4)

WACS_FACILITY 20906 _____ SAMPLING DATE/TIME _____

WACS_WELL _____ SAMPLING METHOD _____

MONITORING_SITE_NUM _____

Ground water classification: G-II

Well Purged prior to
Sample Collection? (Y/N) _____

PERMITTED: ___ (AS) Assessment (IW) Irrigation Well
WELL TYPE (BG) Background (OT) Other
(CO) Compliance (PZ) Piezometer
(DE) Detection (SO) Source
(DG) Downgradient (UP) Upgradient
(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (Y/N)	PRESERV. INTACT (Y/N)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
001067	Nickel							Ug/L	
001147	Selenium							Ug/L	
001077	Silver							Ug/L	
000929	Sodium							Mg/L	
001059	Thallium							Ug/L	
001087	Vanadium							Ug/L	
001092	Zinc							Ug/L	
	ORGANICS								
081552	Acetone							Ug/L	
034215	Acrylonitrile							Ug/L	
034030	Benzene							Ug/L	
073085	Bromochloromethane							Ug/L	
032101	Bromodichloromethane							Ug/L	
032104	Bromoform							Ug/L	
034413	Bromomethane							Ug/L	
077041	Carbon Disulfide							Ug/L	
032102	Carbon Tetrachloride							Ug/L	
034301	Chlorobenzene							Ug/L	
034311	Chloroethane							Ug/L	
032106	Chloroform							Ug/L	
034418	Chloromethane							Ug/L	
032105	Dibromochloromethane							Ug/L	

ATTACHMENT C
BASELINE LANDFILL

PARAMETER MONITORING REPORT
Rule 62-701.510(8)(a)

WACS Report Type: SEMGW

Semi-Annual Ground Water Monitoring (Page 3 of 4)

WACS_FACILITY 20906 _____ SAMPLING DATE/TIME _____

WACS_WELL _____ SAMPLING METHOD _____

MONITORING_SITE_NUM _____

Ground water classification: G-II

Well Purged prior to
Sample Collection? (Y/N) _____

PERMITTED: ___ (AS) Assessment (IW) Irrigation Well
WELL TYPE (BG) Background (OT) Other
(CO) Compliance (PZ) Piezometer
(DE) Detection (SO) Source
(DG) Downgradient (UP) Upgradient
(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (Y/N)	PRESERV. INTACT (Y/N)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
038437	1,2-Dibromo-3-chloropropane							Ug/L	
077651	1,2-Dibromoethane							Ug/L	
034536	1,2-Dichlorobenzene							Ug/L	
034571	1,4-Dichlorobenzene							Ug/L	
049263	trans-1,4-Dichloro-2-butene							Ug/L	
034496	1,1-Dichloroethane							Ug/L	
034531	1,2-Dichloroethane							Ug/L	
034501	1,1-Dichloroethene							Ug/L	
077093	cis-1,2-Dichloroethene							Ug/L	
034546	trans-1,2-Dichloroethene							Ug/L	
034541	1,2-Dichloropropane							Ug/L	
034704	cis-1,3-Dichloropropene							Ug/L	
034699	trans-1,3-Dichloropropene							Ug/L	
034371	Ethylbenzene							Ug/L	
077103	Methyl butyl ketone							Ug/L	
034418	Methyl chloride							Ug/L	
081595	Methyl ethyl ketone							Ug/L	
077424	Methyl iodide							Ug/L	
077596	Methylene bromide							Ug/L	
034423	Methylene chloride							Ug/L	
081596	Methyl isobutyl ketone							Ug/L	
077128	Styrene							Ug/L	

ATTACHMENT C
BASELINE LANDFILL

PARAMETER MONITORING REPORT
Rule 62-701.510(8)(a)

WACS Report Type: SEMGW

Semi-Annual Ground Water Monitoring (Page 4 of 4)

WACS_FACILITY 20906 SAMPLING DATE/TIME _____

WACS_WELL _____ SAMPLING METHOD _____

MONITORING_SITE_NUM _____

Ground water classification: G-II

Well Purged prior to
Sample Collection? (Y/N) _____

PERMITTED: ___ (AS) Assessment (IW) Irrigation Well
WELL TYPE (BG) Background (OT) Other
(CO) Compliance (PZ) Piezometer
(DE) Detection (SO) Source
(DG) Downgradient (UP) Upgradient
(IM) Intermediate (WS) Water supply

STORET CODE	PARAMETER MONITORED	ANALYSIS DATE	FIELD FILTERED (Y/N)	PRESERV. INTACT (Y/N)	ANALYSIS METHOD	ANALYSIS RESULT	DETECTION LIMIT	UNITS	QUALIFIER
077562	1,1,1,2-Tetrachloroethane							Ug/l	
034516	1,1,2,2-Tetrachloroethane							Ug/L	
034475	Tetrachloroethene							Ug/L	
034010	Toluene							Ug/L	
034506	1,1,1-Trichloroethane							Ug/L	
034511	1,1,2-Trichloroethane							Ug/L	
039180	Trichloroethene							Ug/L	
034488	Trichlorofluoromethane							Ug/L	
077443	1,2,3-Trichloropropane							Ug/L	
077057	Vinyl Acetate							Ug/L	
039175	Vinyl Chloride							Ug/L	
034020	Xylenes							Ug/L	

JONES EDMUNDS®

May 5, 2015

Marion County
MAY 2015
Solid Waste Dept

Mike Sims, Director
Marion County Solid Waste Division
5601 SE 66th Street
Ocala, Florida 34480

xc: Larry 5/8/15
Mike

RE: Marion County Baseline Landfill
2015 Capacity Analysis and Design Life Projections
Jones Edmunds Project No.: 13150-226-01

Dear Mr. Sims:

This letter presents updated lifespan projections based on the most recent 2015 survey and an updated annual filling rate based on Marion County tonnage data. The design life projections are based on an evaluation of the landfill capacity for the current closure plan, which includes the vertical and side-slope expansion (permitted by the Florida Department of Environmental Protection in 2009). The current closure plan includes 3 horizontal to 1 vertical (3H:1V) side slopes, approximately 50-foot vertical spacing between stormwater control benches, a geosynthetic and soil final cover design, and a conceptual final haul road based on the current permit.

Figures (Attachment 1) show the 2015 the aerial photo, site plan, final closure design, topographic survey, and cross section. The landfill capacity and design life projections (Attachment 2) are based on the parameters defined in the calculation spreadsheet. Table 1 summarizes the calculated remaining design life.

Table 1 Design Life Calculations Summary

Design Life Calculation Scenario	2015 Waste Flow Rate (tons/yr)	Population Growth Rate (%)	Waste Weight-to-Volume Ratio (Density) (tons/cy)	Remaining Design Life (years)	Calculated Closure Date
Estimated Closure (Planning)	134,000	1.6% to 1.8%	0.70	6.0	January 2021

Table 1 Design Life Calculations Summary					
Design Life Calculation Scenario	2015 Waste Flow Rate (tons/yr)	Population Growth Rate (%)	Waste Weight-to-Volume Ratio (Density) (tons/cy)	Remaining Design Life (years)	Calculated Closure Date
Calculated Waste Density	134,000	1.6% to 1.8%	0.80	6.8	November 2021

The estimated closure date for planning purposes is January 2021 using the waste density value of 0.70 tons/cy consistent with last year's calculation. The calculated closure date changed from the 2013 estimated closure date of September 2021 due to changes in calculation parameters.

To show the range of remaining design life estimates, the remaining design life calculation using the calculated waste density shows an estimated closure date of November 2021 (Attachment 3), indicating the potential variation in estimated closure dates.

Jones Edmunds appreciates the opportunity to serve Marion County. If you have any questions or comments, please feel free to contact me at (352) 377-5821 or mpollman@jonesedmunds.com.

Sincerely,

M Pollman

Mickey Pollman
Project Manager

\\Gnv-projects\projects\13150-MarionCounty\226-01-2015BaselineLFSurveyCapacity\2-Capacity Analysis\20150505-LTR-MSims-FINAL-2015CapacityAnalysis.doc

Attachments: Attachment 1 – Figures
Attachment 2 – 2015 Capacity and Design Life Calculation
Attachment 3 – Calculated Waste Density Design Life Calculation

xc: Larry Starkey, Marion County Solid Waste Department
James Larramore, Marion County Solid Waste Department

ATTACHMENT 1

CAPACITY ANALYSIS AND DESIGN LIFE FIGURES

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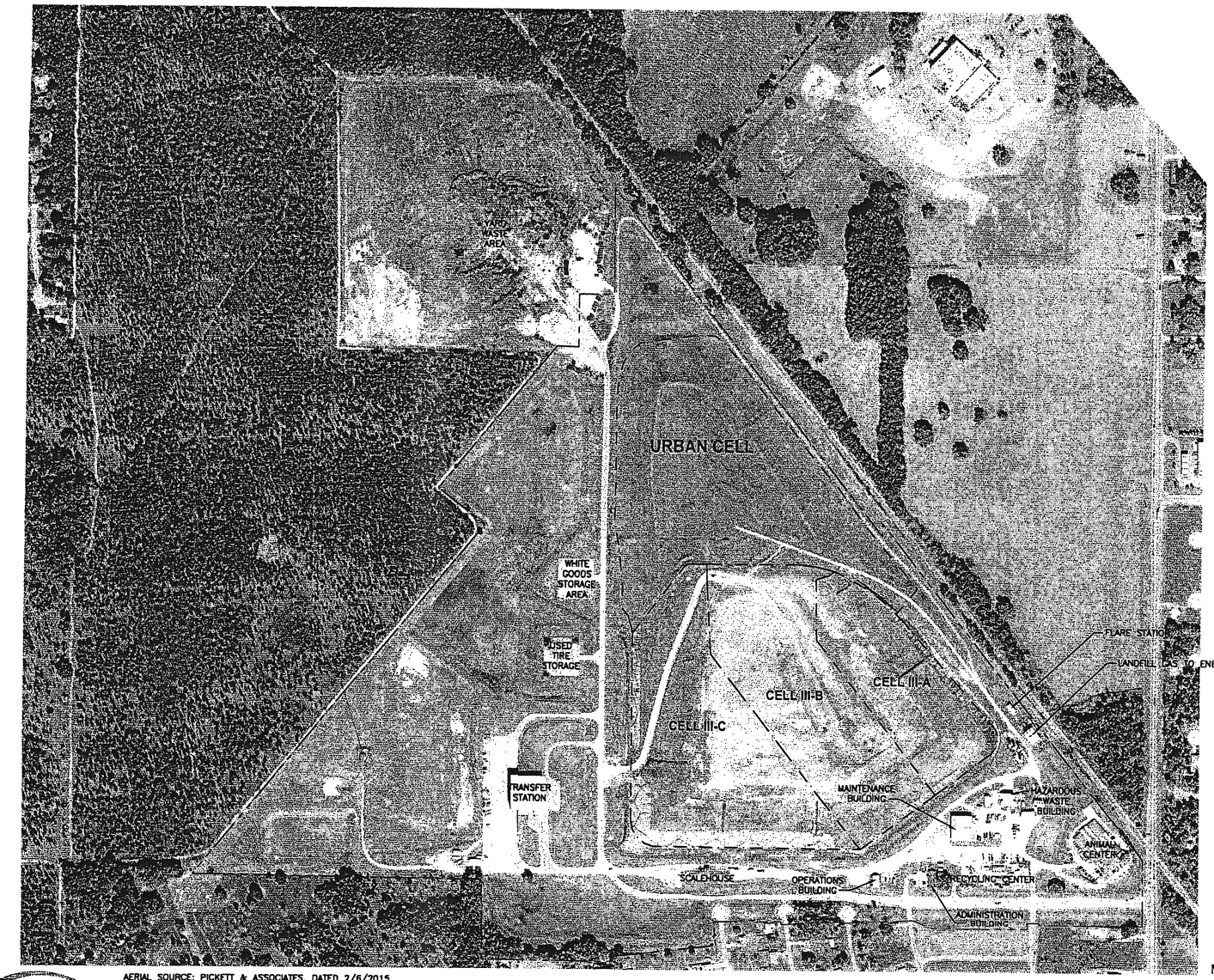

-N-

GRAPHIC SCALE

0 125 250 500

SCALE IN FEET
1"=250'

AERIAL SOURCE: PICKETT & ASSOCIATES, DATED 2/6/2015.

FIGURE 1
2015 AERIAL PHOTO
BASELINE LANDFILL
MARION COUNTY, FLORIDA

JONES EDMUNDS

13150-226-01

LAST SAVED:1/7/2015 3:02 PM BY:GBUCK PATH:\\JEACAD\DRAFTING\13150 MARION COUNTY\226 BASELINE LIFESPAN ANALYSIS 2015\13150226-FIG1.DWG PLOTTED:1/7/2015 03:06 PM BY:BUCK GOLDEN

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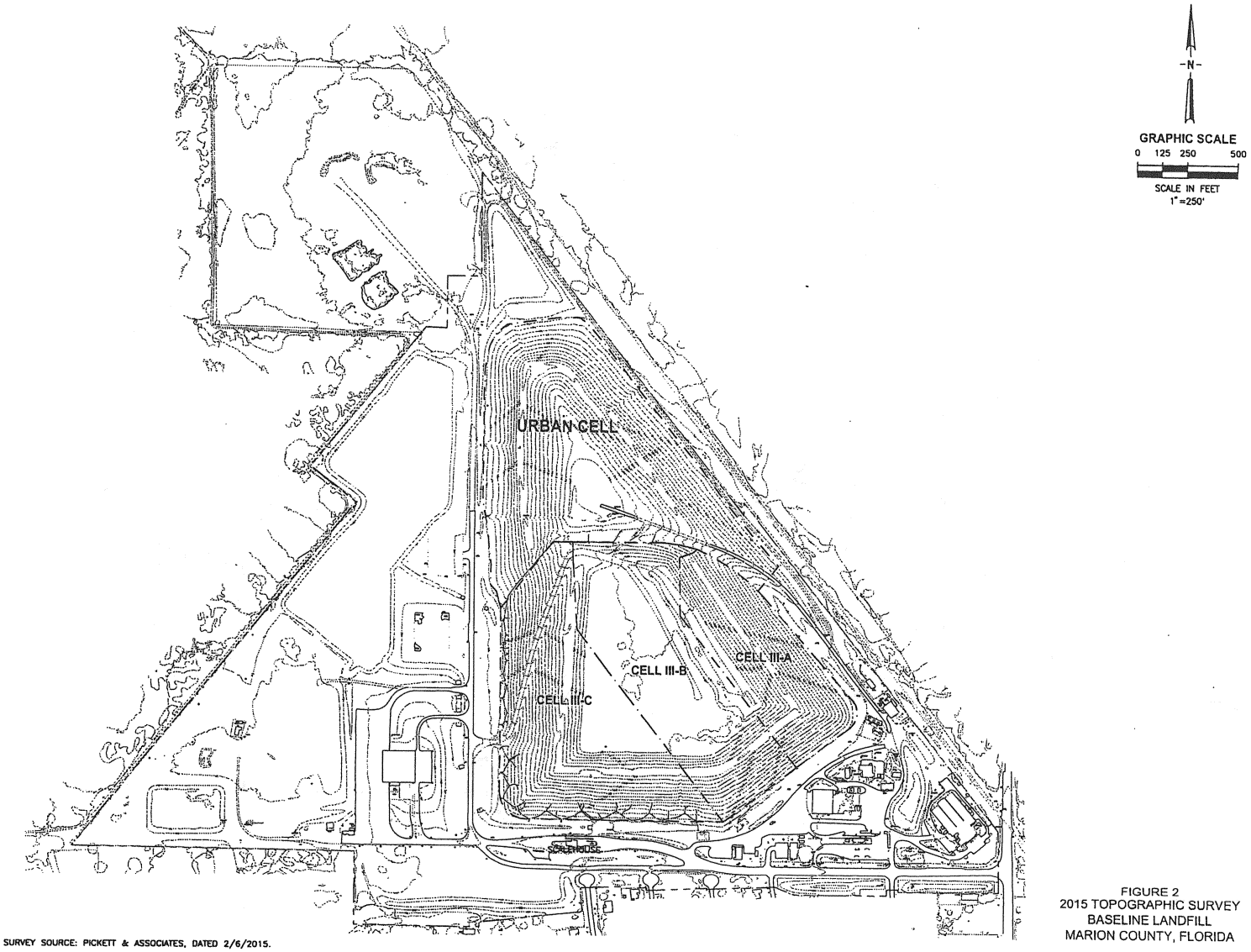
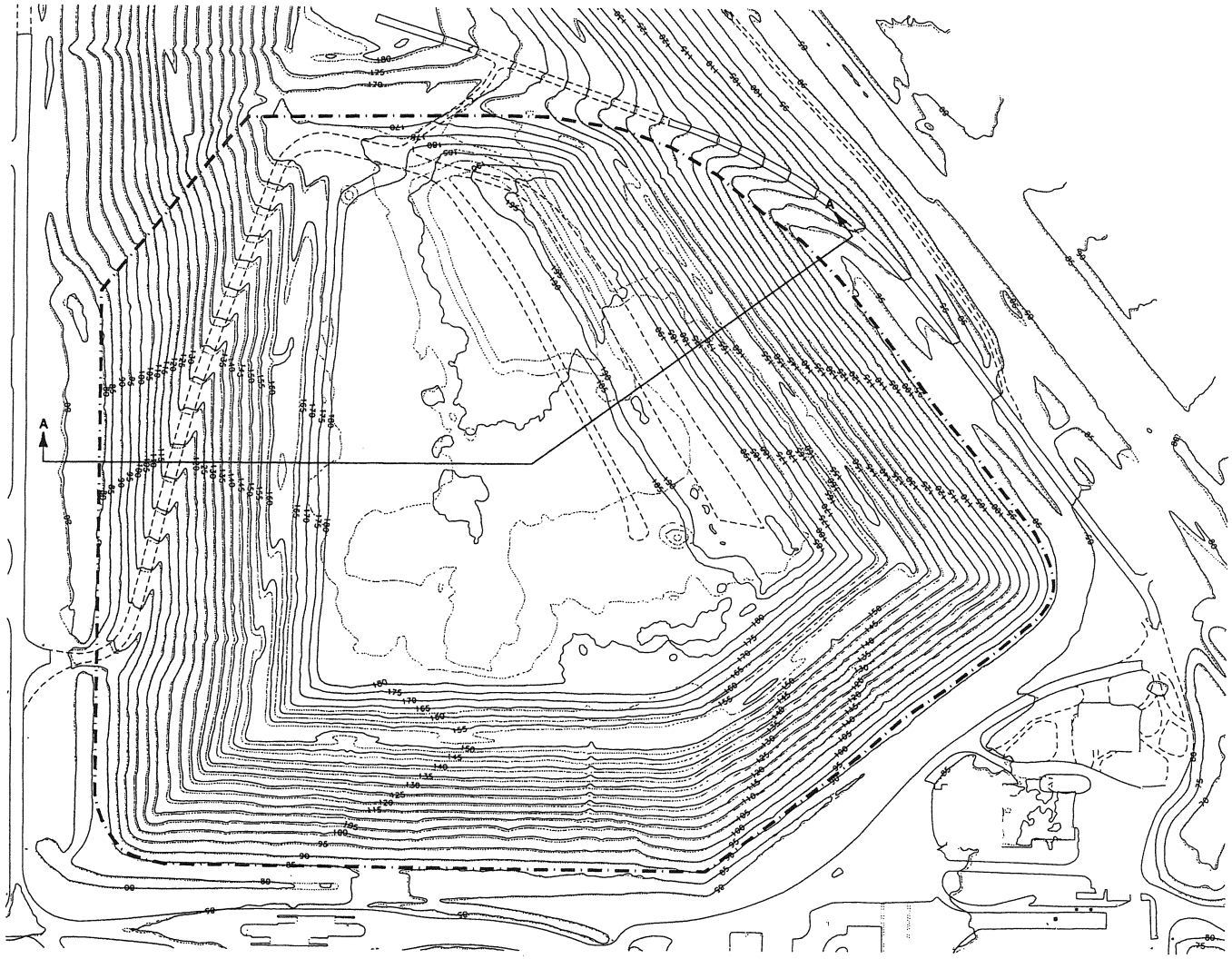


SURVEY SOURCE: PICKETT & ASSOCIATES, DATED 2/6/2015.

FIGURE 2
2015 TOPOGRAPHIC SURVEY
BASELINE LANDFILL
MARION COUNTY, FLORIDA

JONES EDMUNDS

LAST SAVED:4/2/2015 3:04 PM BY:BUCK PATH=\\JEACAD\DRAFTING\13150 MARION COUNTY\226 BASELINE LIFESPAN ANALYSIS 2015\13150226-FIG2.DWG PLOTTED:4/2/2015 03:06 PM BY:BUCK COLDEN
13150-226-01



LEGEND

- 3/27/2013 SURVEY CONTOURS
- 2/6/2015 SURVEY CONTOURS
- CELL III EDGE OF LINER
- LIMEROCK ROAD

JONES EDMUNDS

FIGURE 3
SURVEY PLAN
BASELINE LANDFILL
MARION COUNTY, FLORIDA

LAST SAVED:4/2/2015 3:54 PM BY:CBUCK PATH:\\JACAD\DRAWINGS\13150 MARION COUNTY\226 BASELINE LIFESPAN ANALYSIS 2015\13150226-FIG3.DWG PLOTTED:4/2/2015 03:06 PM BY:BUCK GOLDEN
13150-226-01

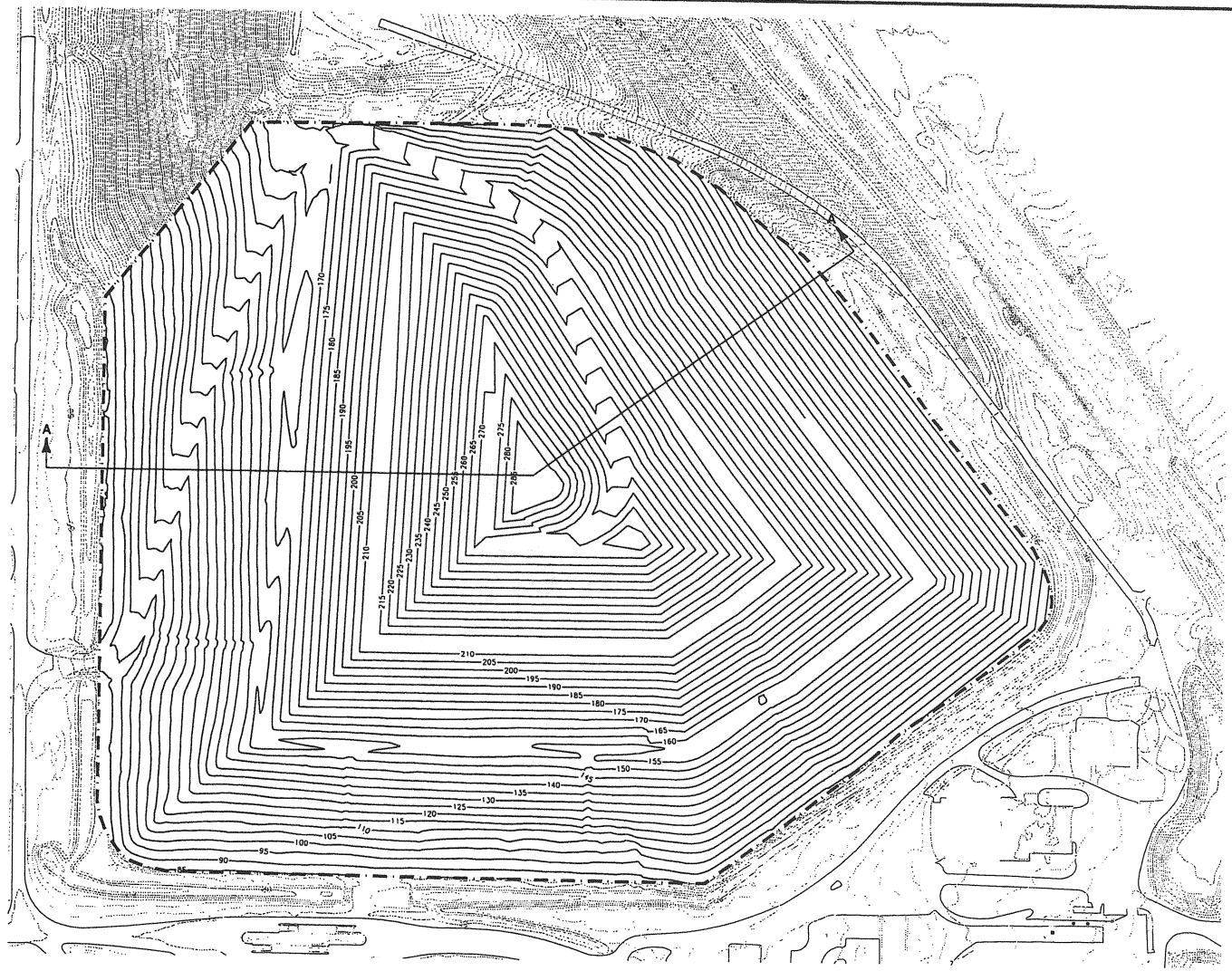


FIGURE 4
CONCEPTUAL FINAL WASTE ELEVATIONS
BASELINE LANDFILL
MARION COUNTY, FLORIDA

JONES EDMUNDS

13150-226-01

LAST SAVED:4/2/2015 3:04 PM BY:GBUCK PATH=\\JEACAD\DRAFTING\13150 MARION COUNTY\226 BASELINE LIFESPAN ANALYSIS 2015\13150226-FIG4.DWG PLOTTED:4/2/2015 03:07 PM BY:BUCK GOLDEN

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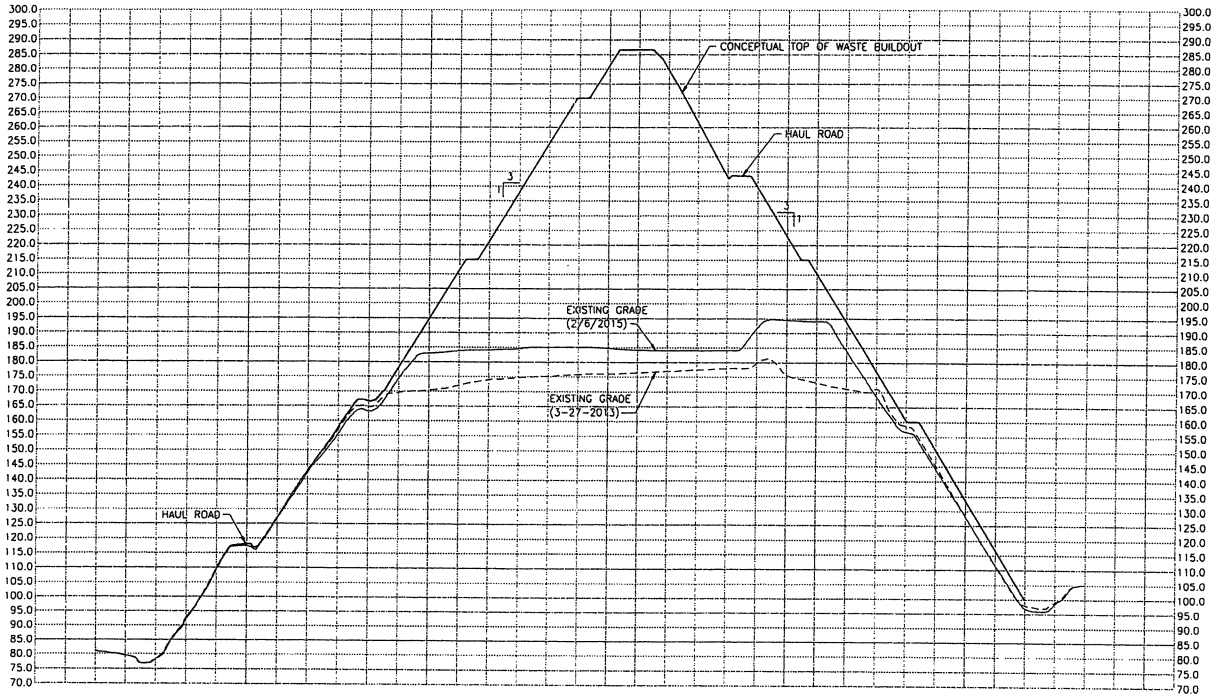

SECTION A-A

1" = 100'H
1" = 20'V

GRAPHIC SCALE
0 50 100 200
SCALE IN FEET
1" = 100' H

GRAPHIC SCALE
0 10 20 40
SCALE IN FEET
1" = 20' V

FIGURE 5
SECTION
BASELINE LANDFILL
MARION COUNTY, FLORIDA

JONES EDMUNDS

LAST SAVED:4/2/2015 3:04 PM BY:GBUCK PATH:\\JEACAD\DRAFTING\13150 MARION COUNTY\216 BASELINE LIFESPAN ANALYSIS 2015\13150226-FIG5.DWG PLOTTED:4/2/2015 03:07 PM BY:BUCK GOLDEN
13150-226-01

ATTACHMENT 2

CAPACITY ANALYSIS AND DESIGN LIFE CALCULATION SPREADSHEETS

JONES EDMUNDS	PROJECT NUMBER: 13150-226-01		
	PROJECT NAME: MARION COUNTY BASELINE LANDFILL		
	SUBJECT: CAPACITY ANALYSIS AND DESIGN LIFE CALCULATIONS		
	BY: M. Pollman	Date:	3/26/15
	CHECKED BY: B. Thomas	Date:	3/30/15

Objective:

1. Calculate the Starting Annual Waste Disposal Rate.
2. Calculate the annual BEBR Population Growth Rate Projections.
3. Calculate the waste to volume ratio (waste density) of waste disposed between surveys.
4. Calculate the volume remaining.
5. Calculate the remaining design life for Baseline Landfill.

Data:

	Capacity Analysis Timeperiod Starting Date =	3/27/2013		*Referred to as 2013*
	Capacity Analysis Timeperiod Ending Date =	2/6/2015		*Referred to as 2015*
V_T =	Total Volume Increase during Timeperiod =	313,221	CY	*(Reference 1)*
V_R =	Disposal Volume Remaining =	1,220,278	CY	*(Reference 1)*
W_T =	Total Tonnage Disposed during Timeperiod =	249,761	Tons	*(Reference 2)*

Calculations:

1. Calculate the starting annual disposal rate: $R_D = (W_T/T) \times (365 \text{ days/yr})$

Where:

R_D =	Starting Annual Waste Disposal Rate			
W_T =	Total Tonnage Disposed during Timeperiod	249,761	Tons	*(Reference 2)*
T =	Length of Timeperiod	681	Days	
R_D =	***249761 Tons / 681 days x (365 days/yr) =***	**134,000**	**Tons/yr**	**(Rounded)**

2. Estimate the future annual growth rate based on BEBR medium population projections. *(Reference 3)*
3. Calculate the waste to volume ratio (apparent waste density) based on the total tonnage disposed from the County's tonnage records and the total volume increase from AutoCAD comparison of the two surveys.

$\sigma_a = W_T/V_T$

Where:

σ_a =	Waste to Volume Ratio					
V_T =	Total Volume Increase during Timeperiod	313,221	CY	*(Reference 1)*		
W_T =	Total Tonnage Disposed during Timeperiod	249,761	Tons	*(Reference 3)*		
σ_a =	**249761 Tons / 313221 CY =**	**0.80**	***tcy***		***1,600***	***pcy***
σ =	***Waste Density used for Lifespan Calcs =**	**0.70**	***tcy***		***1,400***	***pcy***

*Previous Baseline Landfill lifespan calculations used 0.65 tons/cy for the Class I density. Because of efficient operations and waste settlement, the waste density used in the lifespan calculations has been increased to 0.70 tons/cy or 1,400 lb/cy. With all other parameters being equal, a higher waste density results in a longer landfill lifespan

4. Calculate the tonnage projections and the anticipated lifespan for the Landfill.

Medium BEBR Population Projections
3:1 Slope with Peak Elevation=285'

(4) Disposal Volume Remaining (V_R) = 1,220,278 cy *(Reference 1)*

Year	(1) Annual Waste Disposal Rate (T)	(2) Annual Growth Rate *(Reference 3)* (%/yr)	(3) Waste to Volume Ratio (Density) (T/CY)	[(1) / (3)] Volume of Waste Landfilled CY	(5) = Previous Volume Remaining - [(1) / (3)] Annual Volume Remaining (CY)
2015	134,000				1,220,278
2016	136,478	1.8%	0.70	194,969	1,025,309
2017	139,003	1.8%	0.70	198,575	826,733
2018	141,574	1.8%	0.70	202,248	624,485
2019	144,192	1.8%	0.70	205,989	418,496
2020	146,859	1.8%	0.70	209,799	208,697
2021	149,186	1.6%	0.70	213,123	-4,427
(6) Remaining Design Life (years from 2/6/2015)					**6.0**
(7) Expected Closure Date					**January 2021**

Note: Numbering in parenthesis based on discussion items in text.

References:

1. AutoCAD Civil 3D Volume Comparison of 3/27/13 Pickett survey to the 2/6/15 Pickett survey.
   AutoCAD Civil 3D Volume Comparison of 2/6/2015 Pickett survey to the conceptual final cover surface developed previously. No changes to final cover design.
2. Tonnage Data from Marion County e-mails dated 3/26/2015 and 4/2/2015.
3. University of Florida Bureau of Economic and Business Research (BEBR), Florida Population Studies dated April 2014.

JONES EDMUNDS			
	PROJECT NUMBER:	13150-226-01	
	PROJECT NAME:	MARION COUNTY BASELINE LANDFILL	
	SUBJECT:	CAPACITY ANALYSIS AND DESIGN LIFE CALCULATIONS	
	BY:	M. Pollman	Date: 3/26/15
	CHECKED BY:	B. Thomas	Date: 3/30/15

Parameter Definitions:

Capacity Analysis Timeperiod Starting Date =
Date of the most recent survey used to calcualted the remaing design life. This survey was performed by Pickett & Associates, Inc. on February 6, 2015 and received on March 23, 2015.

Capacity Analysis Timeperiod Ending Date =
Date of the previous survey used to calcualted the remaing design life. This survey was performed by Pickett & Associates, Inc. on March 27, 2013.

Total Volume Increase during Timeperiod =
The volume of waste placed between surveys. Calculated using AutoCAD Civil 3D software by subtracting the 2013 topographic surface from the 2015 topographic surface. The value is shown in Reference 1, based on the gross fill value, because we want to account for the total waste filled. The cut value is likely due to waste settlement and not the removal of waste.

Disposal Volume Remaining =
The volume remaining in the Landfill is calculated using CADD software by subtracting the 2015 topographic survey surface from the top of waste surface (determined by subtracting 3-feet of soil from the final closure design surface) (Reference 1), which includes the east side slope expansion and the conceptual haul road. The final closure design was matched to the existing areas that are at final grade along the west and south landfill slopes, including the west access road. The additional waste value resulting from soil excavated as part of the side slope modification is added to the remaining volume (Reference 1). The resulting remaining volume is approximately 1.2 million cubic yards.

Total Tonnage Disposed during Timeperiod =
This is based on the tonnage data provided by Marion County for the waste that is landfilled (Reference 2).

Starting Annual Waste Disposal Rate = R_D =
The 2015 starting annual waste disposal rate in tons per year (tpy) is estimated based on the total waste tonnage landfilled from March 27, 2013 through February 6, 2015 (Reference 2), and converted to an annual average based on the length time period (in days) between surveys converted to an average value over 365 days per year.

Waste to Volume Ratio (Density) = σ_a =
The waste weight-to-volume ratio (density) is used in the design life calculation to convert the waste tonnage landfilled into a volume for determining the volume remaining for each year of active landfilling. The density is calculated by dividing the total tonnage of waste placed between topographic surveys by the total volume of airspace used between topographic surveys. The waste tonnage landfilled from March 27, 2013 through February 6, 2015 was provided by Marion County (Reference 2). The waste volume is calculated by subtracting the 2013 topographic surface from the 2015 topographic surface (with soil stockpiles removed) to determine a volume of airspace used (Reference 1). The results indicate that the density is higher than typical for landfilled waste, indicating efficient operations. Previous Baseline Landfill design life calculations used 0.70 tcy for the Class I waste density. The waste density used in the lifespan analysis is 0.70 tcy to be consistent with the previous calculation. With all other parameters being equal, a higher waste density results in a longer landfill lifespan.

Annual Growth Rate =
An annual growth rate is used in the design life calculation to model the annual increase in waste flow to the landfill due to increasing population. Using the population as the measure for the annual growth rate assumes that the average per capita waste production will remain constant. The annual growth rate calculations range from 1.6% to 1.8% (Attachment 2, Reference 3) based on the University of Florida Bureau of Economic and Business Research (BEBR), Projections of Florida Population by County dated April 2014.

Annual Volume Remaining =
The volume remaining for each year in the active life of the Landfill is calculated for each year until no landfill volume remains (as shown as zero or negative volume remaining). The annual landfill volume remaining is calculated based on the estimated tonnage of waste landfilled (increased annually using the annual growth rate) converted to a volume by dividing it by the waste density. The annual volume landfilled is then subtracted from the volume remaining in the previous year of the landfill's active lifespan.

Remaining Design Life =
The remaining design life is the number of years calculated by iteratively subtracting the annual volume landfilled from the annual volume remaining until the volume remaining becomes zero or negative. If negative volume remains, the fraction of the year remaining is linearly interpolated.

Expected Closure Date
The closure date is determined based on the calculated design life starting from the survey date.

REFERENCE 1

AUTOCAD CIVIL 3D VOLUME REPORT

JONES EDMUNDS	PROJECT NUMBER: 13150-226-01 SHEET: 1 OF 1 PROJECT NAME: MARION COUNTY BASELINE LANDFILL SUBJECT: CAPACITY ANALYSIS AND DESIGN LIFE CALCULATIONS BY: M. Pollman Date: 3/23/15 CHECKED BY: P. Upstill Date: 3/23/15

13150-226-01

Date Requested: 03-23-2015
Volume Requested By: M. Pollman
Volume Performed By: B. Golden
Volume QC Performed By: P. Upstill

Surface Notes

2013Pickett - – Surface created from contours supplied by Pickett & Assoc survey dated March 27, 2013. Boundary applied is EOL for Phase 3.

2015Pickett - – Surface created from contours supplied by Pickett & Assoc survey dated February 6, 2015. Boundary applied is EOL for Phase 3.

Top of Waste with Haul Road - Surface taken from 2011 capacity analysis and lowered 3 feet.

Drawing Used

\\jeacad\drafting\13150 Marion County\Capacity Analysis\226 Baseline Annual Volume 2015\20150323 Annual Volume

Volumes

Index	Base Surface	Comparison Surface	Cut	Fill	Net
1	2013pickett	2015pickett	42,284 CY	313,221 CY	270,936 CY
2	2015pickett	Top of Waste with Haul Road	2,004 CY	1,220,278 CY	1,218,274 CY

REFERENCE 2

MARION COUNTY WASTE TONNAGE DATA

JONES EDMUNDS	PROJECT NUMBER: 13150-226-01 SHEET: 1 OF 1 PROJECT NAME: MARION COUNTY BASELINE LANDFILL SUBJECT: CAPACITY ANALYSIS AND DESIGN LIFE CALCULATIONS BY: M. Pollman Date: 3/26/15 CHECKED BY: B. Thomas Date: 3/30/15

Reference 2 - Baseline LF Waste Tonnage

Waste Tonnage between surveys based on monthly tonnage reports for March 27, 2013 through February 6, 2015.

Material	Tons
Landfilled	
1 -CLASS I-CHARGEABLE	18,787
16 -CLASS I-NO CHARGE	160,401
27 -CLSI-FRANCHISE DISCOUNT	12,738
2 -CLASS 3-CHARGEABLE	32,508
20 -CLASS 3-NO CHARGE	1,979
37 -CLS 3-FRANCHISE DISCOUNT	4,098
21 -WEIGHT ONLY	6,686
3 -ANIMAL CARCASS-CHARGEABLE	473
4 -ANIMAL CARCASS-NO CHARGE	126
30 -SLUDGE-BCC DISCOUNTED	4,273
33 -C & D DEBRIS-CHARGEABLE	7,615
5 -SPECIAL HANDLING	78
Total Landfilled Waste	**249,761**

REFERENCE 3

MARION COUNTY POPULATION GROWTH CALCULATIONS

JONES EDMUNDS

PROJECT NUMBER: 13150-226-01 SHEET: 1 OF 1
PROJECT NAME: MARION COUNTY BASELINE LANDFILL
SUBJECT: CAPACITY ANALYSIS AND DESIGN LIFE CALCULATIONS
BY: M. Pollman Date: 3/26/15
CHECKED BY: B. Thomas Date: 3/30/15

Year	BEBR Population Projections						4% Annual Increase	
	Low	Percent Increase	Medium	Percent Increase	High	Percent Increase		
2013	335,008		335,008		335,008		335,008	
2014	326,100	-2.7%	339,287	1.3%	349,308	4.3%	348,408	
2015	326,100	0.0%	347,000	2.3%	367,800	5.3%	362,345	
2016	329,277	1.0%	353,418	1.8%	377,387	2.6%	376,838	
2017	332,486	1.0%	359,955	1.8%	387,224	2.6%	391,912	
2018	335,726	1.0%	366,613	1.8%	397,317	2.6%	407,588	
2019	338,997	1.0%	373,394	1.8%	407,674	2.6%	423,892	
2020	342,300	1.0%	380,300	1.8%	418,300	2.6%	440,848	
2021	344,570	0.7%	386,326	1.6%	427,981	2.3%	458,482	*1.8%*
2022	346,854	0.7%	392,447	1.6%	437,887	2.3%	476,821	
2023	349,154	0.7%	398,666	1.6%	448,021	2.3%	495,894	
2024	351,469	0.7%	404,983	1.6%	458,391	2.3%	515,729	
2025	353,800	0.7%	411,400	1.6%	469,000	2.3%	536,359	
2026	355,248	0.4%	417,024	1.4%	478,710	2.1%	557,813	
2027	356,702	0.4%	422,725	1.4%	488,620	2.1%	580,125	
2028	358,162	0.4%	428,504	1.4%	498,736	2.1%	603,330	
2029	359,628	0.4%	434,362	1.4%	509,061	2.1%	627,464	
2030	361,100	0.4%	440,300	1.4%	519,600	2.1%	652,562	
2031	361,797	0.2%	445,610	1.2%	529,366	1.9%	678,665	
2032	362,496	0.2%	450,985	1.2%	539,315	1.9%	705,811	
2033	363,196	0.2%	456,424	1.2%	549,452	1.9%	734,044	
2034	363,897	0.2%	461,929	1.2%	559,779	1.9%	763,406	
2035	364,600	0.2%	467,500	1.2%	570,300	1.9%	793,942	
2036	364,239	-0.1%	471,954	1.0%	579,480	1.6%	825,699	
2037	363,879	-0.1%	476,451	1.0%	588,807	1.6%	858,727	

Note: 2013, 2015, 2020, 2025, 2030, and 2035 population data based on data from University of Florida Bureau of Economic and Business Research (BEBR), Florida County Population Projections (Released April 2014) Florida https://www.bebr.ufl.edu/population/products. All other years are interpolated.

ATTACHMENT 3

CALCULATED WASTE DENSITY
DESIGN LIFE
CALCULATION SPREADSHEETS

JONES EDMUNDS	PROJECT NUMBER: 13150-226-01		
	PROJECT NAME: MARION COUNTY BASELINE LANDFILL		
	SUBJECT: CAPACITY ANALYSIS AND DESIGN LIFE CALCULATIONS		
	BY: M. Pollman	Date:	3/26/15
	CHECKED BY: B. Thomas	Date:	3/30/15

Objective:

1. Calculate the Starting Annual Waste Disposal Rate.
2. Calculate the annual BEBR Population Growth Rate Projections.
3. Calculate the waste to volume ratio (waste density) of waste disposed between surveys.
4. Calculate the volume remaining.
5. Calculate the remaining design life for Baseline Landfill.

Data:

	Capacity Analysis Timeperiod Starting Date =	3/27/2013		*Referred to as 2013*
	Capacity Analysis Timeperiod Ending Date =	2/6/2015		
V_T =	Total Volume Increase during Timeperiod =	313,221	CY	*(Reference 1)*
V_R =	Disposal Volume Remaining =	1,220,278	CY	*(Reference 1)*
W_T =	Total Tonnage Disposed during Timeperiod =	249,761	Tons	*(Reference 2)*

Calculations:

1. Calculate the starting annual disposal rate: $R_D = (W_T/T) \times (365 \text{ days/yr})$

Where:

R_D =	Starting Annual Waste Disposal Rate			
W_T =	Total Tonnage Disposed during Timeperiod	249,761	Tons	*(Reference 2)*
T =	Length of Timeperiod	681	Days	
R_D =	***249761 Tons / 681 days x (365 days/yr) =***	**134,000**	**Tons/yr**	**(Rounded)**

2. Estimate the future annual growth rate based on BEBR medium population projections. *(Reference 3)*
3. Calculate the waste to volume ratio (apparent waste density) based on the total tonnage disposed from the County's tonnage records and the total volume increase from AutoCAD comparison of the two surveys.

$\sigma_a = W_T/V_T$

Where:

σ_a =	Waste to Volume Ratio				
V_T =	Total Volume Increase during Timeperiod	313,221	CY	*(Reference 1)*	
W_T =	Total Tonnage Disposed during Timeperiod	249,761	Tons	*(Reference 3)*	
σ_a =	**249761 Tons / 313221 CY =**	**0.80**	***tcy***	***1,600***	***pcy***
σ =	***Waste Density used for Lifespan Calcs =**	**0.80**	***tcy***	***1,600***	***pcy***

*Previous Baseline Landfill lifespan calculations used 0.70 tcy or 52 pcf for the Class I density. Because of efficient operations and waste settlement, the waste density calculated is 0.85 tcy . With all other parameters being equal, a higher waste density results in a longer landfill lifespan

4. Calculate the tonnage projections and the anticipated lifespan for the Landfill.

Medium BEBR Population Projections
3:1 Slope with Peak Elevation=285'

(4) Disposal Volume Remaining (V_R) = 1,220,278 cy *(Reference 1)*

Year	(1) Annual Waste Disposal Rate (Tons/year)	(2) Annual Growth Rate *(Reference 3)* (%/yr)	(3) Waste to Volume Ratio (Density) (T/CY)	[(1) / (3)] Volume of Waste Landfilled CY	(5) = Previous Volume Remaining - [(1) / (3)] Annual Volume Remaining (CY)
2015	134,000				1,220,278
2016	136,478	1.8%	0.80	170,598	1,049,680
2017	139,003	1.8%	0.80	173,753	875,926
2018	141,574	1.8%	0.80	176,967	698,959
2019	144,192	1.8%	0.80	180,240	518,719
2020	146,859	1.8%	0.80	183,574	335,144
2021	149,186	1.6%	0.80	186,483	148,661
2022	151,550	1.6%	0.80	189,438	-40,776
2023	153,952	1.6%	0.80	192,440	-233,216
(6) Remaining Design Life (years from 2/6/2015)					**6.8**
(7) Expected Closure Date					**November 2021**

Note: Numbering in parenthesis based on discussion items in text.

References:

1. AutoCAD Civil 3D Volume Comparison of 3/27/13 Pickett survey to the 2/6/15 Pickett survey.
   AutoCAD Civil 3D Volume Comparison of 3/19/2015 Pickett survey to the top of waste surface developed previously. No changes to final cover design.
2. Tonnage Data from Marion County e-mails dated 3/26/2015 and 4/2/2015.
3. University of Florida Bureau of Economic and Business Research (BEBR), Florida Population Studies dated April 2014.

JONES EDMUNDS	PROJECT NUMBER:	13150-226-01		
	PROJECT NAME:	MARION COUNTY BASELINE LANDFILL		
	SUBJECT:	CAPACITY ANALYSIS AND DESIGN LIFE CALCULATIONS		
	BY:	M. Pollman	Date:	3/26/15
	CHECKED BY:	B. Thomas	Date:	3/30/15

Parameter Definitions:

Capacity Analysis Timeperiod Starting Date =

Date of the most recent survey used to calcualted the remaing design life. This survey was performed by Pickett & Associates, Inc. on February 6, 2015 and received on March 23, 2015.

Capacity Analysis Timeperiod Ending Date =

Date of the previous survey used to calcualted the remaing design life. This survey was performed by Pickett & Associates, Inc. on March 27, 2013.

Total Volume Increase during Timeperiod =

The volume of waste placed between surveys. Calculated using AutoCAD Civil 3D software by subtracting the 2013 topographic surface from the 2015 topographic surface. The value is shown in Reference 1, based on the gross fill value, because we want to account for the total waste filled. The cut value is likely due to waste settlement and not the removal of waste.

Disposal Volume Remaining =

The volume remaining in the Landfill is calculated using CADD software by subtracting the 2015 topographic survey surface from the top of waste surface (determined by subtracting 3-feet of soil from the final closure design surface) (Reference 1), which includes the east side slope expansion and the conceptual haul road. The final closure design was matched to the existing areas that are at final grade along the west and south landfill slopes, including the west access road. The additional waste value resulting from soil excavated as part of the side slope modification is added to the remaining volume (Reference 1). The resulting remaining volume is approximately 1.2 million cubic yards.

Total Tonnage Disposed during Timeperiod =

This is based on the tonnage data provided by Marion County for the waste that is landfilled (Reference 2).

Starting Annual Waste Disposal Rate = R_D =

The 2015 starting annual waste disposal rate in tons per year (tpy) is estimated based on the total waste tonnage landfilled from March 27, 2013 through February 6, 2015 (Reference 2), and converted to an annual average based on the length time period (in days) between surveys converted to an average value over 365 days per year.

Waste to Volume Ratio (Density) = $\sigma_{a=}$

The waste weight-to-volume ratio (density) is used in the design life calculation to convert the waste tonnage landfilled into a volume for determining the volume remaining for each year of active landfilling. The density is calculated by dividing the total tonnage of waste placed between topographic surveys by the total volume of airspace used between topographic surveys. The waste tonnage landfilled from March 27, 2013 through February 6, 2015 was provided by Marion County (Reference 2). The waste volume is calculated by subtracting the 2013 topographic surface from the 2015 topographic surface (with soil stockpiles removed) to determine a volume of airspace used (Reference 1). The results indicate that the density is higher than typical for landfilled waste, indicating efficient operations. Previous Baseline Landfill design life calculations used 0.70 tcy for the Class I waste density. This calculation used the measured waste denity of 0.80 tcy to show the variaion in remaining desing life by varying this parameter. With all other parameters being equal, a higher waste density results in a longer landfill lifespan.

Annual Growth Rate =

[illegible] increasing population. Using the population as the measure for the annual growth rate assumes that the average per capita waste production will remain constant. The annual growth rate calculations range from 1.6% to 1.8% (Attachment 2, Reference 3) based on the University of Florida Bureau of Economic and Business Research (BEBR), Projections of Florida Population by County dated April 2014.

Annual Volume Remaining =

The volume remaining for each year in the active life of the Landfill is calculated for each year until no landfill volume remains (as shown as zero or negative volume remaining). The annual landfill volume remaining is calculated based on the estimated tonnage of waste landfilled (increased annually using the annual growth rate) converted to a volume by multiplying it by the waste density. The annual volume landfilled is then subtracted from the volume remaining in the previous year of the landfill's active lifespan.

Remaining Design Life =

The remaining design life is the number of years calculated by iteratively subtracting the annual volume landfilled from the annual volume remaining until the volume remaining becomes zero or negative. If negative volume remains, the fraction of the year remaining is linearly interpolated.

Expected Closure Date

The closure date is determined based on the calculated design life starting from the survey date.

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767

Lawton Chiles, Governor

Carol M. Browner, Secretary

August 5, 1991

Honorable Glen Charles Fiorello, Chairman
Marion County Commission
601 Southeast 25th Avenue
Ocala, Florida 32671

OCD-SW-91-0337

Marion County - SW
Baseline Landfill
Revision of Amended Consent Order
OGC Case Number 87-0445

Dear Chairman Fiorello:

This is in response to a letter dated July 22, 1991 from Jones, Edmunds & Assocaites, Inc. on behalf of Marion County, which requested a revision to Paragraph 25 of the subject Consent Order. The request would continue to allow disposal of Class III waste only in the North Cell of Baseline Landfill to bring the landfill to final grade prior to installing the final cover.

The department is granting this request with the understanding that the additional Class III waste will not have any adverse impact on the closure design or the closure schedule for the North Cell. The closure schedule for the North Cell is stated in Paragraph 26 of the subject Consent Order and remains in force.

If you have any questions, please contact Mr. Richard B. Tedder, P.E. at 407/894-7555.

Sincerely,

A. Alexander, P.E.,
District Director

AA/rtw

cc: Earl Blankenship; Marion County Board of County Commissioners
Steven J. Laux, P.E.; Jones, Edmunds & Associates, Inc.

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Commissioners, 601 Southeast 25th Avenue, Ocala, Florida 32671. Marion County is a person within the meaning of Sections 403.031(5) and 403.703(3), Florida Statutes.

3. Respondent has owned a Class I landfill known as Baseline Landfill (the "Landfill") since 1977. The Baseline Landfill is located on Baseline Road (C-35) approximately one mile south of C-464 at Latitude $29^0 07'30"$ North and Longitude $82^0 03'45"$ West, in Sections 1 and 12, Township 16 South, Range 22 East in Marion County, Florida north of the Town of Belleview. On or about April 15, 1982 Respondent and Urban Waste Disposal, Inc., a New York corporation ("Urban") entered into a contract, which, as subsequently modified, related, "inter alia", to operation of the Landfill (the "Urban Contract"). The Urban Contract was terminated by Respondent in August of 1986. On March 12, 1987 Respondent regained operation of the Landfill. Urban operated the Landfill from on or about April 15, 1982 through March 12, 1987. Beginning on March 16, 1987, Western Waste Industries, Inc., a California corporation ("Western"), commenced operating the Landfill pursuant to a contract with Respondent. Western operated the Landfill from March 16, 1987 to December 15, 1987. On December 16, 1987 Marion County resumed operations with County staff.

4. On September 16, 1985, Respondent was issued a permit number SC42-094401 authorizing construction of new cells at and continued operations of the Landfill. Although that permit expired on August 1, 1990 due to changes in the Florida Administrative Code Chapter 17-7, effective December 10, 1985, it was required to be resubmitted to the Department, in accordance with Florida Administrative Code Rule

Well Number	Date Sampled	Parameter in Violation	Sample Result	Maximum Contaminant Level (MCL) F.A.C. Rule 17-3.402(1) (a)-(f)		
MW-2	6-17-86	Chlorobenzene	3.	n	"	n
	2-19-87	Chlorobenzene	2.73			
	6-17-86	1,1-dichloroethane	4.	n	M	n
	2-19-87	1,1-dichloroethane	7.78	n	"	n
	6-17-86	Ethylbenzene	6.	n	n	n
	2-19-87	Ethylbenzene	1.71	n	n	"
	6-17-86	1,2-dichloroethene	14.	n	"	n
	2-19-87	1,2-dichloroethene	13.7	"	n	n
	6-17-86	Dichlorobenzene	33.0	n	n	H
	2-19-87	Dichlorobenzene	40.4	"	n	H
MW-5	6-17-86	Chlorobenzene	4.	"	M	"
	2-19-87	Chlorobenzene	2.2	n	n	"
MO-6	6-17-86	Dichlorobenzene	2.	M	"	n
	2-19-87	Dichlorobenzene	3.3	M	n	"

In addition to the violations cited above, the total purgeables found in each well are as follows (in ug/l):

Well Number	Date Sampled	Total Purgeables
MW-2	6-17-86	100.
	2-19-87	95.04
MO-3	6-17-86	71.
	2-19-87	64.9
MW-5	6-17-86	51.
	2-19-87	41.
MO-6	6-17-86	298.
	2-19-87	10.18

7. The parties met on several occasions in an attempt to clarify the issues in this case and reach a solution to the problems

12. On May 9, 1988, prior to construction completion of Cell III-A, the Respondent filed a Closure Application No. SF42-149083 for the North Cell, also known as the Urban and the Methane Cell, in conformance with the Original Consent Order. An update of the plan was submitted on May 18, 1988. The Department requested additional information in a letter dated June 7, 1988 which was responded to on November 22, 1988. On December 13, 1988 a phased closure plan was provided to the Department in order to distribute closure cost over more than one fiscal year due to the Respondents budgetary constraints. The parties then met on December 16, 1988 to discuss phased closure. A letter dated January 6, 1989 was filed with the Department to outline the meeting and to request the approval of a modification to the closure application to permit phased closure. The Department responded on February 3, 1989 and stated that the phased closure approach was not in compliance with the Original Consent Order and that the Original Consent Order could be modified in a manner mutually acceptable to the Department and the Respondent. On or near December 20, 1989, proposed milestone deadlines for implementation of the phased closure was submitted to the Department for use in Consent Order modification, accompanied by Respondent Resolution No. 89-R-382 which was adopted by the Respondent on December 19, 1989 at the request of the Department. The resolution was followed up by a letter dated May 5, 1990 to reiterate closure time periods.

13. The closure plan for the North Cell was not implemented upon completion of Landfill Cell III-A as required by the Original Consent Order as the closure permit issuance was held in abeyance pending

by an addendum on December 12, 1989. Requests for additional information were issued by the Department on January 5, 1990 and March 3, 1990. A meeting between the Department, Respondent, and the Respondent's engineer was conducted on January 24, 1990 to discuss additional information requirements. Response to the listed requests for additional information were submitted by the Respondent on February 2, 1990 and March 27, 1990. On June 22, 1990 the Respondent issued a Notice of Award for the construction of the Landfill Cell III-B. DER issued a permit to construct Cell III-B (Permit No. SC42-173589) on August 20, 1990. Notice to Proceed was issued to the Contractor, effective September 4, 1990.

18. Respondent requested and was granted an extension of the Permit SC42-094401 on July 27, 1990 from August 1, 1990 to September 16, 1990.

19. The parties agree that the amendments to the Original Consent Order contained herein are appropriate.

THEREFORE, having reached a resolution of the matter, pursuant to Florida Administrative Code Rule 17-103.110(3), Respondent and the Department mutually agree and it is

ORDERED:

20. Respondent shall operate the landfill in accordance with Florida Administrative Code rule 17-701.050(6), and in accordance with the operational plan, as such plan is approved by the Department. This shall include, but not be limited to, the following: 1) application of proper daily, intermediate, and final cover; 2) proper sloping; 3) proper compaction; 4) proper sludge disposal; 5) adequate vegetation; 6)

the DER written approval.

25. Upon utilization of the new Landfill Cell III-B for disposal of Solid Waste, Respondent shall stop disposing of all waste in the North Cell.

26. Respondent shall begin construction of Phase I of the closure plan within ninety (90) days after receipt of the Department closure permit. Closure shall then progress as follows.

Item	No. of Days
a. Phase I closure construction complete	Within 120 days after commencement of Phase I closure construction
b. Phase II closure construction commencement	Within 90 days after Respondent completes Phase I construction
c. Phase II closure construction complete	Within 90 days after commencement of Phase II closure construction
d. Phase III closure construction commencement	Within 90 days after Respondent completes Phase II construction
e. Phase III closure construction complete	Within 90 days after commencement of Phase III closure construction

A final closure survey, record drawings, and final closure report shall be submitted to the Department within sixty (60) days after completion of the Phase III closure construction.

27. Within 60 days of the effective date of this Amended Consent Order, Respondent shall submit proof of financial responsibility for closure and long term care of the North Cell. Proof of financial responsibility for closure of the North Cell shall consist of an official report for the issuance of revenue bonds for closure of the

fifteen (15) days of receipt by Respondent.

30. Respondent shall implement corrective actions at the Davis Landfill and the Newton Landfill as set forth in the document entitled "Corrective Actions for Ground Water Contamination Cases", attached hereto as Exhibit A, within the time frames set forth therein.

31. Should future ground water monitoring data at the Canal Landfill indicate the ground water is contaminated and a contamination assessment is required, upon notification by the Department, Respondent shall implement corrective actions at the Canal Landfill as set forth in the document entitled "Corrective Actions for Ground Water Contamination Cases", attached hereto as Exhibit A, within the time frames set forth therein.

32. For and in consideration of the complete and timely performance by Respondent of the obligations agreed to in this Consent Order, the Department hereby waives its right to seek judicial imposition of civil penalties concerning the issues involved in this Consent Order.

33. With regard to any determination made by the Department regarding Respondent's responses to the Corrective Actions made pursuant to this Consent Order, Respondent may file a Petition for Formal or Informal Administrative Hearing Proceeding, if Respondent objects to the Department's determination, pursuant to Section 120.57, Florida Statutes, and Chapters 17-103 and 28-5, Florida Administrative Code. The petition must conform with the requirements of Florida Administrative Code Rule 28-5.201, and must be received by the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days after receipt of notice

the original Consent Order dated February 8, 1988.

The Consent Order 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 Regulation, Central Florida District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

Persons whose substantial interests are affected by this Consent Order have a right to petition for an administrative hearing on the Consent Order. The Petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 21 days of receipt of this notice. A copy of the Petition must also be mailed at the time of filing to the District Office named above at the address indicated. Failure to file a petition within the 21 days constitutes a waiver of any right such person has to an administrative hearing pursuant to Section 120.57, F.S..

The petition shall contain the following information: (a) The name, address, and telephone number of each petitioner; the Department's identification number for the Consent Order and the county in which the subject matter or activity is located; (b) A statement of how and when each petitioner received notice of the Consent Order; (c) A statement of how each petitioner's substantial interests are affected by the Consent Order; (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 Consent Order; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Consent Order; (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Consent Order.

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 subject Consent Order have the right to petition to become a party to the proceeding. The petition must conform to the requierments specified above and be filed (received) within 21 days of receipt 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,

operations, subject to Paragraph 33. above.

38. Entry of this Consent Order does not relieve Respondent of the need to comply with applicable federal, state, or local laws, regulations, or ordinances.

39. The terms and conditions set forth in this Consent Order may be enforced in a court of competent jurisdiction pursuant to Sections 120.69 and 403.121, Florida Statutes. Failure to comply with the terms of this Consent Order shall constitute a violation of Section 403.161(1)(b), Florida Statutes.

40. Respondent is fully aware that a violation of the terms of this Consent Order may subject Respondent to judicial imposition of damages, civil penalties of up to $10,000 per offense, and criminal penalties.

41. Respondent shall allow all authorized representatives of the Department access to the property at reasonable times for the purpose of determining compliance with the terms of this Consent Order and the rules of the Department.

42. The Department hereby expressly reserves the right to initiate appropriate legal action to prevent or prohibit future violations of applicable statutes or the rules promulgated thereunder not covered by the terms of this Consent Order.

43. No modification of the terms of this Consent Order shall be effective until reduced to writing and executed by both the Respondent and the Department.

44. All reports, plans, and data required by this Consent Order to be submitted to the Department should be sent to:

delay was or will be caused by circumstances beyond the reasonable control of the Respondent, and could not have been or can not be overcome by due diligence. Upon occurrence of the event, Respondent shall promptly notify the Department orally and shall, within seven (7) calendar days of oral notification to the Department, notify the Department in writing of the anticipated length and cause of delay, the measures taken or to be taken to prevent or minimize the delay, and the time table by which the Respondent intends to implement these measures. If the parties can agree that the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of the Respondent, the time for performance hereunder shall be extended for a period equal to the delay resulting from such circumstances. Such agreement shall be confirmed by letter from the Department accepting or if necessary modifying the extension request. If the parties cannot agree that the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of the Respondent, the Respondent shall have the burden of proving, in accordance with Paragraph 33. above, that the delay was or will be caused by circumstances beyond the reasonable control of the Respondent, and could not have been or can not be overcome by due diligence. The Respondent shall adopt all reasonable measures necessary to avoid or minimize delay. Failure of the Respondent to comply with the notice requirements of this paragraph shall constitute a waiver of the Respondent's right to request an extension of the requirements of this Consent Order. Increased costs of performance of the terms of this Consent Order or changed economic circumstances shall not be considered circumstances

49. In the event of any conflict between and among the terms and conditions of the various permits, this Amended Consent Order, and any amendments thereto, the latest document controls.

50. If all of the requirements of this Amended Consent Order have not been fully satisfied, Respondent shall not sell or convey the above-described property without, at least 14 days prior to such sale or conveyance, (1) notifing the Department of such sale of conveyance, and (2) providing a copy of this Consent Order with all attachments to the new owner.

51. The provisions of this Consent Order shall apply to and be binding upon the parties, their officers, their directors, agents, servants, employees, successors, and assigns and all persons, firms and corporations acting under, through or for them and upon those persons, firms and corportaitons in active concert or participation with them.

(6) Describe geologic and hydrogeologic characteristics of the site which influence migration and transport of contaminants; and

(7) Provide a site history including description of facility operations, as applicable.

B. The CAP shall specify tasks, which are necessary to achieve the objectives described in subparagraph 1.A above. The CAP shall include a reasonable time schedule for completing each task. The tasks may include, but are not limited to the following:

(1) Use of piezometers or wells to determine the horizontal and vertical directions of the ground water flow;

(2) Use of electromagnetic conductivity (EM) and other geophysical methods or vapor analyzers to trace extent of ground water contamination;

(3) Use of fracture trace analysis to discover linear zones in which discrete flow could take place;

(4) Use of well points or monitoring wells to sample ground water in affected areas and to determine the vertical and horizontal extent of the ground water plume;

(5) Sampling of public and private wells;

(6) Sampling of surface water and sediments;

(7) Sampling of air for airborne contaminants;

(8) Analysis of soils and drum and tank residues for hazardous waste determination and contaminant characterization.

(9) Use of geophysical equipment such as vapor analyzers, magnetometers, ground penetrating radar, or metal detectors to detect buried objects;

(8) Details of any other assessment methodology proposed for the site;

(9) A description of any survey to identify and sample public or private wells which are or may be affected by the contaminant plume;

(10) A description of the regional geology and hydrogeology of the area surrounding the site;

(11) A description of site features (both natural and man-made) pertinent to the assessment;

(12) A description of methods and equipment to be used to determine the site specific geology and hydrogeology; and

(13) Details. including disposal or treatment methods, of any immediate remedial actions proposed for the site such as product recovery, soil removal or treatment.

D. The CAP shall contain as a separate document a Quality Assurance Project Plan ("QAPP"), which shall apply to all sampling and analysis required by this Consent Order. The QAPP shall be prepared in accordance with the requirements set forth in the document titled "DER Guidelines for Preparing Quality Assurance Plans, DER-QA-001/90, August 20. 1990." A copy of the document is available upon request from the Department. A QAPP is required for all persons collecting or analyzing samples. The Department reserves the right to reject all results submitted by Respondent prior to QAPP approval, or those results which are not obtained in accordance with the Department approved QAPP.

A. Draft specific modifications to the CAP and notify Respondent in writing that the Department's modification shall be incorporated in the CAP and/or QAPP; or

B. Notify Respondent in writing that Respondent has failed to comply with paragraph four above, in which case the Department may do any or all of the following: take legal action to enforce compliance with the Order, file suit to recover damages and civil penalties, or complete the corrective actions outlined herein and recover the costs of completion from Respondent.

6. Once a CAP has been approved by the Department. it shall become effective and made a part of this Order. and shall be implemented within ten (10) days of the Department's written notification to Respondent that the CAP has been approved. The CAP shall incorporate all required modifications to the CAP identified by the Department. Within ten (10) working days of completion of the CAP tasks, Respondent shall provide written notice to the Department that the CAP tasks have been completed.

7. Within forty-five (45) days of completion of the tasks in the CAP, Respondent shall submit a written Contamination Assessment Report ("CAR") to the Department. The CAR shall:

A. Summarize all tasks which were implemented pursuant to the CAP; and

B. Specify results and conclusions regarding the Contamination Assessment objectives outlined in subparagraph 1.A.

8. The Department shall review the CAR and determine whether it has adequately met the objectives specified in subparagraph 1.A.

13, or submit the Remedial Action Plan (RAP) as set forth in paragraph 18.

10. After completion and Department approval of the CAR. the Respondent shall prepare and submit to the Department a Risk Assessment/Justification (RAJ) if the Department requires the task, or if the Respondent wishes to develop less stringent SRLs other than those determined by the Department, or if the Respondent intends to justify a no-action proposal for the site. The RAJ which includes a risk assessment and a detailed justification of any alternative SRLs or no-action proposal shall be submitted within one hundred twenty (120) days from receipt of the Department's written approval of the CAR and determination of the SRLs for the site, or within one hundred twenty (120) days of the Department's written approval of the CAR and notice that a RAJ is required, or within one hundred twenty (120) days of the Department's written approval of the CAR. Unless otherwise approved by the Department, the subject document shall address the following task elements, divided into the following five major headings:

A. Exposure Assessment - The purpose of the Exposure Assessment is to identify routes by which receptors may be exposed to contaminants and to determine contaminant levels to which receptors may be exposed. The Exposure Assessment should:

(1) Identify the contaminants found at the site and their concentrations as well as their extent and locations;

(2) Identify possible transport pathways;

(3) Identify potential exposure routes;

Contaminant Levels (RMCLs), Maximum Contaminant Levels. Average Daily Intake values (ADIs), Unit Cancer Risk values (UCRs). organoleptic threshold levels, and other relevant criteria as applicable.

(2) Non-potable domestic water usage exposure route - develop criteria for dermal contact, inhalation of vapors and mists, ingestion of food crops irrigated with such water, lawn watering, ingestion by pets and livestock, and other related exposure.

(3) Soil exposure route - develop criteria for ingestion. dermal contact. inhalation. ingestion by humans or animals of food crops grown in contaminated soils.

(4) Non-potable surface water exposure - develop criteria for prevention of adverse effects on human health (e.g. dermal contact • effects on humans utilizing the resource for recreational purposes) or the environment (e.g. toxic effects of the contaminants on aquatic or marine biota, bio-accumulative effects in the food chain, other adverse effects that may affect the designated use of the resource as well as the associated biota).

(5) Air exposure route - develop criteria for exposure to the contaminants in their unaffected state.

C. Risk Characterization - The purpose of the Risk Characterization is to utilize the results of the Exposure Assessment and the Toxicity Assessment to characterize cumulative risks to the affected population and the environment from contaminants found at the site. Based on contaminant levels presently found at the site, a risk and impact evaluation will be performed which considers, but is not limited to:

will migrate to and substantially affect a public or private source of potable water;

(2) Potential for further degradation of the affected aquifer or degradation of other connected aquifers;

(3) The technical feasibility of achieving the SRLs based on a review of reasonably available technology;

(4) Individual site characteristics, including natural rehabilitative processes; and

(5) The results of the risk assessment.

Applicable contaminant transport models must be employed to document that human health and environment risks from alternative and less stringent SRLs are acceptable.

11. The Department shall review the Risk Assessment/Justification document and determine whether it has adequately addressed the risk assessment task elements. The Department shall review the justification section and determine whether the Department approves or disapproves the alternative SRLs or the no-action proposal.

12. In the event that additional information is necessary to evaluate any portion of the Risk Assessment/Justification document, the Department shall make a written request and Respondent shall provide all requested information within 30 days of receipt of said request. If the Department does not approve the no-action proposal or the alternative SRLs, the Respondent shall use the SRLs as determined by the Department. If the Department and Respondent agree to the remediation levels, either the SRLs determined by the Department or the alternative SRLs, the Respondent shall implement

(4) operation and maintenance costs;

(5) operation and maintenance requirements;

(6) reliability;

(7) feasibility;

(8) time required to achieve cleanup; and

(9) potential legal barriers to implementation of any of the alternatives;

(D) Identify the need for and conduct pilot tests or bench tests to evaluate alternatives, if necessary;

(E) Select the most appropriate remedial alternative;

(F) Develop soil cleanup criteria such that the contaminated soils will not produce a leachate which contains contaminants in excess of the SRLs or alternative SRLs (if approved).

14. Within forty-five (45) days of completing the FS, Respondent shall submit the FS Report to the Department. The FS Report shall:

A. Summarize all FS task results; and

B. Propose a conceptual remedial action plan based on the selection process carried out in the FS.

15. The Department shall review the FS Report for adequacy and shall determine whether the Department agrees with the proposed remedial action. In the event that additional information is necessary to evaluate the FS Report, the Department shall make a written request and Respondent shall provide all requested information within thirty (30) days from receipt of said request.

alternative based on the following criteria:

a. long and short terra environmental impacts;

b. implementability, which may include, but not be limited to. ease of construction, site access, and necessity for permits;

c. operation and maintenance requirements;

d. reliability;

e. feasibility; and

f. costs.

(3) Soil cleanup criteria such that the contaminated soils will not produce a leachate which contains contaminants in excess of State Water Quality Standards or minimum criteria established in Florida Administrative Code Chapter 17-3. Subparagraph A requirements can be omitted if a FS was required and approved by the Department.

B. Design and construction details and specifications for the remedial alternative selected;

C. Operational details of the remedial action including the disposition of any effluent, expected contaminant concentrations in the effluent, an effluent sampling schedule if treated ground water is being discharged to ground water or to surface waters, and the expected concentrations and quantities of any contaminants discharged into the air as a result of remedial action;

D. A separate QAPP document;

E. Details of the treatment or disposition of any contaminated soils or sediments;

the RAP, the Department, at its option, may choose to either:

A. Draft specific modifications to the RAP and notify the Respondent in writing that the Department's modifications shall be incorporated in the RAP; or

B. Notify the Respondent that Respondent has failed to comply with the paragraph 21 above, in which case the Department may do any or all of the following: take legal action to enforce compliance with the Order; file suit to recover damages and civil penalties; or complete the corrective actions outlined herein and recover the costs of completion from Respondent.

23. Once a RAP has been approved by the Department, it shall become effective and made a part of this Consent Order and shall be implemented within thirty (30) days from receipt of the Department's notification to the Respondent that the RAP has been approved. The RAP shall incorporate all required modifications to the RAP identified by the Department.

24. Following termination of remedial action (cleanup of the contaminated area to the SRLs or the approved alternative SRLs), designated monitoring wells shall be sampled on a schedule determined by the Department.

25. Following completion of the remedial action and post-remedial action monitoring, the Respondent shall submit a Site Rehabilitation Completion Report (SRCR) to the Department for approval. The SRCR shall be signed and sealed by a registered Professional Engineer in accordance with Chapter 471, F.S., unless "no further action" or "monitoring-only" was proposed and was approved by the Department. The SRCR shall contain a demonstration,

Respondent and the Department as soon as the data are available.

31. The Respondent Is required to comply with all applicable local, state and federal regulations and to obtain any necessary approvals from local, state and federal authorities in carrying out these corrective actions.

32. If any event occurs which causes delay or the reasonable likelihood of delay in the achievement of the requirements of these Corrective Actions, Respondent shall have the burden of proving that the delay was or will be caused by circumstances beyond the reasonable control of Respondent, and could not have been or can not be overcome by due diligence. Upon occurrence of the event Respondent shall promptly notify the Department orally and shall, within seven (7) calendar days, notify the Department in writing of the anticipated length and cause of delay, the measures taken or to be taken to prevent or minimize the delay, and the time table by which Respondent intends to implement these measures. If the parties can agree that the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of Respondent, the time for performance hereunder shall be extended for a period equal to the delay resulting from such circumstances. Such agreement shall be confirmed by letter from the Department accepting or if necessary modifying the extension request. Respondent shall adopt all reasonable measures necessary to avoid or minimize delay. Failure of Respondent to comply with the notice requirements of this paragraph shall constitute a waiver of Respondent's right to request an extension of time to complete the requirements of these Corrective Actions. Increased costs of performance of any of the