



FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

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

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

JONATHAN P. STEVERSON
SECRETARY

May 26, 2015

E-Mail

tom@tmimscorp.com

In the Matter of an
Application for Permit by:
Mr. Thomas Mims
439 S. Florida Ave, Suite 202
Lakeland, Florida 33801

Polk County
WACS # 102198
Innovation Environmental Park
Class I Landfill

Attention: Mr. Mims

DEP File No: 331364-001-SO and
331364-002-SC

This is the Department's Intent to Issue Permit No. 331364-001-SO and 331364-002-SC. Enclosed with the Intent to Issue is a Draft Permit for the project and file number noted above. Please contact the Tallahassee office of the Department's Solid Waste Program at 850-245-8707 if you have any questions or need further information.

INTENT TO ISSUE - PERMIT

The Department of Environmental Protection gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated below.

The applicant, Mr. Thomas Mims, Director, Innovation Environmental, Inc. applied on December 16, 2014 to the Department of Environmental Protection, for a permit to construct and operate a facility located approximately 3 miles south of the city of Mulberry, CR 640, about 1.7 miles west of the intersection with SR 37, Polk County, Florida

The Department has permitting jurisdiction under Section 403.707(1), Florida Statutes (F.S.) and Chapters 62-4 and 62-701, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that a construction permit is required.

Pursuant to Section 403.815, F.S., you are required to publish at your own expense the enclosed Notice of Proposed Agency Action. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the

county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the following address or telephone number. You must provide proof of publication to the Department at the following address as soon as practical after publication. This address and phone number are: Department of Environmental Protection, Solid Waste Section, 2600 Blair Stone Road, Mail Station 4565, Tallahassee, Florida 32317, phone: 850-245-8707.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Petitions by the applicant or any of the parties listed below must be filed within 14 days of receipt of this written notice. Petitions filed by other persons must be filed within 14 days of publication of the notice or receipt of the written notice, whichever occurs first. Under Section 120.60(3), F.A.C., 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



Tim Bahr, P.G., Program Administrator
Permitting and 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.



5-26-15

Clerk

Date

Mr. Thomas Mims

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May 26, 2015

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE – PERMIT and all copies were sent before the close of business on May 26, 2015 to the listed persons.



Clerk

Enclosures:

1. Text for “Notice of Proposed Agency Action”
2. Draft Permit No. 331364-001-SO and 331364-002-SC

Copies furnished to:

Polk County Elected Officials Notification

Tyler M. Townsley ttownsley@sprynet.com

Kyle Jensen khjensen87@gmail.com

Thomas Sprehe (KCI) Thomas.sprehe@kci.com

Steve Morgan

Richard Tedder, P.E.

Chad Stevens

Benjamin Melnick

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PROPOSED AGENCY ACTION

The Department of Environmental Protection gives Notice of its Intent to issue a solid waste construction permit for the Innovation Environmental Park Class I Landfill to Mr. Thomas Mims, Director, Innovation Environmental, Inc. The permit is to construct and operate the Innovation Environmental Park Class I Landfill. The Department has assigned File Number 331364-001-SO and 331364-002-SC to this project.

The Department's file on this matter is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Department of Environmental Protection, Solid Waste Section, 2600 Blair Stone road, Tallahassee, Florida 32317, phone 850-245-8707. Documents are also available at the following link: http://appprod.dep.state.fl.us/WWW_WACS/REPORTS/SW_Facility_Docs.asp?wacsid=102198

A person whose substantial interests are affected by the above proposed agency action may petition for an administrative determination (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) in the Department's Office of General Counsel, Marjory Stoneman Douglas Building, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within 14 days of publication of this notice or receipt of the written notice, whichever occurs first. 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 of the Florida Statutes, 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 of the Florida Administrative Code.

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 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 facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f.) A statement of which 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 of the Florida Administrative Code.

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 as an alternative to filing a petition for an administrative determination.



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

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

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

JONATHAN P. STEVERSON
SECRETARY

Permit Issued to:

Innovation Environmental, Inc.
439 S. Florida Ave, Suite 202
Lakeland, Florida 33801
(863) 683-9297

WACS Facility ID No.: 102198
Facility Name: Innovation Environmental Park (IEP), Class I Landfill
Polk County, Florida

Contact Person:
Thomas Mims, Director
439 S. Florida Ave, Suite 202
Lakeland, Florida 33801
tom@tmimscorp.com
(863) 683-9297

Solid Waste Construction/Operation Permit – Class I Landfill
Operation Permit No.: 331364-001-SO
Construction Permit No.: 331364-002-SC
Permit Modification No.: N/A, new
Replaces Permit No.: N/A, new

Permit Issued: [date]

Operation Permit No.: 331364-001-SO
Permit Renewal Application Due Date: [date 61 days prior to expiration]
Permit Expires: XX/XX/2035

Construction Permit No.: 331364-002-SC
Permit Renewal Application Due Date: [date 61 days prior to expiration]
Permit Expires: XX/XX/2020

Permitting Authority
Florida Department of Environmental Protection
Permitting and Compliance Assistance Program
2600 Blair Stone Road, MS 4565
Tallahassee, Florida 32399-2400
850-245-8707 (voice)
850-245-8803 (fax)

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The permittee is hereby authorized to construct and 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 construction and operation permit is issued under the provisions of Chapter 403, Florida Statutes, (F.S.), and Chapters 62-4 and 62-701, Florida Administrative Code, (F.A.C.).

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 of the Water Management District.

B. Facility Location

The facility is located approximately 3 miles south of the city of Mulberry, CR 640, about 1.7 miles west of the intersection with SR 37. Section 34, Township 30, Range 23, Polk County, Florida. The coordinates to the approximate center of the facility disposal area is latitude 27°49' 36" N and longitude 82° 00', 00" W.

C. Facility Description

The constructed facility will consist of a 37 acre double lined disposal area within a 527 acre area designated for landfill development. The total parcel area under ownership of the permittee contiguous to the landfill boundary is approximately 1,773 acres. An Environmental Resource Permit (ERP) application which covers the landfill development area was submitted concurrently with the Solid Waste permit application. The ERP permit number assigned to the project is ERP_331364. Modifications to the ERP permit that affect landfill construction and operation will require modifications to this permit. The main entrance will be from County Road 640 approximately 1.5 miles north of the disposal area. Other related structures consist of a scale house, administration office, maintenance building, and a covered fueling station. Two additional gated site access points are provided along State Road 37 to the north and south of Jamison Road. A security fence is also proposed to prevent unauthorized access to the site. The facility is authorized to receive up to an average daily load of 1,500 tons per day under normal operating conditions.

Bottom Liner (top to bottom)	<ul style="list-style-type: none"> • 2-foot thick protective layer consisting of 1 foot of protective soil or de-wired tire chips four square inches or smaller and 1 foot of drainage sand with a minimum hydraulic conductivity of 1×10^{-3} cm/sec; • Leachate collection system (LCS) tri-planar geocomposite drainage layer; • 60-mil primary HDPE textured (both sides) geomembrane liner; • Leachate detection system (LDS) tri-planar geocomposite drainage layer; • 60-mil HDPE secondary textured (both sides) geomembrane liner; • Geosynthetic clay liner (GCL); • Compacted subgrade per specifications.
Leachate Impoundments	516,000 gallon holding tank with secondary containment wall.
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 – Geotechnical Considerations

APPENDIX 4 – Water Quality Monitoring Plan

E. Attachments for Informational Purposes Only [optional]

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.

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., and Rule 62-4.120, 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. Air Permit Requirements.
 - a. The landfill owner or operator is not required to obtain an air construction permit, unless landfill construction or any modification is subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. A landfill for which construction or modification is subject to PSD requirements must make application to the Bureau of Air Regulation, Department of Environmental Protection, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, for an air construction permit and must obtain such permit prior to beginning any construction or modification.
 - b. The landfill owner or operator is not required to obtain an air operating permit, unless the landfill is required to obtain a Title V Air Operating Permit (Title V Permit) pursuant to Section 403.0872, F.S. A landfill is required to obtain a Title V Permit if the landfill (or the total facility, if the landfill is contiguous to or part of a larger facility) has the potential to emit 10 tons per year (TPY) or more of any hazardous air pollutant, 25 TPY or more of any combination of hazardous air pollutants, or 100 TPY or more of any other regulated air pollutant. A landfill is

also required to obtain a Title V Permit if the maximum design capacity, as defined in 40 CFR 60, Subpart WWW, is equal to or greater than 2.5 million Megagrams or 2.5 million cubic meters. Title V Permits must be applied for in accordance with the timing and content requirements of Rule 62-204.800, F.A.C., and Chapter 62-213, F.A.C. Title V applications shall be submitted to the DEP's Division of Air Resource Management, Office of Permitting and Compliance at 2600 Blair Stone Road, Mail Station 5505, Tallahassee, FL 32399-2400, (850) 717-9000.

- c. The Permittee is required to comply with the requirements of 40 CFR 60, Subpart WWW and CC as adopted by reference in Rule 62-204.800, F.A.C. The Permittee may have to submit to the Division of Air Resource Management, Department of Environmental Protection, Mail Station 5500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 6-.757(a)(3) and (b).
6. Operation Permit No.: 331364-001-SO Submittals Required Every Five Years. No later than **XX/XX/2020, XX/XX/2025, and XX/XX/2030** 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.
7. Permit Fee Payments. The total permit fee required for this Operations permit is \$40,000 for a 20-year permit. The applicant has elected to pay this fee in installments in accordance with Rule 62-701.315(13), F.A.C., and submitted a fee of \$10,000 with this application. No later than **XX/XX/2020, XX/XX/2025, and XX/XX/2030** the permittee shall submit to the Department an installment payment of this fee in the amount of \$10,000. This fee is due the State regardless of whether the permittee closes the facility, surrenders the permit, has the permit revoked, or transfers the permit before it expires. If the permittee elects to transfer the permit, it must either pay the entirety of the fee due before submitting the application for transfer, or it must include with the transfer application a signed agreement from the proposed transferee to accept responsibility for the remainder of the permit fee due.

B. Construction Requirements

1. Construction authorized. This permit authorizes the construction of 37 acres of lined landfill referred to as Phase I cells 1 through 4. Each cell is proposed to be constructed as an individual phase of construction. Prior to initiating bottom liner construction the site shall be prepared to achieve base grades specified in the application documents. This preparation includes dewatering of the site to facilitate the placement of suitable fill material in the dry condition. See specific condition B.2. below regarding construction and long term dewatering.
2. Dewatering. This project will involve the removal of unsuitable soils and replacement with fill materials as specified in the Geotechnical report (APPENDIX 2 item #3d). Due to the required excavation depth and the presence of an elevated groundwater level, both construction and long term dewatering is proposed.
 - a. Construction dewatering and establishment of base grades.
 - i. Piezometers shall be installed and groundwater elevations recorded prior to excavation to establish the piezometric surface in relation to the proposed bottom of excavation.
 - ii. The planed dewatering method shall be suitable to provide a stable dry excavation ready to receive select engineered fill as specified in the Geotechnical Report.
 - b. Long term dewatering.
 - i. The approved application indicates a perimeter groundwater swale will be provided to maintain the groundwater level post construction to be no greater than elevation 141 feet NGVD assuring a minimum two foot separation below the bottom liner. Following construction of the groundwater swale, piezometers shall be installed and maintained to verify the swale is functioning as designed. Once installed, a modification to the Operation permit is required to update Appendix 4 to include these piezometers as part of the Water Quality Monitoring Plan.
 - ii. The liner system shall be installed only after verification that the groundwater swale is functioning as designed. If evaluation reveals the system does not meet design considerations for liner placement, the applicant must notify the Department and provide an alternate plan for dewatering to determine if a permit modification is required.
3. General Construction Requirements. All construction shall be done in accordance with the approved design, drawings, CQA plan, and specifications. 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.

4. Subgrade Below The Liner. The existing spoil material generated by previous phosphate mining shall be removed and replaced with engineered fill installed in lifts as specified in the Geotechnical report (APPENDIX 2 item #3d). The subgrade shall be tested in accordance with the requirements of APPENDIX 3 and shall provide a firm non-yielding base suitable for liner installation and the applied loads expected from build-out of the landfill. Prior to placement of the engineered fill, the exposed native material shall be inspected for areas of non-conforming soils potentially insufficient to provide adequate bearing capacity. After identification, areas of concern shall be remediated.
5. Certification of Construction Completion. Upon completion of construction of each phase of liner construction, 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 done in substantial conformance with the approved construction plans except where minor deviations were necessary. All deviations shall be described in detail and the reasons therefore enumerated. The following documents shall be submitted along with the Certification:
 - a. The final report and record drawings showing that the liner system has been installed in substantial conformance with the plans and specifications for the liner system. The record drawings must include the results of the surveys of the liner, base grade and collection pipe slopes.
 - b. The final report showing the results of the geomembrane liner leak location survey if applicable.
 - c. Results of testing of geosynthetic and soil components of the liner system.
6. Construction Quality Assurance. The Construction Quality Assurance (CQA) Plan submitted with the permit application shall be followed for preparing the subgrade and installing and testing the liner system and related components. The CQA engineer or the engineer's designee shall be on-site at all times during construction of the liner system to monitor the construction activities including preparation of the sub-base, placement of the liner components and leachate collection system, and placement of the drainage and protective layer over the primary liner.
7. Approval of Certification. The permittee shall not begin using the newly constructed 37 acre disposal area or portions thereof at the facility until one of the following has occurred: (1) the Department has stated in writing that it has no objection to the certification of construction completion; or (2) at least 30 days have passed since the certification was submitted and the Department has not responded in writing to the certification.

C. Operation Requirements

1. General Operating Requirements. The Permittee shall operate the landfill in accordance with the approved Operation Plan as listed in Appendix 2, item 5d. 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 administration office 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) Agricultural.
 - 4) Sludge (domestic, industrial).
 - 5) Industrial.
 - b) Other Wastes Specifically Authorized:
 - 1) Biological Wastes. 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 and Exhibit A of the Approved Operation Plan.
 - 3) Contaminated Soil. Contaminated soil acceptance is conducted on a case-by-case basis in accordance with Rule 62-701.520(4), 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 62-711, 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 elevation for the facility shall not exceed 289 feet NGVD as shown on the plan view provided on the Final Grading Plan sheet 7 of 26 and Landfill cross sections for section A-A' , B-B' provided on sheet 12 of 26. (Approved final Landfill Construction Drawings APPENDIX 2, Item #6c).

7. Initial Waste Placement. The first layer of waste placed above the liner and leachate collection system shall be a minimum of four feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system.

8. 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.
- 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.
9. 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.
10. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Contingency Plan. Notification shall be made to the Solid Waste Section of DEP's Southwest District Office at (813) 470-5700.
11. 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 Section 2, Part E
12. 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, so that leachate is not discharged from the system except as provided for in the 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 after construction and at least once every five years thereafter. A summary of the results shall be submitted 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.
13. 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>.

14. 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 **September 1st**. 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 Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

15. Hazardous Waste. 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 facility Operation Plan.

16. 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 described as extending vertically to the base of the surficial aquifer with the horizontal boundary extending 100 feet from the limits of the landfill disposal areas or to the property boundary whichever is less. 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 4.

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. 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.
 - a. The general locations of ambient monitoring points are located at onsite structures specified on the Overall Site Plan, sheet 10 of the ERP Application Drawings (APPENDIX 2, Item #3q). Their locations are shown in more detail on Site Plan CR 640 Entrance Sheet 11 and Site Plan Maintenance Sheet 13 of the ERP Application Drawings (APPENDIX 2, Item #3q).
 - b. Locations of soil monitoring probes are specified on the Final Grading Plan, sheet 7 of 26 (APPENDIX 2, Item #6c).
 - c. Locations of gas extraction or venting wells are specified on the Landfill Gas Vent Layout Plan, sheet 8 of 26 (APPENDIX 2, Item #6c).
2. Certification of Construction Completion. After construction 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.
3. Operational Requirements. Gas controls shall be operated and maintained so that they function as designed.
4. 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. The gas monitoring results shall be reported as a percent of the lower explosive limit (LEL), calibrated to methane. The report shall be submitted to the Department under separate cover no later than 15 days after the end of the period in which the monitoring occurred.
5. 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.

6. 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 may not receive waste for disposal or storage in any disposal unit for which financial assurance has not been approved. Proof that the financial mechanisms are established and funded in accordance with Rule 62-701.630, F.A.C. shall be submitted to the Department at least sixty (60) days prior to the planned acceptance of solid waste in any disposal unit. When established, 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 - Solid Waste Section
2600 Blair Stone Road, MS 4548
Tallahassee, Florida 32399-2400

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) 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.

H. Long Term Care Requirements

Not applicable. Currently no disposal units are closed and in LTC.

Executed in Leon County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Tim Bahr, P.G., 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 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 the Innovation Environmental Park Class I Landfill Construction and Operation Permit consist of the following:

1. Initial permit renewal application prepared by KCI Technologies, Inc. for Innovation Environmental Inc. dated December 12, 2014 and received by the Tallahassee Solid Waste Section on December 16, 2014. Consisting of three bound volumes.

Volume 1 of 3

- a) Cover Letter:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215039.1>
- b) Table of Contents:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215040.1>
- c) Application:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215041.1>
- d) Engineering Report:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215043.1>

Volume 2 of 3

- e) Attachment #2 - Geotechnical Report:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215044.1>

Volume 3 of 3

- f) Attachment #3 - Hydrogeological Report
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215045.1>
- g) Attachment #4 - Operation Plan:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215046.1>

- h) Attachment #5 - Exhibits for Part D (9) & (14):
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215047.1>
 - i) Attachment #6 – Landfill Construction Drawings:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215048.1>
 - j) Attachment #7 - HELP Model:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215051.1>
 - k) Attachment #8 - Property Ownership Information:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215067.1>
 - l) Attachment #9 - Technical Specifications:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215068.1>
 - m) Attachment #10 - CQA Plan:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215069.1>
 - n) Attachment #11 - Report for Part E (4):
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215072.1>
 - o) Attachment #12 - Closure and Long-Term Care Cost Estimates:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215091.1>
 - p) Attachment #13 - Supporting Calculations:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.215092.1>
2. FDEP First Request for Additional Information dated January 12, 2015.
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.216208.1>

3. Response to FDEP RAI#1 prepared by KCI Technologies, Inc. for Innovation Environmental Inc. Revision date February 10, 2015 and received by the Tallahassee Solid Waste Section on February 18, 2015. Consisting of four bound volumes and an ERP application prepared by Carter Engineering under separate cover.

Volume 1 of 4

- a) Cover Letter:
<http://depdms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219603.1>
- b) Application:
<http://depdms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219604.1>
- c) Engineering Report:
<http://depdms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219605.1>

Volume 2 of 4

- d) Attachment #2 - Geotechnical Report:
<http://depdms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219617.1>

Volume 3 of 4

- e) Attachment #3 - Hydrogeological Report:
<http://depdms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219618.1>
- f) Attachment #4 - Operation Plan:
<http://depdms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219631.1>
- g) Attachment #5 - Exhibits for Part D (9) & (14):
<http://depdms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219632.1>

Volume 4 of 4

- h) Attachment #6 – Landfill Construction Drawings:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219634.1>
- i) Attachment #7 - HELP Model:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219658.1>
- j) Attachment #8 - Property Ownership Information:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219659.1>
- k) Attachment #9 - Technical Specifications:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219697.1>
- l) Attachment #10 - CQA Plan:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219699.1>
- m) Attachment #11 - Report for Part E (4):
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219700.1>
- n) Attachment #12 - Closure and Long-Term Care Cost Estimates:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219701.1>
- o) Attachment #13 - Supporting Calculations:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219702.1>

ERP Application (submitted under separate cover)

- p) Attachment #1 – ERP Application Full Package:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219607.1>
- q) Attachment #1 – ERP Application Drawings:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.219606.1>

4. FDEP Second Request for Additional Information dated March 19, 2015.
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.223481.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.223481.1])
5. Response to FDEP RAI#2 prepared by KCI Technologies, Inc. for Innovation Environmental Inc. dated March 25, 2015 and received by the Tallahassee Solid Waste Section on March 26, 2015.
 - a) Cover Letter:
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.223473.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.223473.1])
 - b) Engineering Report:
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.223474.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.223474.1])
 - c) Attachment #3 - Hydrogeological Report Revised February 10,2015, March 25, 2015:
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.223475.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.223475.1])
 - d) Attachment #4 – Approved Operation Plan signed and sealed march 25, 2015:
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.223476.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.223476.1])
 - e) Attachment #6 – Landfill Construction Drawings revision date March 25,2015:
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.223478.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.223478.1])
 - f) Attachment #13 - Supporting Calculations Containing signed and sealed HDPE Pipe Crushing Calculations revision date March 25,2015:
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.223477.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.223477.1])
6. Supplemental information provided by KCI Technologies, Inc. for Innovation Environmental Inc. dated April 10, 2015 and received by the Tallahassee Solid Waste Section on April 13, 2015.
 - a) Cover Letter:
[http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&\[guid=8.225326.1\]](http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&[guid=8.225326.1])

- b) HDPE Pipe Crushing Calculations revision date April 10,2015:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.225328.1>
 - c) Landfill Construction Drawings revision date April 10, 2015:
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.225327.1>
7. Supplemental Geotechnical Investigation Memorandum provided by KCI Technologies, Inc. for Innovation Environmental Inc. dated May 07, 2015 and received by the Tallahassee Solid Waste Section on May 11, 2015 by e-mail.
<http://depedms.dep.state.fl.us/Oculus/servlet/shell?command=getEntity&guid=8.229620.1>

APPENDIX 3

Geotechnical Considerations

The proposed landfill site is currently covered with spoils generated by an earlier phosphate mining operation. The spoils will be removed and replaced with an engineered fill. Prior to preparation of the sub-grade the permittee will conduct a characterization and verification program as follows:

- A. In addition to the requirements specified on page 02055-11 of the permit application (dated 2.10.2015), the permittee will perform no less than two direct shear tests on the engineered fill material per proposed landfill cell in order to fully characterize the c and ϕ of the engineered fill, for a total of eight direct shear tests over four cells.
- B. The permittee will advance at least ten additional soil borings at the locations shown on drawing 3A (APPENDIX 2, Item #7, page 3). Each borehole will extend to a depth of at least 30 feet into the native material currently underlying the spoil. At the permittee's option, the borings may be advanced after spoil removal (directly into the underlying native material), or after emplacement of the engineered fill (through the emplaced engineered fill and at least 30 feet into the native material). The following tasks will be performed in association with each additional soil boring:
 1. Soil borings will be advanced to a depth of 30' into the native material and below the base of the engineered fill. Blow counts will be recorded at 5 foot intervals (ASTM D-1586) and split spoons samples will be collected for each interval.
 2. All samples collected will be classified according to the Unified Soil Classification System (ASTM 4287). Visual-Manual descriptions (ASTM-2488) will not be accepted.
 3. Soil moisture content and unit weight will be determined (ASTM D-2216)
 4. Soils will be grouped by USCS classification and lithology. For each soil group cohesion (c) and internal friction angle (Φ) will be determined via direct shear (ASTM D-3230) or tri-axial (ASTM D-2850) test method. Tri-axial procedures will include either CD or CU with pore pressure methodologies so that end-state soil characteristics can be predicted. In order to predict end-state soil characteristics, at least one CD or CU with pore pressure tri-axial test will be performed on each soil group found on site.

Elastic settlement values will be calculated using the procedure in NAVFAC 7.1 or equivalent.

5. Consolidation settlement (ASTM D-2435) will be calculated for each lithology

Literature derived values for soil properties used in limit equilibrium slope stability and veneer stability models submitted with the permit appear in the following table:

Soil Color in Permit Application Display	General Location	Description	Unit Wt. (pcf)	Friction Angle	Cohesion
Green	Top Cover	Sand	105	30	0
Yellow	Waste/Debris	Waste/Trash	67	26	0
Blue	1 st Soil Layer	Sand	115	32	0
Brown	2 nd Soil Layer	Clay and/or Silt	120	0	1150
Pink	3 rd Soil Layer	Clay and/or Silt	125	0	2650
Gray	4 th Soil Layer	Clay and/or Silt	125	0	5000

- Colors keyed to lithologies shown in displays shown in permit application.

C. The permittee will compare the results obtained in tasks A and B1 through B6 (as specified above) with the literature values used in the models associated with the permit application. In all cases, the values determined during field sampling will meet or exceed the literature determined values presented in the permit application. If this is not the case, the permittee will either improve the existing soils to meet or exceed the literature derived values presented in the permit application or redesign the proposed construction so as to account for measured values obtained from field sampling.

D. The permittee will verify settlement calculations using results derived from field collected samples. Both elastic and consolidation settlement will be analyzed. The permittee will demonstrate that the LCS side slope and header gradients will be maintained both during the initial stages of settlement and throughout the life of the project (CD/CU with pore pressure tri-axial testing condition).

Relevant testing procedures are summarized in the following table:

Procedure	ASTM	Purpose
Mass Wt	D	Unit Weight
Moisture Content	ASTM D-2216	
Soil Classification	ASTM-2487	USCS classification
Dry Weight	D	Gamma dry
Atterberg Limits	ASTM D-4318D	LL, PL, PI
Direct shear	ASTM D-3830D	C, phi
Tri-axial Compression	ASTM D-2850D	C, phi end state properties
SPT	ASTM D-1586D	N,
Primary Consolidation	ATM D-2435D	Cv, Cc, Cr
Granulometry	ASTM D-422	Grain size distribution
Proctor (Modified)	ASTM-D-1557	Moisture content associated with optimum density
Elastic Settlement	NAVFAC DM7.1	Es, Kv

**APPENDIX 4
WATER QUALITY MONITORING PLAN**

Innovation Environmental Park Class I Landfill

**PERMIT NO: 331364-001-SO
WACS FACILITY ID: 102198
PERMIT DATE: May xx, 2015**

I. GENERAL

1. 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.]**
2. 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. 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), 62-701.510(2)(b), F.A.C. and DEP SOP FS 1008.]**

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

3. The permittee must ensure that the analytical laboratory conducting the analyses uses analytical methods capable of achieving detection limits at or below the Groundwater Cleanup Target Levels (GCTLs) or the Freshwater Surface Water Cleanup Target Levels (SWCTLs) 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 and SWCTLs that are not water quality standards are used as screening tools and interim guidelines for ground water minimum criteria until standards are promulgated. **[DEP SOP FM 1000]**
4. The zone of discharge for this facility shall extend horizontally 100 feet from the limits of the landfill disposal areas or to the property boundary, whichever is less, and shall extend vertically to the bottom of the surficial aquifer.
5. 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 may confirm the data

by resampling the affected 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. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. **[62-701.510(6)(a), F.A.C.]**

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, unless a different due date is approved. Use "CONF" (for confirmation data) in the report type column. **[62-701.510(8)(a), F.A.C.]**

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

II. GROUND WATER QUALITY MONITORING

1. The twenty seven ground water monitoring wells/piezometers included in this monitoring plan and designated for water quality testing and water level measurements are listed on **Attachment A** and shown on **Attachment B**. **[62-701.510(3)(d)2 & 3, F.A.C.]**

2. Any initial sample collected from a new ground water monitoring well, unless the new monitoring well is installed to replace an existing well within the monitoring network, shall be analyzed for the following Initial Ground Water Monitoring Parameters. **[62-701.510(5)(b), F.A.C.]**

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

* Mercury not listed because it is included in Appendix II.

* Appendix I is not listed because it is a subset of Appendix II

3. The twenty seven active monitoring wells for the landfill shall be routinely sampled and analyzed semi-annually in May and November for the following Ground Water Monitoring Parameters. **[62-701.510(5)(c) & (7)(a), F.A.C.]**

Field Parameters	Laboratory Parameters
1. Static water level in wells before purging	1. Ammonia – N, Total
2. Dissolved oxygen	2. Chlorides
3. pH	3. Iron
4. Specific conductivity	4. Mercury
5. Temperature	5. Nitrate
6. Turbidity	6. Sodium
7. Colors and sheens (by observation)	7. Total dissolved solids (TDS)
	8. Those parameters listed in 40 CFR Part 258, Appendix I

4. All water quality analyses will be performed on unfiltered samples unless approved by the Department.

III. SURFACE WATER MONITORING

1. The nine surface water sites included in this monitoring plan are listed on **Attachment A** and shown on **Attachment C**. **[62-701.510(4)(c), F.A.C.]**
2. Semi-annual samples from the nine surface water monitoring sites shall be collected in May and November. Water level measurements will also be collected in May and November at surface water locations SW-01, SW-02, SW-03, and SW-04. The samples shall be analyzed for the following Surface Water Monitoring Parameters. **[62-701.510(5)(d) & (7)(b), F.A.C.]**

Field Parameters	Laboratory Parameters
1. Surface Water Elevation	1. Unionized ammonia as N
2. Specific Conductivity	2. Total hardness as CaCO ₃
3. pH	3. Biochemical oxygen demand (BOD ₅)
4. Dissolved oxygen	4. Iron
5. Turbidity	5. Mercury
6. Temperature	6. Nitrate
7. Colors and sheens (by observation)	7. Total Dissolved Solids (TDS)
	8. Total Organic Carbon (TOC)
	9. Fecal Coliform
	10. Total Phosphorus as P
	11. Chlorophyll A
	12. Total nitrogen

Field Parameters	Laboratory Parameters
	13. Chemical Oxygen Demand (COD)
	14. Total Suspended Solids (TSS)
	15. Those parameters listed in 40 CFR Part 258 Appendix I

IV. MONITORING WELL REQUIREMENTS

1. If a monitoring well or piezometer becomes damaged or inoperable, the Permittee shall notify the Department within two (2) days of discovery with a written report within ten (10) days of notice. 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. **[62-520.600(6)(I), F.A.C.]**

2. New or replacement monitoring well design or placement must be approved by the Department. The design and construction of these wells must be based on site-specific borings with appropriate supporting data such as grain size distribution analyses, in-situ hydraulic conductivity testing, and depth to water. Wells shall be installed using standard, accepted practices for well construction. **[62-701.510(3), F.A.C. and 62-520.600(3) and (6), F.A.C.]**

3. 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.]**

4. The Department shall be notified in writing before any monitoring wells are abandoned or plugged. Wells shall be abandoned in accordance with Rule 62-532.500(5) F.A.C. and the rules of the Southwest Florida Water Management District. The permittee shall submit a written report to the Department within 30 days of well abandonment. **[62-701.510(3)(d)6, F.A.C.]**

V. REPORTING REQUIREMENTS

A. FIELD ACTIVITIES

1. 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) so that the Department may collect split samples. **[62-701.510(8)(a), F.A.C.]**

B. MONITORING WELL COMPLETION REPORT

2. One (1) paper copy and one (1) electronic copy (Adobe pdf format) of the Monitoring Well Completion Report, Form 62-701.900(30), F.A.C., (**Attachment D**) 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. **[62-520.600(6)(j), F.A.C.]**

NOTE: The top of casing elevation of each well, to the nearest 0.01 feet, and the latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, must be determined and certified by a Florida Licensed Surveyor and Mapper and provided on the form. **[62-701.510(3)(d)1 & 62-520.600(6)(i), F.A.C.]**

C. SURVEYING

3. One (1) paper copy and one (1) electronic copy (Adobe pdf format) of a drawing must be submitted within sixty (60) 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 a nationally recognized datum (such as NGVD 1929 or NAVD 1988) to the nearest 0.01 feet. The latitude and longitude of each well in degrees, minutes and seconds, to two (2) decimal places, 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, and 62-520.600(6)(i), F.A.C.]**
4. 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 monitoring plan 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 Report upon completion of each new well. **[62-701.510(3)(d)1, F.A.C.]**

D. DEPTH MEASUREMENTS

5. A total depth measurement must be made on each well at time of the Technical Report or every five years. 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.

E. INITIAL AND SEMI-ANNUAL SAMPLING AND SUBMITTING ELECTRONIC DATA

6. Required monitoring reports must be submitted to the Department within sixty (60) days from completion of laboratory analyses and shall follow the Department's electronic reporting requirements using the ADaPT software. **[Rule 62-701.510(8)(a), F.A.C.]**
7. Required water quality monitoring reports and analytical results shall be submitted electronically. Water quality monitoring reports shall be submitted in Adobe pdf format. The water quality data Electronic Data Deliverable (EDD) shall be provided to the Department in a comma separated text file electronic format consistent with requirements for importing the data into the Department's databases as summarized at: <http://www.dep.state.fl.us/waste/ADaPT/>. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations and shall include the following:
 - a) Cover letter ;
 - b) Summary of exceedances and recommendations;
 - c) Ground water contour maps;
 - d) Chain of custody forms;
 - e) Water levels, water elevation table;
 - f) Water Quality Monitoring Certification using Form Rule 62-701.900(31), F.A.C. (**Attachment E**);
 - g) Appropriate information using the Groundwater Sampling Log, Form FD 9000-24 (DEP-SOP-001/01) (**Attachment F**); and,
 - h) Laboratory and Field EDDs and error logs, as applicable.

All submittals in response to this specific condition shall be sent both to:

Florida Department of Environmental Protection Southwest District Office Air/Solid Waste Section 13051 N. Telecom Parkway Tampa, Florida 33637-0926 Email to: SWD_Waste@dep.state.fl.us	Florida Department of Environmental Protection Solid Waste Section 2600 Blair Stone Road, MS 4565 Tallahassee, Florida, 32399-2400 Email to: ADaPT.EDDs.and.Reports@dep.state.fl.us
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F. WATER ELEVATIONS

8. 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 and reported semi-annually. Surface water elevations at sampling locations must be measured to the nearest 0.01 foot on the same day as ground water levels in the wells and piezometers and reported semiannually. 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 a nationally recognized datum (such as NGVD 1929 or NAVD 1988), depth to water and calculated water level elevation referenced to the same nationally recognized datum. The ground water elevations shall be reported in the ADaPT data for the upload into WACS. **[62-701.510(8)(a)8, F.A.C.]**

G. GROUND WATER CONTOUR MAPS

9. Ground water elevation contour maps for each monitored aquifer zone must be submitted semi-annually to the Department, with contours at no greater than one foot intervals unless site specific conditions dictate otherwise. 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 a nationally recognized datum (such as NGVD 1929 or NAVD 1988), 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.]**

H. TECHNICAL REPORT

10. 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.

11. One (1) paper and one (1) electronic copy (Adobe pdf format) of the Technical Report shall be submitted to the Department on the following schedule: **[62-701.510(8)(b), F.A.C.]**

Report	Sampling Periods Covered	Number Of Semi-annual Sampling Events in Report	Date Technical Report Due
Interim Permit Report	November 2015 through November 2017	5	March 31, 2018
Interim Permit Report	May 2018 through May 2020	5	September 30, 2020
Interim Permit Report	November 2020 through November 2022	5	March 31, 2023
Interim Permit Report	May 2023 through May 2025	5	September 30, 2025
Interim Permit Report	November 2025 through November 2027	5	March 31, 2028
Interim Permit Report	May 2028 through May 2030	5	September 30, 2030
Interim Permit Report	November 2030 through November 2032	5	March 31, 2033
Renewal Report	May 2033 through May 2035	5	September 30, 2035

12. Required water quality monitoring reports and water quality data for the Technical Report shall be submitted in electronic format as described in Specific Conditions V. 6 and 7 of this Appendix. **[62-160.240, and 62-701.510(8)(a), F.A.C.]**

List of Attachments

Attachment A– Water Quality Sampling Testsite Information

Attachment B – Ground Water Monitoring Locations Map

Attachment C– Surface Water Locations Map

Attachment D– Monitoring Well Completion Report Form

Attachment E – Ground Water Monitoring Report Certification Form

Attachment F – Water Sampling Log

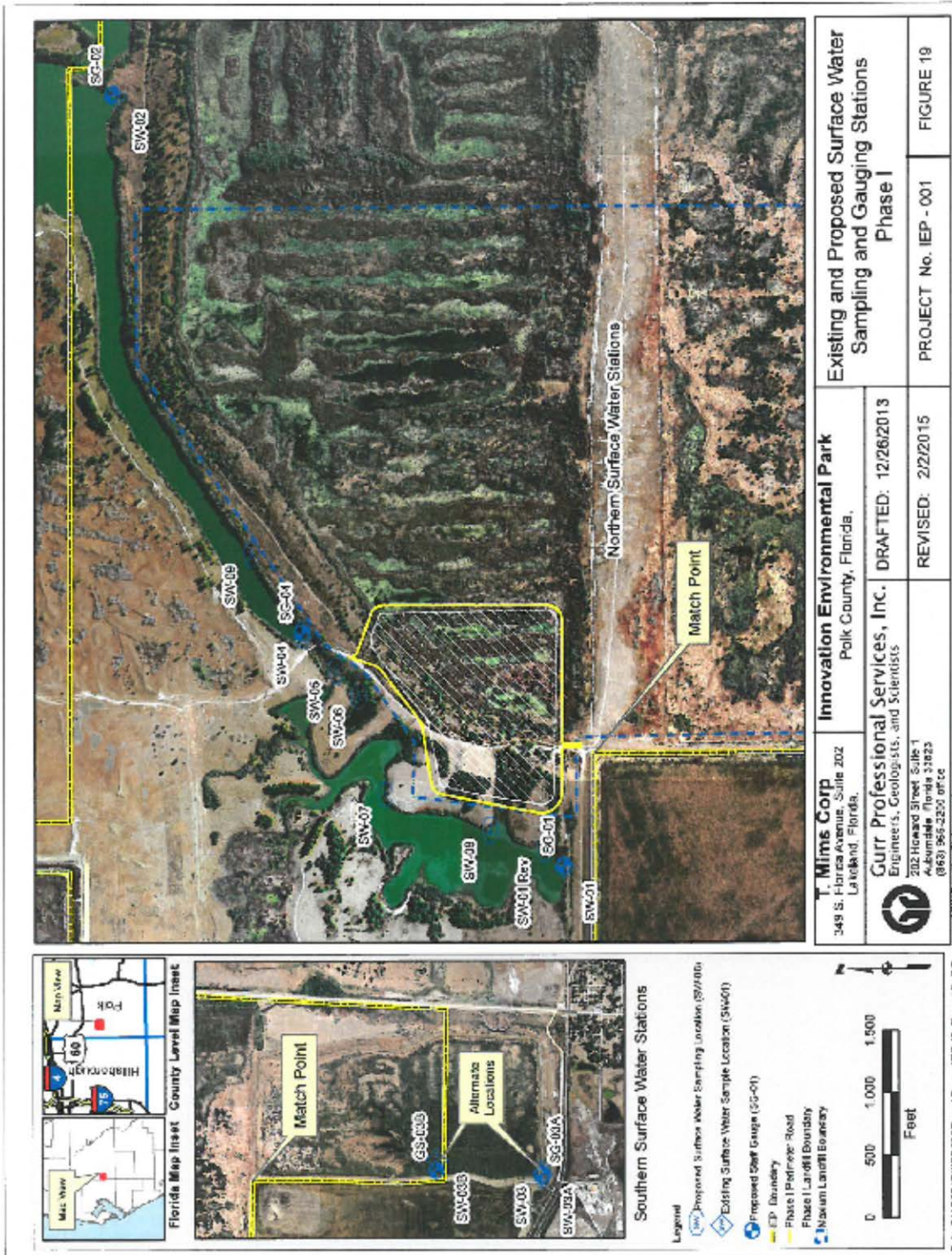
Attachment A – Water Quality Sampling Testsite Information

Monitoring Site Number	WACS Testsite ID	Designation	Aquifer	WACS Report Type
Ground Water				
SAS-01 (MWC-1)	00029479	Detection	Surficial Upper	SEMGW
UCU-01 (MWC-1)	00029480	Detection	Upper Confining Unit	SEMGW
IAS-01 (MWC-1)	00029484	Detection	Intermediate Aquifer	SEMGW
UFA-01 (MWC-1)	00029485	Detection	Upper Floridan Aquifer	SEMGW
SAS-02	00029493	Detection	Surficial Aquifer	SEMGW
SAS-03	00029494	Detection	Surficial Aquifer	SEMGW
UCU-02	00029495	Detection	Upper Confining Unit	SEMGW
SAS-04	00029496	Detection	Surficial Aquifer	SEMGW
SAS-05	00029497	Detection	Surficial Aquifer	SEMGW
UCU-03	00029498	Detection	Upper Confining Unit	SEMGW
SAS-06	00029499	Detection	Surficial Aquifer	SEMGW
SAS-07	00029500	Detection	Surficial Aquifer	SEMGW
UCU-04	00029501	Detection	Upper Confining Unit	SEMGW
SAS-08	00029502	Detection	Surficial Upper	SEMGW
UCU-05	00029503	Detection	Upper Confining Unit	SEMGW
SAS-09	00029504	Detection	Surficial Aquifer	SEMGW
UCU-06	00029505	Detection	Upper Confining Unit	SEMGW
SAS-10	00029506	Detection	Surficial Aquifer	SEMGW
SAS-11	00029507	Detection	Surficial Aquifer	SEMGW
SAS-12 (MWC-2)	00029508	Backgroun	Surficial Upper	SEMGW
UCU-07 (MWC-2)	00029509	Backgroun	Upper Confining Unit	SEMGW
IAS-02 (MWC-2)	00029510	Backgroun	Intermediate Aquifer	SEMGW
UFA-02 (MWC-2)	00029511	Backgroun	Upper Floridan Aquifer	SEMGW
SAS-13 (MWC-3)	00029512	Backgroun	Surficial Upper	SEMGW
UCU-08 (MWC-3)	00029513	Backgroun	Upper Confining Unit	SEMGW
IAS-03 (MWC-3)	00029514	Backgroun	Intermediate Aquifer	SEMGW
UFA-03 (MWC-3)	00029515	Backgroun	Upper Floridan Aquifer	SEMGW
Surface Water				
SW-01	00029516	Detection	NA	SEMSW
SW-02	00029517	Detection	NA	SEMSW
SW-03	00029518	Backgroun	NA	SEMSW
SW-04	00029519	Detection	NA	SEMSW
SW-05	00029521	Detection	NA	SEMSW
SW-06	00029522	Detection	NA	SEMSW
SW-07	00029523	Detection	NA	SEMSW
SW-08	00029524	Detection	NA	SEMSW
SW-09	00029525	Detection	NA	SEMSW

Attachment B – Ground Water Monitoring Locations Map



Attachment C – Surface Water Locations Map





ATTACHMENT D
Florida Department of
Environmental Protection

DEP Form # 62-701.900(30)
Form Title: Monitoring Well Completion Report
Effective Date: January 6, 2010
Incorporated in Rule 62-701.510(3), F.A.C.

MONITORING WELL COMPLETION REPORT

DATE:
FACILITY NAME: Innovation Environmental Park
DEP PERMIT NO.: 331364-001-SO WACS FACILITY ID NO.: 102198
WACS MONITORING SITE NUM.: WACS WELL NO.:
WELL TYPE: BACKGROUND [] DETECTION [] COMPLIANCE []
LATITUDE: LONGITUDE:
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:
INTERVAL COVERED: TO (BLS)
SEALANT TYPE: SEALANT INTERVAL: TO (BLS)
GROUT TYPE: GROUT INTERVAL: TO (BLS)
TOP OF CASING ELEVATION (NGVD): GROUND SURFACE ELEVATION (NGVD):
DESCRIBE WELL DEVELOPMENT:
POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD):
DATE AND TIME MEASURED:
REMARKS:
NAME OF PERSON PREPARING REPORT:
(Name, Organization, Phone No., E-mail)

NOTE: ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.(NGVD)
NATIONAL GEODETIC VERTICAL DATUM OF 1988 (BLS) = BELOW LAND SURFACE

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

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

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

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

Datum: the horizontal reference for measuring locations on the Earth's surface. NAD83North American Datum of 1983 is preferred.

Elevation Datum: the reference datum from which elevation measurements are made. NGVD88 (National Geodetic Vertical Datum of 1988) is preferred.

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

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

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

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

ATTACHMENT E
Florida Department of Environmental Protection
GROUND WATER MONITORING REPORT
Rule 62-520.900(2)

PART I GENERAL INFORMATION

(1) Facility Name Innovation Environmental Park

Address _____

City _____ Zip _____ County _____

Telephone Number (_____) _____ E-mail address _____

(2) WACS_Facility 102198

(3) DEP Permit Number 331364-001-SO

(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 _____

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

FACILITY NAME: Innovation Environmental Park	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:
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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):
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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:
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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	DUPLICATE: Y N
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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: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump
EQUIPMENT CODES: 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	Submittal Due Date	Required Item
A.3.	No later than XXXXXX, 2020	Submit construction permit renewal application
A.3.	No later than XXXXXX, 2035	Submit operation permit renewal application
A.6.	Every 5 years No later than XX/XX/2020, XX/XX/2025, and XX/XX/2030	Submit Report covering items a through d
A.7.	No later than XX/XX/2020, XX/XX/2025, and XX/XX/2030	Submit installment payment for 20 year operations permit.
B.2.a.i.	Prior to initiation of construction activities	Submit a dewatering plan for review and approval by the Department
B.2.b.i.	Following construction of the groundwater swale	Modification to the Operation Permit to update Appendix 3 to include Piezometers
B.2.b.ii.	Prior to installation of the liner system	Notify the Department and provide an alternate plan of dewatering to determine if a permit modification is required
B.3.	Prior to implementation of any changes	Notify the Department
B.5.	Upon completion of each phase of construction	Submit the Certification of Construction Completion to the Department
C.12.c.	After construction and at least once every years	Submit a report of jet cleaning or video inspection of LCS piping
C.14.a.	Annually, by January 20 th	Submit waste quantity records
C.14.b.	Annually, by September 1 st	Annual estimate of remaining life and capacity calculations
D.2. APPENDIX 4 Item 5.	Within 14 days of discovery	Notification of monitoring parameters significantly above background water quality or exceeding water quality standards or criteria specified in Rule 62-520, F.A.C., if Permittee chooses not to conduct a resampling event
D.2. APPENDIX 4 Item 5.	Within 30 days of receiving sampling results	Conduct a resampling event if monitoring parameters are detected significantly above background water quality or exceeding water quality standards

Specific Condition	Submittal Due Date	Required Item
D.2. APPENDIX 4 Item 5.	Within 60 days from completion of laboratory analysis	Results of all water quality monitoring sampling data
D.2. APPENDIX 4, Section II, Item 3.	Semi-annually in May and November	Sample ground water monitoring wells
D.2. APPENDIX 4, Section III, Item 2.	Semi-annually in May and November	Sample surface water locations
D.2. APPENDIX 4, Section IV, Item 1.	Within 2 days	Notify the Department if a monitoring well or piezometer becomes damaged or inoperable
D.2. APPENDIX 4, Section IV, Item 4.	Prior to abandonment	Department approval of abandonment plan for well unsuitable for groundwater monitoring or for any piezometer
D.2. APPENDIX 4, Section V, Item A 1.	At least 14 days prior to event	Notify the Department in writing prior to the installation and/or sampling of any monitoring wells
D.2. APPENDIX 4, Section V, Item B 2.	Within 30 days of installation	Submit Monitoring Well Completion Report
D.2. APPENDIX 4, Section V, Item C 3.	Within 30 days of monitoring well installation	Submit survey drawing of monitoring well locations
D.2. APPENDIX 4, Section V, Item E 6.	Within 60 days from completion of laboratory analysis	Submit monitoring reports to the Department
D.2. APPENDIX 4, Section V, Item G 9.	Semi-annually with ground water monitoring reports	Submit ground water elevation contour maps

Specific Condition	Submittal Due Date	Required Item
D.2. APPENDIX 4, Section V, Item H 10.	March 31, 2018 September 30, 2020 March 31, 2023 September 30, 2025 March 31, 2028 September 30, 2030 March 31, 2033 September 30, 2035	MPIS Technical Report
E.4.	Quarterly, by January 15 th , April 15 th , July 15 th , and October 15 th of each year	Submit results of routine landfill gas monitoring events
F.1.	60 days prior to planned acceptance of solid waste in any disposal unit and then annually	Submit proof that financial mechanisms are established and funded
F.2.	Annually, between January 1 and March 1	Submit closure cost estimates
G.1.	At least 90 days prior to the date when wastes will no longer be accepted	Submit an application for a closure permit to the Department