

ADEQ

ARKANSAS
Department of Environmental Quality

December 9, 2008

Eco-Vista, LLC
Attn: Mr. Kirby Thompson
2210 Waste Management Drive
Springdale, AR 72762

RE: Name Change of Permits from WM Tontitown Landfill, LLC to Eco-Vista, LLC
Permit Numbers: 0290-S1-R2, 0290-S4-R1, 0013-SCYW-MC, 0023-STSW-MC and 0005-SWTP
AFIN: 72-00144
Cross Reference Number(s): 53464, 53465, 53466, 53468, and 53469

Dear Mr. Thompson:

ADEQ - Solid Waste Management Division staff has reviewed your request for name change of Solid Waste Permits 0290-S1-R2, 0290-S4-R1, 0013-SCYW-MC, 0023-STSW-MC and 0005-SWTP from WM Tontitown Landfill, LLC to Eco-Vista, LLC. SWMD has determined that the request for name change meets the APC&EC Regulation 8 and Regulation 22 requirements. Based on the submittals received requesting this change, the Arkansas Department of Environmental Quality hereby transfers Permit Numbers 0290-S1-R2, 0290-S4-R1, 0013-SCYW-MC, 0023-STSW-MC and 0005-SWTP to Eco-Vista, LLC. Updated copies of each individual permit are attached. Note the general permits are not affected by the name change other than updating ADEQ records. Please review all terms and conditions of the permits to ensure compliance with all applicable requirements.

Please call me at (501) 682-0601 should you have any questions regarding the above information.

Sincerely,



Michael Robinson
Chief, SWMD

Enclosures

cc: Harry Elliott, Enforcement Branch Manager
Susan Speake, Programs Branch Manager
Mona Partman, SWMD, Technical Branch
Justin Sparrow, District Field Inspector, SWMD
Dave Conrad, Waste Management



PERMIT
FOR THE CONSTRUCTION AND OPERATION OF A
CLASS 1 SOLID WASTE DISPOSAL FACILITY
ISSUED BY
STATE OF ARKANSAS
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOLID WASTE MANAGEMENT DIVISION



Class 1 Landfill

Permit Number	0290-S1-R2
AFIN	72-00144
Effective Date	July 14, 2006; name changed December 9, 2008
Permit Owner & Address	Eco-Vista, LLC 2210 Waste Mnaagement Drive Springdale, AR 72762
Facility Site Name & Address	Eco-Vista, LLC 2210 Waste Management Drive Springdale, AR 72762
Location	Approximately two and one half miles south of Tontitown, Arkansas in Portions of Sections 14 and 23, Township 17 North, Range 31 West, Washington County, Arkansas
Permitted Landfill Disposal Area	112 Acres
Permitted Disposal Volume (Waste and Daily/Intermediate Cover)	10,490,000 Cubic Yards
Design Engineer/Consultant	Geosyntec Consultants 1100 Lake Hearn Drive, Suite 200 Atlanta, Georgia 30342 Genesis Environmental Consulting Inc. 11400 West Baseline Road Little Rock, AR 72119

This permit authorizes the operation of the solid waste disposal facility as set forth in the permit application by Eco-Vista, LLC, hereinafter called "owner or "permittee," and received by the Department of Environmental Quality on November 16, 1979. A summary of the major permit actions at this facility to date are as follows:

Summary of Previous Major Permit Actions

Permit Number	Date Issued	Permit Action
0123-SR-2	Sept 20, 1991	Site 3 permitted for waste disposal
0162-SR-2	Sept. 20, 1991	Site 4 permitted for waste disposal
0290-S1	July 31, 1997	North and South Phase permitted for waste disposal, Supersedes 0123-SR-2 and 0162-SR-2
0290-S1-R1	April 11, 2000	Permit Transfer to New Owner

This major permit modification was completed through a series of documents furnished by the applicant on July 29, 2004 (SWMD# 23797); November 3, 2004 (SWMD# 24718); November 12, 2004 (SWMD# 24818); December 29, 2004 (SWMD# 25407), October 7, 2005 (SWMD# 30273), January 17, 2006 (SWMD# 31841, 31843, 31844, 31845, 31846, 31850), March 3, 2006 (SWMD# 32593), March 22, 2006 (SWMD# 32870, 32871), April 27, 2006 (SWMD# 33577, 33578) and May 8, 2006 (SWMD# 33730). This permit modification is for a lateral expansion to the Eco-Vista, LLC, Class 1 Landfill. On the effective date, this permit supersedes all prior solid waste permits issued by the Department of Environmental Quality, hereinafter called "Department" for this Class 1 Permit including Permit Number 0123-SR-2 and 0162-SR-2. This permit is issued pursuant to the provisions of the Arkansas Solid Waste Management Act (Arkansas Code Annotated 8-6-201 et seq.) as amended, hereinafter called the "Act; Regulation Number 22, Arkansas Solid Waste Management Code, as adopted by the Arkansas Pollution Control and Ecology Commission, hereinafter called Regulation 22; all other applicable rules and regulations and the following terms and conditions:

PERMIT CONDITIONS

1. This permit is issued in reliance upon the statements and representations made in the application, operating narrative, plans, specifications, correspondence, and other related documents. The Department bears no responsibility for the adequacy or proper functioning of the disposal facility. Nothing contained herein shall be construed as releasing the permittee from any liability from damage to persons or property due to the installation, maintenance, or operation of the disposal facility or any act of the permittee, or the Permittee's employees or agents.
2. The disposal facility shall be constructed, operated and maintained in accordance with the final plans, specifications and operation narrative as approved by the Department and in compliance with applicable provisions of the Act, Regulation 22, and all other applicable rules and regulations.
3. At all times the disposal facility shall be maintained in good condition and operations shall be conducted by licensed, qualified on-site operators holding the appropriate license in accordance with Regulation Number 27, Licensing of Solid Waste Management Facilities and Illegal Dump Control Officers.
4. This permit may be revoked or modified whenever, in the opinion of the Department, the facility is no longer in compliance with the Act, Regulation 22, or other applicable rules and regulations. Except where expressly authorized by the Department, this permit shall not

- relieve the permittee, or the Permittee's employees or agents, from compliance with the provisions of the Act and Regulation 22.
5. The Department may issue modifications or amendments to this permit governing the design, operation, maintenance, closure or post-closure of the facility during the term of this permit. Such modifications or amendments shall be attached to this permit and shall be fully maintained and enforceable as a condition or conditions of this permit.
 6. The Department has received an initial permit fee from the permittee. Annual permit fees due thereafter shall be assessed in accordance with Regulation Number 9, Fee Regulation. The facility shall also be responsible for quarterly payments of other landfill disposal fees as required under Regulation 11, Regulations for Solid Waste Disposal Fees; Landfill Post-Closure Trust Fees and Recycling Grants Program. Failure to pay annual fees or quarterly payments when due may result in revocation of this permit.
 7. Transactions that affect the ownership of the facility must be fully disclosed to the Department.
 - a. For purposes of evaluating whether a change in ownership occurs, ownership or control may result from a change in the equity of the permittee of five percent (5%) or more.
 - b. If applicable, the permittee shall submit to the Department annual and quarterly reports required by the Securities and Exchange Commission (SEC) that provide information regarding legal proceedings in which the permittee has been involved in order to determine whether any change in ownership or control of the operation of this landfill has occurred.
 - c. A permit transfer will not be required when a change in ownership or control of the facility is among the persons and/or entities previously disclosed to the Department in the submitted Disclosure Statement or similar disclosure.
 8. The Department, its employees, agents, or any authorized person shall have the right to enter the property at any time for any reason as set out in Regulation 22 for the purposes of, including but not limited to taking samples, reviewing the operating record, inspecting the facility, and perform other enforcement or engineering action without interference or delay from the permittee.
 9. The permit will expire when the disposal area described in the final engineering plans for Site 3, Site 4, South Phase, North Phase (Drawing 5 of 9 Doc. ID# 27129), and Cells 1-8 (Drawing 8 of 21 Doc. ID # 30273) have been filled to design capacity and is closed out in accordance with the approved closure plans and provisions of Regulation. The final grades and elevations shown on the approved plans shall not be exceeded in anticipation of settlement and consolidation of the waste mass.
 10. The approved permit plans for the facility are as follows:

Bottom Grading and Liner Plan-North and South Phase	Drawing 2 of 21 Doc. ID# 5260
Leachate Collection/Bottom Liner Details-North and South Phase	Drawing 14 of 21 Doc. ID# 5260 Drawing 15 of 21 Doc. ID# 5260 Drawing 16 of 21 Doc. ID# 5104 Drawing 19 of 21 Doc. ID# 5104 Drawing 20 of 21 Doc. ID# 5260 Drawing 21 of 21 Doc. ID# 5104
Final Cover Plan-Site 3, Site 4, North and South Phase	Drawing 5 of 9 Doc. ID# 27129
Stormwater Control Plan-Site 3, Site 4, North and South Phase	Drawing 5 of 9 Doc. ID# 27129
North 1 Acre Liner/Leachate Collect./Leak Detect. System Details	Drawing 8a of 9 Doc. ID# 28042 Drawing 9 of 9 Doc. ID# 27129
North and South (Including North 1 Acre) Final Cover Details	Drawing 8a of 9 Doc. ID# 28042
Subgrade Grading Plan-Cells 1-8	Drawing 3 of 21 Doc. ID# 30273
Top of Primary Liner Grading Plan-Cells 1-8	Drawing 4 of 21 Doc. ID# 30273
Final Cover Grading Plan-Cells 1-8	Drawing 8 of 21 Doc. ID# 30273
Liner System Details-Cells 1-8	Drawing 12 of 21 Doc. ID# 30273
Leachate Collection System Details-Cells 1-8	Drawing 13 of 21 Doc. ID# 30273 Drawing 14 of 21 Doc. ID# 30273 Drawing 15 of 21 Doc. ID# 30273
Final Cover System Details-Cells 1-8	Drawing 16 of 21 Doc. ID# 30273
Surface Water Management Details-Cells 1-8	Drawing 17 of 21 Doc. ID# 30273 Drawing 18 of 21 Doc. ID# 30273
Erosion and Sediment Control Details-Cells 1-8	Drawing 19 of 21 Doc. ID # 30273
Landscaping Plan and Details-Cells 1-8	Drawing 20 of 21 Doc. ID # 30273 Drawing 21 of 21 Doc. ID # 30273

11. The facility is permitted for 10,490,000 cubic yards of solid waste disposal including daily and intermediate cover material. Of the 10,490,000 cubic yards of solid waste disposal capacity 5,990,000 is contained within Site 3, Site 4, and the North Phase and South Phase disposal areas. 4,500,000 cubic yards of solid waste disposal capacity is contained within Cells 1 through 8.

12. The permitted waste disposal area is 112 acres. This area includes the 66-acre permitted waste disposal boundary as shown on Drawing 2 of 9 of set of drawings assigned Document Identifier 27129 and the 46 acre area indicated in the legal description included on Drawing 2 of 21 of the set of drawings assigned Document Identifier 30273.
13. The following alternative bottom liner system configuration has been approved for the North 1 Acre Liner Area (Document Identifier 27129). The bottom liner system (including the bottom sideslopes) has been listed from bottom to top.
- A 24-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s
 - A 60-mil thick high density polyethylene (HDPE) geomembrane
 - A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filtersheet bonded to both sides of the geonet
 - A geosynthetic clay liner
 - A 60-mil thick high density polyethylene (HDPE) geomembrane
 - A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filtersheet bonded to both sides of the geonet
 - A 12-inch thick protective soil cover layer

This alternative bottom and bottom sideslope liner configuration has been approved in conjunction with the Liner System Equivalency Demonstration (Document ID# 28042).

14. The following bottom liner system configuration is approved for Cells 1-8 as shown on Drawing 12 of 21, Document Identifier 30273. The bottom liner system (including the bottom sideslopes) has been listed from bottom to top.
- A 24-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s
 - A 60-mil thick textured high density polyethylene (HDPE) geomembrane
 - A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet
 - A geosynthetic clay liner
 - A 60-mil thick textured high density polyethylene (HDPE) geomembrane
 - A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet
 - A 12-inch thick protective soil cover layer (Cell Floor - hydraulic conductivity of greater than or equal to 1×10^{-3} cm/s, Bottom Sideslopes - hydraulic conductivity of greater than or equal to 1×10^{-5} cm/s).

This alternative bottom and bottom sideslope liner configuration has been approved in conjunction with the Liner System Equivalency Demonstration (Appendix C10 of Volume 4 of 4, Document ID#30273).

15. The following final cover system configuration is approved for Cells 1-8 as shown on Drawing 16 of 21, Document Identifier 30273 . The final cover system has been listed from bottom to top.
- A 6-inch Gas Venting Layer consisting of soil with a minimum hydraulic conductivity of 1×10^{-3} cm/s or greater placed directly over the last lift of waste. If an active gas collection system is required and approved for this facility, this layer will be replaced by a minimum 12-inch thick intermediate cover layer.
 - A geosynthetic clay liner
 - A 40-mil thick textured linear low density polyethylene (LLDPE) geomembrane
 - A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet
 - 12-inch Protective Cover Soil Layer
 - 6-inch Vegetative Soil Layer

This alternative final cover system configuration has been approved in conjunction with the Alternate Final Cover System Equivalency Demonstration (Appendix D6 of Volume 4 of 4, Document ID#30273).

16. The permittee shall implement the Hazardous Waste Exclusion Plan presented in Section 24 of the Permit Modification Application having Solid Waste Management Division Document Identifier 30273. In addition to the implementation of the approved Hazardous Waste Exclusion Plan, the facility shall fully meet all requirements of Reg.22.412 regarding the exclusion of all unauthorized waste streams.
17. The facility is authorized to utilize synthetic tarps for daily cover if the material selected is of sufficient weight and durability to control disease vectors, fires, odors, blowing litter, and scavenging. The facility may not use alternate daily cover for more than six consecutive days. Upon notification from the Department the authorization to utilize alternate daily cover may be withdrawn or revoked at any time the Department determines that the alternate daily cover is not effective in controlling disease vectors, fires, odors, blowing litter and scavenging. The facility must place soil intermediate cover in compliance with Reg.22.413.
18. The permittee shall implement the Landfill Gas Monitoring Plan presented in Section 27 of the Permit Modification Application having Solid Waste Management Division Document Identifier 30273. In addition to the implementation of the approved Landfill Gas Monitoring Plan, the facility shall fully meet all requirements of Reg.22.415 regarding the control of explosive gases. The facility shall monitor each of the sixteen gas monitoring probes detailed in the approved Landfill Gas Monitoring Plan and within all structures at the facility on a quarterly basis. The results shall be submitted to the Department within 14 days of each monitoring event.

19. The permittee shall implement the requirements detailed in the General Operations Manual presented in Section 34 of the Permit Modification Application having Solid Waste Management Division Document Identifier 30273. In addition to the implementation of the approved General Operations Manual, the facility shall fully meet all operating requirements of Regulation 22 unless specifically address by a permit condition.
20. This permit authorizes one (1) active disposal area at the facility per Section 22.411 (c) of Regulation 22. A second working face may be approved in writing by the Department for the purpose of the disposal of wastes which may be impacted by non-routine activities.
21. Appropriate NPDES construction/storm water permit(s) shall be obtained for storm water discharges from the landfill site and borrow sites. A Storm Water Pollution Prevention Plan (SWPPP), which outlines erosion and sediment control measures, shall be prepared and implemented in accordance with applicable NPDES requirements. A copy of the SWPPP shall be maintained on-site for reference by operating staff.
22. The Action Leakage Rate for the facility including the North Phase, South Phase, and Cells 1-8 is 150 gallons per acre per day. The Action Leakage Rate is based on the calculations presented in Section 37 of the Permit Modification Application having Solid Waste Management Division Document Identifier 30273. The approved contingency plan for the Action Leakage Rate associated with the North and South Phases has Solid Waste Document Identifier 18104. The approved contingency plan for the Action Leakage Rate associated with Cells 1-8 has been included in the submittal having Solid Waste Document Identifier 33577.
23. The permittee shall implement the Construction Quality Assurance Plan presented in Section 44 of the Permit Modification Application having Solid Waste Management Division Document Identifier 30273. In addition to the implementation of the approved Construction Quality Assurance Plan, the facility shall fully meet all requirements of Reg.22.428. Since the approved Construction Quality Assurance Plan does not include site specific testing standards, the facility shall be required to submit construction plans and specifications prior to each construction event at the facility. The facility shall not begin construction until the Department has reviewed and approved the construction plans and specifications for each construction event.
24. The permittee shall implement the Closure and Post Closure Care Plan presented in Section 45 of the Permit Modification Application having Solid Waste Management Division Document Identifier 30273. In addition to the implementation of the approved Closure and Post Closure Care Plan, the facility shall fully meet all requirements of Reg.22.1301 and Reg.22.1302. The post closure maintenance period for this facility shall be a minimum of 30 (thirty) years starting on the date the Department accept closure of the facility. The length of the post closure period may be decreased or increased by the Director in accordance with Regulation 22.1302(c)(4).
25. The initial total amount of financial assurance is \$4,853,935. Of this amount, \$4,363,435 dollars will be required for closure costs and \$490,500 dollars will be required for the post-closure care costs. This amount shall be subject to annual adjustments and may be increased at the discretion of the Department based upon the estimated cost for a third party to close the largest area requiring final cover during the active life of the facility and the cost for a third party to perform post closure care.

- a. The instruments used must be in one of the forms set forth in Regulation 22 or as otherwise approved by the Department.
 - b. This permit shall not become effective until all financial assurance is satisfactorily filed with the Department.
 - c. A portion or all of the financial assurance may be held by the Department beyond the time of cessation of disposal operations at the site to ensure satisfactory closure and post closure care in accordance with Regulation 22.
26. The permittee will install an additional 60-mil High Density Polyethylene Geomembrane under the entire leachate collection sump and the entire leachate collection trench for each cell (Cells 1-8). The second geomembrane shall be installed and tested to the same standards as the primary liner material.
27. The facility shall measure and record the fluid accumulation in each leachate collection system and leachate detection system sump and storage tank each day except Sundays, and State of Arkansas observed holidays. The facility shall, on a daily basis, measure and record the amount of liquid removed from Cells 1-8 including the leachate collection and leak detection system sumps. The results of the leak detection system sump fluid accumulation measurements and the amount of liquids removed from the leak detection system shall be utilized in the calculation of the leak detection system flow rate. The facility may utilize a three day average in determining compliance with the action leakage rate. The equipment and methods for determining the fluid removed from the leachate collection and leak detection system in Cells 1-8, shall be reviewed and calibrated when any modifications are made to the leachate collection and leak detection system. Documentation of the calibration shall be submitted within 30 days of making a modification to the leachate collection and leak detection system. Upon construction of a new landfill cell, documentation of the calibration shall be submitted with the construction quality assurance certification report.
28. The facility shall collect samples from the leak detection system and leachate collection system sumps monthly. The samples shall be analyzed for chloride, ammonia, specific conductance, and pH. In addition the facility shall collect samples from the leak detection and leachate collection system sumps annually and test the samples for iron, manganese, total organic carbon, and the constituents listed in Appendix 1 of Regulation 22. If the facility is in assessment monitoring or corrective action, every three years the facility will analyze the annual leak detection and leachate collection samples for all Regulation 22 Appendix 2 parameters. The results of the sampling detailed above shall be submitted to the ADEQ directly from the analytical testing laboratory and shall be included in the groundwater monitoring reports for the facility.
29. A groundwater monitoring system shall be established and maintained at the facility that consists of a sufficient number of wells or sampling points, installed at appropriate locations and depths that will yield representative samples of groundwater quality. The monitoring system shall be installed, operated and maintained in accordance with the approved design specifications throughout the active life of the facility and throughout the post-closure care period.

30. All groundwater monitoring at the site as described in this Permit, the approved Groundwater Sampling and Analysis Plan (GWSAP), and the Corrective Action Monitoring Program will follow the provisions detailed within Regulation 22 except for the following variances:
- a. Monthly sampling and reporting of indicator parameters as detailed in Condition 32a and 34.
 - b. Decreased well sampling during the 2nd and 4th quarters as detailed in Condition 32b.
 - c. Decreased frequency of Appendix 2 sampling as detailed in Condition 32c.
 - d. Inclusion of Leak Detection System (LDS) and Leachate Collection System (LCS) monitoring results within groundwater monitoring reports as detailed in Condition 34.
31. Groundwater Monitoring System:
- a. The groundwater monitoring system for the Tontitown Class 1 landfill consists of 23 wells (MW-1N, MW-2N, MW-3N, MW-4N, MW-5N, MW-7N, MW-8N, MW-10N, MW-11N, LGW-1, LGW-2, LGW-3, LGW-4, LGW-5, LGW-6, LGW-7, LGW-8, LGW-9, LGW-10, LGW-11, LGW-12, LGW-13 and LGW-14). The Nature and Extent wells are currently monitored under the Corrective Action Monitoring Program for the site and may be added to the standard groundwater monitoring system in the future.
 - b. Any modification of the groundwater monitoring system will follow the provisions of Regulation 22. Wells LGW-11, LGW-12, and LGW-13 will be decommissioned as the landfill cells at the well locations are constructed.
32. The groundwater monitoring system will be monitored per Regulation 22 and the following:
- a. Monthly Indicator Parameter Sampling: Wells LGW-1 through LGW-10, LGW-14, and MW-7N shall be sampled monthly for the following indicator parameters: ammonia, chloride, pH and specific conductance. Groundwater elevations will be measured prior to sampling.
 - b. Quarterly Sampling: After collection of baseline pre-expansion groundwater quality in all LGW wells, all 23 monitoring wells at the site shall be sampled quarterly as follows:
 - i.) During the 1st and 3rd quarters all monitoring wells shall be sampled for the full suite of parameters on the Assessment Monitoring Constituents (AMC) list (defined in Reg.22.1205(b)), plus Iron (Fe), Manganese (Mn) and Total Organic Content (TOC).
 - ii.) During the 2nd and 4th quarters any facility monitoring well which had: 1) a parameter exceedance of the established Ground Water Protection Standard (GWPS) (defined in Reg.22.1205(h)) during the previous quarter or 2) an Statistically Significant Increase (SSI) during the monthly indicator sampling since the last full AMC list sampling shall be sampled for the full suite of parameters on the AMC list (defined in Reg.22.1205(b)), plus Fe, Mn and TOC.

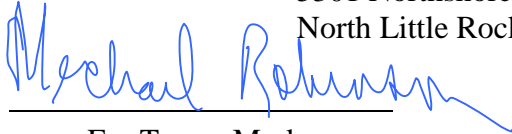
- iii.) Should the facility be authorized by the Depart to return to Detection Monitoring per Regulation 22, the AMC parameter list will be replaced by Appendix 1 of Regulation 22.
 - c. Appendix 2 Sampling: Per Regulation 22, Appendix 2 sampling will occur while the facility is in Corrective Action or Assessment Monitoring.
 - i.) All monitoring wells which had an exceedence of the GWPS the previous calendar year shall be sampled for the full list of Appendix 2 parameters;
 - ii.) All 23 monitoring wells shall be sampled for the full list of Appendix 2 parameters every three years with the first sampling event to occur in 2006, then, 2009, 2012, etc.
 - d. Corrective Action Sampling: While the facility is within Corrective Action, Nature and Extent wells shall be monitored in accordance with a Department approved Corrective Action Monitoring Program for the facility.
33. The statistical analysis of groundwater sampling results will follow Regulation 22 and an SWMD approved Groundwater Sampling and Analysis Plan. Below are items from Regulation 22 included here for clarification.
- a. Background Groundwater Quality: After collection of baseline pre-expansion groundwater quality in all LGW wells, a background data set will be created for the whole site and approved by SWMD for use in statistical analysis. The background data set will be from wells confirmed to be unaffected by leakage (including landfill gas) from the facility.
 - b. Statistically Significant Increase: Per Reg.22.1204(c) the facility will determine if a Statistically Significant Increase (SSI) has occurred based on results of the most recent sampling event during detection monitoring. To assist in characterizing the groundwater at the site and per Reg.22.1203(k), SSIs will be determined at each well even if the facility is in assessment monitoring or corrective action status.
34. The reporting of groundwater monitoring results will follow Regulation 22 with the following additions:
- a. Monthly Indicator Parameters Report: A monthly indicator parameters report will be due at the end of each month and will include:
 - i.) Analytical data from that month's indicator sampling of groundwater, the leak detection system, and the leachate collection system. Groundwater elevations should also be included.
 - ii.) List of calculated SSIs for all monthly results from the groundwater monitoring wells.
 - iii.) Graphs for each SSI, presenting the parameter at the location 1) over the past year and 2) since monthly monitoring began.
 - iv.) Database printout of all monthly sampling analytical results since beginning of monthly indicator sampling.
 - v.) Daily volume and rate data collected from the leak detection system and the leachate collection system since the last report.

- vi.) Discussion of all results obtained from the groundwater monitoring wells.
- b. Groundwater Monitoring Reports: The groundwater monitoring reports (GWMR) will follow Regulation 22 with the addition of:
 - i.) A summary discussion of the monthly indicator sampling results since the last GWMR;
 - ii.) A summary discussion of the Corrective Action Monitoring Plan results since the last GWMR.
 - iii.) Analytical results of the leak detection system and leachate collection system sampling for expanded parameters (AMC list or Appendix 2 parameters) after each of the expanded sampling events.
- 35. Any statements in the operational narrative, application documents, specifications, and/or engineering plans that conflict with Regulation 22, permit conditions herein, or other applicable laws and regulations shall not be considered authorized by the Department.
- 36. The owner may submit additional modification applications for expansions to the permitted capacity of the facility without obtaining a certificate of need from the local regional solid waste management district up to an additional permitted landfill waste disposal capacity (from that granted by this permit) of 5,500,000 cubic yards (10,000,000 cubic yards – 4,500,000 cubic yards). Proposed expansions in which the total permitted waste disposal volume of the facility is proposed to exceed 15,990,000 cubic yards will require a certificate of need. Any proposed future landfill expansions are still subject to all additional provisions of Regulation 22.
- 37. The Department's decision to issue this permit is final for purposes of appeal as of the date indicated in the Certificate of Service below. If any provision of these conditions or the application of these conditions thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of these conditions that can be given effect without the invalid provision or application. Therefore, to this end, the provisions of these conditions are declared to be severable.

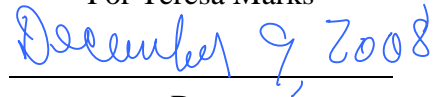
APPROVED BY: **Arkansas Department of Environmental Quality**

5301 Northshore Drive

North Little Rock, Arkansas 72218

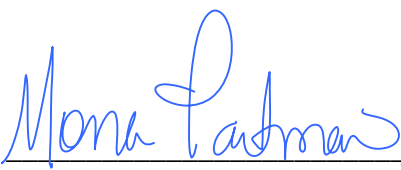


For Teresa Marks



Date

CERTIFICATE OF SERVICE

I,  , hereby certify that a copy of this permit has been mailed by first-class mail to Mr. Kirby Thompson, 2210 Waste Management Drive, Springdale, AR 72762, on or before this 10th day of Dec , 2008

Permit Modification Application Summary and Rationale
Eco-Vista, LLC Class 1 Landfill
Pending Permit No. 0290-S1-R2; AFIN 72-00144
May 2006

Permit Application Summary

This summary form consists of information submitted during the permitting process. It represents basic information from the administrative record utilized in forming recommendations from the Solid Waste Management Division. The entire file for the solid waste permit application specified below should be reviewed for complete details on the proposed facility.

Permit Application Summary	
1. Name of Applicant:	Eco-Vista, LLC
2. Type of Facility:	Class 1 landfill
3. Engineering Firm:	GeoSyntec Consultants & Genesis Environmental Consulting, Inc.
4. Application Date:	Original Application: November 16, 1979 Modification Application Submitted on July 25, 2002.
5. Site Location	Approximately two and one half miles south of Tontitown, Arkansas in Portions of Sections 14 and 23, Township 17 North, Range 31 West, Washington County, Arkansas
6. Permit Area:	Total Property Area: 542 ± acres Permitted Waste Disposal Area: 112 acres
Residences Within 2 Miles:	420 Dwellings located on all sides of the facility
Water Supplies Within 2 Miles:	Approximately 20 based upon Arkansas Geological Commission well log records.
Wetlands:	No wetlands located within the expansion area.
Geology:	<p>The facility is located in the Ozark Plateau physiographic province and on the upper Boone Formation. The Boone Formation is a cherty limestone of Mississippian age with an approximate thickness of 280 feet in northwestern Arkansas. During weathering, the limestone dissolves, leaving a chert and clay residuum at the land surface. This residuum is 20 to 90 feet thick on the landfill property. The Boone Formation rests conformably on the St. Joe Member and together comprise one unit known as the Boone-St. Joe Aquifer. The Boone-St. Joe rests unconformably on the Devonian-aged Chattanooga Shale.</p> <p>Dissolution of limestone in the Boone Formation has created karst terrain in northwest Arkansas. At the landfill facility, a weathering zone termed epikarst is present. This zone is created from the dissolution of limestone leaving a porous chert matrix with high permeability. This zone is an avenue for fast groundwater</p>

Permit Application Summary	
	flow when saturated, fast gas flow when unsaturated, and may store large volumes of recharge water during rain events.
Soils:	Based on the Washington County Soil Survey prepared by the USDA Soil Conservation Service, soils in the vicinity of landfill belong to the Captina silt loam, Nixa cherty silt loam, Clarksville Cherty Silt Loa, Razort gravelly silt loam, Elsah gravelly soils and Johnsburg silt loam associations.
Ground Water:	<p>The facility is located above the Boone-St. Joe Aquifer which regionally has good water quality.</p> <p>Fast groundwater flow has been documented at the site with ranges of five to several hundred feet per day. The fast flow is thought to occur within epikarst zones. The epikarst is characterized as occurring throughout the entire area as a highly variable continuum, varying significantly in degree of development. Groundwater flow direction at the site is largely northwest to southeast. However, northerly and easterly groundwater flow components have been identified.</p>
Surface Drainage Sequence:	Natural Drainage in the expansion area generally flows to the Southeast. No major streams exist on the property. Drainage from the property eventually flows to Little Wildcat Creek located Southeast of the property.
Waste Streams:	All eligible Class 1 and 4 wastes,
Capacity (consultant estimation):	Total Capacity = 10,490,000 Cubic Yards
Disposal Rate	243,286 tons./year
Projected Active Life after this modification	10 years
Bottom Liner System:	<p>The following alternative bottom liner system configuration has been approved for the North 1 Acre Liner Area</p> <ul style="list-style-type: none"> • A 24-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s • A 60-mil thick high density polyethylene (HDPE) geomembrane • A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filtersheet bonded to both sides of the geonet • A geosynththetic clay liner • A 60-mil thick high density polyethylene (HDPE) geomembrane • A geocomposite drainage layer, consisting of high-density

Permit Application Summary	
	<p>polyethylene geonet with geotextile filtersheet bonded to both sides of the geonet</p> <ul style="list-style-type: none"> • A 12-inch thick protective soil cover layer <p>The alternative bottom and bottom sideslope liner configuration has been approved in conjunction with the Liner System Equivalency Demonstration (Document ID# 28042).</p> <p>The following bottom liner system configuration is approved for Cells 1-8.</p> <ul style="list-style-type: none"> • A 24-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s • A 60-mil thick textured high density polyethylene (HDPE) geomembrane • A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet • A geosynthetic clay liner • A 60-mil thick textured high density polyethylene (HDPE) geomembrane • A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet • A 12-inch thick protective soil cover layer (Cell Floor - hydraulic conductivity of greater than or equal to 1×10^{-3} cm/s, Bottom Sideslopes - hydraulic conductivity of greater than or equal to 1×10^{-5} cm/s.b <p>The alternative bottom and bottom sideslope liner configuration has been approved in conjunction with the Liner System Equivalency Demonstration (Appendix C10 of Volume 4 of 4, Document ID#30273).</p>
Final Cover:	<p>The following final cover system configuration is approved for Cells 1-8</p> <ul style="list-style-type: none"> • A 6-inch Gas Venting Layer consisting of soil with a minimum hydraulic conductivity of 1×10^{-3} cm/s or greater placed directly over the last lift of waste. If an active gas collection system is required and approved for this facility this layer will be replaced by a minimum 12-Inch thick intermediate cover layer. • A geosynthetic clay liner • A 40-mil thick textured linear low density polyethylene (LLDPE)

Permit Application Summary

geomembrane

- A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet
- 12-inch Protective Cover Soil Layer
- 6-inch Vegetative Soil Layer

The alternative final cover configuration has been approved in conjunction with the Alternate Final Cover System Equivalency Demonstration (Appendix D6 of Volume 4 of 4, Document ID#30273).

Permit Summary and Rationale

The following information was considered during the preparation of a draft permit for the proposed facility:

- Permit Pre-Application submitted on 4/3/2002 and revised on 6/3/2003.
- This major permit modification was completed through a series of documents furnished by the applicant on July 29, 2004 (SWMD# 23797); November 3, 2004 (SWMD# 24718); November 12, 2004 (SWMD# 24818); December 29, 2004 (SWMD# 25407), October 7, 2005 (SWMD# 30273), January 17, 2006 (SWMD# 31841, 31843, 31844, 31845, 31846, 31850), March 3, 2006 (SWMD# 32593), March 22, 2006 (SWMD# 32870, 32871), April 27, 2006 (SWMD# 33577, 33578) and May 8, 2006 (SWMD# 33730).
- Correspondence from the Permittee;

Condition No.	Permit Conditions
1	States the Department has no responsibility for the proper functioning of the disposal facility and the permittee is not exempt from liability to third parties per Regulation 8.
2	Concerns the requirements for construction and operation of the disposal facility in accordance with the approved plans/specifications/operation narrative are in accordance with Sections 22.308, 22.411, and 22.422 of Regulation 22.
3	Concerns requirements to maintain the disposal facility in good operating condition under licensed, qualified, on-site landfill operators is in accordance with Section 22.411 of Regulation 22 and with Regulation 27.
4	Concerns the right of the Department to revoke or modify the permit in the event the facility is no longer in compliance with the Arkansas Solid Waste Management Act, Regulation 22, or other applicable regulations are in accordance with Section 22.308 of Regulation 22.
5	Concerns issuance of modifications to the permit by the Department is in accordance with Sections 22.308 and 22.422 of Regulation 22.
6	Concerns payment of permit fees in accordance with Regulation 9.
7	Concerns permit transfer and disclosure is in accordance with Act 454 of 1991.
8	Concerns the right of Department employees to enter the permittee's property to inspect the facility at any time without interference or delay is in accordance with Section 22.1501 of Regulation 22.
9	Concerns the expiration of the permit. The permit will expire when the facility is filled to permit capacity and closed out in accordance with Regulation 22 and the approved Closure Plan.
10	This permit condition details the approved landfill plans for the facility. Any changes to the plans listed below will require a modification to the facility permit.
11	This permit condition details the approved waste disposal capacity for the expanded landfill. The volumes are based on the calculations prepared and presented by the applicant.
12	This permit condition establishes the permitted waste disposal boundary. Waste disposal

Condition No.	Permit Conditions
	outside this area is not approved.
13	This permit condition outlines the approved bottom configuration for the North 1 Acre Area as previously approved by the Department.
14	This permit condition establishes the approved bottom configuration for Cells 1-8 of the facility. Approval of this alternate configuration was completed in conjunction with the presented Liner Equivalency demonstration.
15	This permit condition establishes the approved final cover system for Cells 1-8. Approval of this alternate configuration was completed in conjunction with the presented Final Cover System Equivalency demonstration.
16	This permit condition identifies the approved Hazardous Waste Exclusion Plan for the facility as required by Regulation 22.412.
17	This permit authorizes the use of synthetic tarps as an alternate daily cover. This condition was approved based on the landfills previous success utilizing alternate cover material.
18	This permit condition details the approved Explosive Gas Monitoring System and Plan. As required by Regulation 22.415.
19	This permit condition establishes the approved Operating Plan and Narrative as required by Regulation 22.
20	This permit condition approves the use of a second working face only for the disposal of wastes affected by non-routine activities.
21	Concerns measures to control and prevent stormwater run through or into the active face and requirements for appropriate NPDES permit(s) and a Storm Water Pollution Prevention Plan (SWPPP) is in accordance with Sections 22.418, 22.419 and 22.427 of Regulation 22, and the Clean Water Act.
22	This permit condition establishes the Action Leakage Rate for the facility. The ALR was establish based on the calculations prepared and presented by Geosyntec. This condition also establishes the approved contingency plan for the ALR.
23	This permit condition establishes the approved CQA Plan for the facility and requires review and approval of construction documents prior to all construction events.
24	This permit establishes the approved Closure and Post Closure Care Plan for the facility as required by Regulation 22.1301-22.1302.
25	Specifies the initial amount of financial assurance. (Regulations 22.1402 and 22.1403).
26	This permit condition requires the double lining of the leachate sumps and leachate collection trenches.
27	This permit condition the monitoring of the quantity of fluid in the leachate sumps, leak detection sumps and leachate storage tanks.
28	This permit condition requires the analytical testing and reporting of the leachate collection and leak detection system.

Condition No.	Permit Conditions
29	A groundwater monitoring system shall be established and maintained at the Tontitown Class 1 landfill that consists of a sufficient number of wells or sampling points, installed at appropriate locations and depths that will yield representative samples of groundwater quality (per Reg.22.1202). The monitoring system shall be installed, operated and maintained in accordance with the approved design specifications throughout the active life of the facility and throughout the post-closure care period (per Reg.22.1201(d) and Reg 22.1302(b)).
30	All groundwater monitoring at the site as described in this Permit, the Groundwater Sampling and Analysis Plan (GWSAP) and Corrective Action Monitoring Program will follow the <u>standard</u> provisions within Regulation 22 except for the variances listed. This condition is to clarify that the standard provisions of Regulation 22 were intended to be followed except for the variances listed. Due to the length and complexity of the plans, there may be items that differ from Regulation 22 standard provisions – these differences are unintentional and the standard provisions of Regulation 22 should be followed.
31	List of the 23 wells currently part of the groundwater monitoring system. Modification of the groundwater monitoring system will follow Regulation 22. Wells LGW-11, LGW-12, and LGW-13 will be decommissioned as the landfill cells at the well locations are built. However, monitoring wells LGW-4, LGW-5, LGW-7, and MW-7N should be monitored during active life of the facility and throughout the post-closure care period. Significant effort will be required to repair these four wells if they are damaged. These four wells had “positive” or “likely” dye traces during the 2005 dye study and were found to be screened within preferential groundwater flow zones. This may require significant excavation around the well to replace/repair the well casing, use of drilling rigs to help clear the inside of the well, or any other means needed to repair the wells. The facility must obtain permission from the SWMD to install, decommission, replace, repair, or otherwise alter monitoring wells per Reg.22.1103(f) and 1202(c).
32	Requires Monthly Indicator Parameter sampling. Per Reg.22.1204(b)(1) and Reg.22.1205(c), the Director may specify an alternate frequency for sampling and analysis. The increase frequency required is based on the high groundwater flow rates (5 to several hundred feet per day) documented at the site during dye testing. Requires Quarterly Sampling – per Reg.22.1204(b) for landfills within the Boone-St. Joe outcrop area. Decreased well sampling during the 2 nd and 4 th quarters are included due to the increased Monthly Indicator Parameter sampling in Condition 4a. Requires full Appendix 2 sampling during Assessment Monitoring and Corrective Action per Reg.22.1205 and Reg.22.1206. This condition requires full Appendix 2 sampling for wells which had an exceedance of the GWPS during the previous calendar year and all wells every 3 years. This is a decrease in the standard Regulation 22 Appendix 2 sampling which is normally performed annually during Assessment Monitoring or Corrective Action per Reg.22.1205(b). Requires Corrective Action Sampling per an SWMD approved Corrective Action Monitoring Program while the facility is in Corrective Action Status per Reg.22.1208.
33	Requires creation of a background groundwater quality data set for use in statistical analysis. The background data set will be from wells confirmed to be unaffected by leakage (including landfill gas) from the unit. This requirement is from Reg.22.1202(a)(1) and Reg.22.1203(e). Requires the facility to determine if a Statistically Significant Increase (SSI) has occurred based on results of the most recent sampling event during

Condition No.	Permit Conditions
	detection monitoring per Reg.22.1204(c). To assist in characterizing the groundwater at the site and per Reg.22.1203(k), SSIs will be determined at each well even if the facility is in assessment or corrective action status.
34	Requires a Monthly Indicator Parameters Report that presents the monthly groundwater quality indicator data collected and daily data from the leak detection system and the leachate collection system. The increased sampling is in Condition 4a per Reg.22.1204(b)(1) and Reg.22.1205(c). Requires discussion of monthly indicator data, and the corrective action sampling within the regular Groundwater Monitoring Reports (GWMR). Also requires analytical results from the leak detection system and leachate collection system to be included in the GWMR. Other contents of the GWMR are discussed in Reg.22.1203(k).
35	Concerns the requirements for the permittee to comply with Regulation 22 or permit conditions in the event of a conflict between them and representations in the permit application documents is in accordance with Section 22.308 of Regulation 22.
36	This condition refers to the director's decision to authorize the facility to proceed with expansions of the facility up to the districts need. This amount was estimated at 10,000,000 million additional cubic yards prior to this modification.
37	Concerns providing notice for the purpose of appeal of the final permit in accordance with Section 22.306 of Regulation 22 and in accordance with Regulation 8. Provisions regarding severability are in accordance with Section 22.1601 of Regulation 22.

This document was prepared by Seneca Jacobs, Esq., P.E. Engineer Supervisor and Bill Sadler, P.G. Geologist.

ADEQ

ARKANSAS
Department of Environmental Quality

January 19, 2011

Eco-Vista, LLC
Attn: Ms. Lisa Rotenberry
100 Two Pine Drive
North Little Rock, AR 72117

**RE: Approval for Minor Permit Modification and Transmittal of Permit Addendum
Eco-Vista, LLC Class 1 Landfill**
Permit Number: 0290-S1-R2 AFIN: 72-00144
Document Number: 58864 Cross Reference Number: 57568 and 58519

Dear Ms. Rotenberry:

ADEQ Solid Waste Management Division staff has received and reviewed a minor permit modification application associated with the construction of a leachate force main. The minor modification was for the purpose of improving leachate management. Leachate from the southside leachate storage tank and northside leachate storage tank will be conveyed via an on-site leachate force main to an off-site wastewater transmission line. The SWMD hereby approves the minor permit modification and transmits the attached permit addendum, permit application summary and revised permit rationale. The revised permit rationale provides the basis for permit condition 10 and clarifies the basis for permit condition 20.

This authorization is given in reliance upon the statements and representations made to the Department, and the Department has no responsibility for ultimate proper functioning of the disposal facility. The Department also reserves the right to request additional information if deemed necessary. This approval shall not remove any liability nor hold the Eco-Vista Class 1 Landfill harmless in the event of any adverse environmental or public health conditions resulting from this authorization. The Eco-Vista Class 1 Landfill shall be solely and fully responsible for implementing any corrective action necessary to remediate any adverse condition at the site based on this authorization.

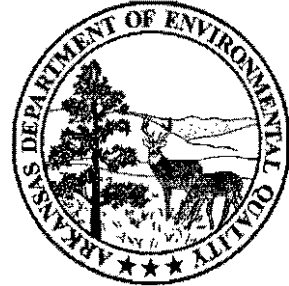
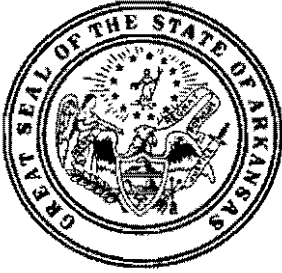
Please call me at 682-0601 should you have any questions regarding the above information.

Sincerely,



Karen Bassett, Chief Deputy Director ADEQ

cc: Justin Sparrow, District Field Inspector SWMD
Jeff Shepherd, Shepherd Engineering & Design Company, Inc.
David Conrad, Waste Management



ADDENDUM TO PERMIT

STATE OF ARKANSAS

DEPARTMENT OF ENVIRONMENTAL QUALITY

SOLID WASTE MANAGEMENT DIVISION

Landfill Name		AFIN:	72-00144
Eco-Vista, LLC Tontitown		Permit No:	290-S1-R2
Application reference	Description of Addendum to Permit		
August 9, 2010 Document # 57568	Updated Operating Plan to include the provisions for disposing of leachate through an on-site leachate force main connected to an off-site wastewater treatment line. Updated Facility Design Plan to include an on-site leachate force main to convey leachate from the southside leachate storage tank and northside leachate storage tank to an off-site wastewater transmission line.		
Additional Permit Conditions			
Condition #10a.	The approved plans for the leachate forcemain for the facility are as follows: Drawings 3 through 26 of Document # 57568.		

APPROVED BY: Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317.

Karen Bassett

For Teresa Marks, Director

Jan 20, 2011

Date

CERTIFICATE OF SERVICE

I hereby certify that a copy of the aforementioned permit has been mailed by first-class mail to Ms. Lisa Rotenberry, 100 Two Pine Drive, North Little Rock, AR 72117.

Certified by Barbara J. Mathews on or before this 20th day of January, 2010

Permit Modification Application Summary and Rationale
Eco-Vista, LLC Class 1 Landfill
Permit No. 0290-S1-R2; AFIN 72-00144
May 2006

Permit Application Summary

This summary form consists of information submitted during the permitting process. It represents basic information from the administrative record utilized in forming recommendations from the Solid Waste Management Division. The entire file for the solid waste permit application specified below should be reviewed for complete details on the proposed facility.

Permit Application Summary	
1. Name of Applicant:	Eco-Vista, LLC
2. Type of Facility:	Class 1 landfill
3. Engineering Firm:	GeoSyntec Consultants & Genesis Environmental Consulting, Inc.
4. Application Date:	Original Application: November 16, 1979 Modification Application Submitted on July 25, 2002.
5. Site Location	Approximately two and one half miles south of Tontitown, Arkansas in Portions of Sections 14 and 23, Township 17 North, Range 31 West, Washington County, Arkansas
6. Permit Area:	Total Property Area: 542 ± acres Permitted Waste Disposal Area: 112 acres
Residences Within 2 Miles:	420 Dwellings located on all sides of the facility
Water Supplies Within 2 Miles:	Approximately 20 based upon Arkansas Geological Commission well log records.
Wetlands:	No wetlands located within the expansion area.
Geology:	<p>The facility is located in the Ozark Plateau physiographic province and on the upper Boone Formation. The Boone Formation is a cherty limestone of Mississippian age with an approximate thickness of 280 feet in northwestern Arkansas. During weathering, the limestone dissolves, leaving a chert and clay residuum at the land surface. This residuum is 20 to 90 feet thick on the landfill property. The Boone Formation rests conformably on the St. Joe Member and together comprise one unit known as the Boone-St. Joe Aquifer. The Boone-St. Joe rests unconformably on the Devonian-aged Chattanooga Shale.</p> <p>Dissolution of limestone in the Boone Formation has created karst terrain in northwest Arkansas. At the landfill facility, a weathering zone termed epikarst is present. This zone is created from the dissolution of limestone leaving a porous chert matrix with high permeability. This zone is an avenue for fast groundwater flow when saturated, fast gas flow when unsaturated, and may store large volumes of recharge water during rain events.</p>

Permit Application Summary	
Soils:	Based on the Washington County Soil Survey prepared by the USDA Soil Conservation Service, soils in the vicinity of landfill belong to the Captina silt loam, Nixa cherty silt loam, Clarksville Cherty Silt Loa, Razort gravelly silt loam, Elsay gravelly soils and Johnsbury silt loam associations.
Ground Water:	<p>The facility is located above the Boone-St. Joe Aquifer which regionally has good water quality.</p> <p>Fast groundwater flow has been documented at the site with ranges of five to several hundred feet per day. The fast flow is thought to occur within epikarst zones. The epikarst is characterized as occurring throughout the entire area as a highly variable continuum, varying significantly in degree of development. Groundwater flow direction at the site is largely northwest to southeast. However, northerly and easterly groundwater flow components have been identified.</p>
Surface Drainage Sequence:	Natural Drainage in the expansion area generally flows to the Southeast. No major streams exist on the property. Drainage from the property eventually flows to Little Wildcat Creek located Southeast of the property.
Waste Streams:	All eligible Class 1 and 4 wastes,
Capacity (consultant estimation):	Total Capacity = 10,490,000 Cubic Yards
Disposal Rate	243,286 tons./year
Projected Active Life after this modification	10 years
Bottom Liner System:	<p>The following alternative bottom liner system configuration has been approved for the North 1 Acre Liner Area</p> <ul style="list-style-type: none"> • A 24-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s • A 60-mil thick high density polyethylene (HDPE) geomembrane • A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filtersheet bonded to both sides of the geonet • A geosynthetic clay liner • A 60-mil thick high density polyethylene (HDPE) geomembrane • A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filtersheet bonded to both sides of the geonet

Permit Application Summary

- A 12-inch thick protective soil cover layer

The alternative bottom and bottom sideslope liner configuration has been approved in conjunction with the Liner System Equivalency Demonstration (Document ID# 28042).

The following bottom liner system configuration is approved for Cells 1-8.

- A 24-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s
- A 60-mil thick textured high density polyethylene (HDPE) geomembrane
- A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet
- A geosynthetic clay liner
- A 60-mil thick textured high density polyethylene (HDPE) geomembrane
- A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet
- A 12-inch thick protective soil cover layer (Cell Floor - hydraulic conductivity of greater than or equal to 1×10^{-3} cm/s, Bottom Sideslopes - hydraulic conductivity of greater than or equal to 1×10^{-5} cm/s.b

The alternative bottom and bottom sideslope liner configuration has been approved in conjunction with the Liner System Equivalency Demonstration (Appendix C10 of Volume 4 of 4, Document ID#30273).

Final Cover:

The following final cover system configuration is approved for Cells 1-8

- A 6-inch Gas Venting Layer consisting of soil with a minimum hydraulic conductivity of 1×10^{-3} cm/s or greater placed directly over the last lift of waste. If an active gas collection system is required and approved for this facility this layer will be replaced by a minimum 12-Inch thick intermediate cover layer.
- A geosynthetic clay liner
- A 40-mil thick textured linear low density polyethylene

Permit Application Summary

(LLDPE) geomembrane

- A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet
- 12-inch Protective Cover Soil Layer
- 6-inch Vegetative Soil Layer

The alternative final cover configuration has been approved in conjunction with the Alternate Final Cover System Equivalency Demonstration (Appendix D6 of Volume 4 of 4, Document ID#30273).

Permit Summary and Rationale

The following information was considered during the preparation of a draft permit for the proposed facility:

Permit Pre-Application submitted on 4/3/2002 and revised on 6/3/2003.

- This major permit modification was completed through a series of documents furnished by the applicant on July 29, 2004 (SWMD# 23797); November 3, 2004 (SWMD# 24718); November 12, 2004 (SWMD# 24818); December 29, 2004 (SWMD# 25407), October 7, 2005 (SWMD# 30273), January 17, 2006 (SWMD# 31841, 31843, 31844, 31845, 31846, 31850), March 3, 2006 (SWMD# 32593), March 22, 2006 (SWMD# 32870, 32871), April 27, 2006 (SWMD# 33577, 33578) and May 8, 2006 (SWMD# 33730).
- Correspondence from the Permittee;
- Minor permit modification application submitted by the applicant on April 23, 2010.

Condition No.	Permit Conditions
1	States the Department has no responsibility for the proper functioning of the disposal facility and the permittee is not exempt from liability to third parties per Regulation 8.
2	Concerns the requirements for construction and operation of the disposal facility in accordance with the approved plans/specifications/operation narrative are in accordance with Sections 22.308, 22.411, and 22.422 of Regulation 22.
3	Concerns requirements to maintain the disposal facility in good operating condition under licensed, qualified, on-site landfill operators is in accordance with Section 22.411 of Regulation 22 and with Regulation 27.
4	Concerns the right of the Department to revoke or modify the permit in the event the facility is no longer in compliance with the Arkansas Solid Waste Management Act, Regulation 22, or other applicable regulations are in accordance with Section 22.308 of Regulation 22.
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8	Concerns the right of Department employees to enter the permittee's property to inspect the facility at any time without interference or delay is in accordance with Section 22.1501 of Regulation 22.
9	Concerns the expiration of the permit. The permit will expire when the facility is filled to permit capacity and closed out in accordance with Regulation 22 and the approved Closure Plan.
10	This permit condition details the approved landfill plans for the facility. Any changes to the plans listed below will require a modification to the facility permit.
10a	This permit condition details the approved plan and design for the leachate forcemain. Any changes to the plans listed will require a modification to the facility permit.
11	This permit condition details the approved waste disposal capacity for the expanded landfill. The volumes are based on the calculations prepared and presented by the applicant.
12	This permit condition establishes the permitted waste disposal boundary. Waste disposal outside this area is not approved.
13	This permit condition outlines the approved bottom configuration for the North 1 Acre Area as previously approved by the Department.
14	This permit condition establishes the approved bottom configuration for Cells 1-8 of the facility. Approval of this alternate configuration was completed in conjunction with the presented Liner Equivalency demonstration.

Condition No.	Permit Conditions
15	This permit condition establishes the approved final cover system for Cells 1-8. Approval of this alternate configuration was completed in conjunction with the presented Final Cover System Equivalency demonstration.
16	This permit condition identifies the approved Hazardous Waste Exclusion Plan for the facility as required by Regulation 22.412.
17	This permit authorizes the use of synthetic tarps as an alternate daily cover. This condition was approved based on the landfills previous success utilizing alternate cover material.
18	This permit condition details the approved Explosive Gas Monitoring System and Plan. As required by Regulation 22.415.
19	This permit condition establishes the approved Operating Plan and Narrative as required by Regulation 22.
20	This permit condition authorizes one (1) active disposal area. A second working face may be approved in writing by the Department for the purpose of disposal of wastes which may be impacted by non-routine activities.
21	Concerns measures to control and prevent stormwater run through or into the active face and requirements for appropriate NPDES permit(s) and a Storm Water Pollution Prevention Plan (SWPPP) is in accordance with Sections 22.418, 22.419 and 22.427 of Regulation 22, and the Clean Water Act.
22	This permit condition establishes the Action Leakage Rate for the facility. The ALR was established based on the calculations prepared and presented by Geosyntec. This condition also establishes the approved contingency plan for the ALR.
23	This permit condition establishes the approved CQA Plan for the facility and requires review and approval of construction documents prior to all construction events.
24	This permit establishes the approved Closure and Post Closure Care Plan for the facility as required by Regulation 22.1301-22.1302.
25	Specifies the initial amount of financial assurance. (Regulations 22.1402 and 22.1403).
26	This permit condition requires the double lining of the leachate sumps and leachate collection trenches.
27	This permit condition the monitoring of the quantity of fluid in the leachate sumps, leak detection sumps and leachate storage tanks.
28	This permit condition requires the analytical testing and reporting of the leachate collection and leak detection system.
29	A groundwater monitoring system shall be established and maintained at the Tontitown Class I landfill that consists of a sufficient number of wells or sampling points, installed at appropriate locations and depths that will yield representative samples of groundwater quality (per Reg.22.1202). The monitoring system shall be installed, operated and maintained in accordance with the approved design specifications throughout the active life of the facility and throughout the post-closure care period (per Reg.22.1201(d) and Reg 22.1302(b)).
30	All groundwater monitoring at the site as described in this Permit, the Groundwater Sampling and Analysis Plan (GWSAP) and Corrective Action Monitoring Program will follow the <u>standard</u> provisions within Regulation 22 except for the variances listed. This condition is to clarify that the standard provisions of Regulation 22 were intended to be followed except for the variances listed. Due to the length and complexity of the plans, there may be items that differ from Regulation 22 standard provisions – these differences are unintentional and the standard provisions of Regulation

Condition No.	Permit Conditions
	22 should be followed.
31	List of the 23 wells currently part of the groundwater monitoring system. Modification of the groundwater monitoring system will follow Regulation 22. Wells LGW-11, LGW-12, and LGW-13 will be decommissioned as the landfill cells at the well locations are built. However, monitoring wells LGW-4, LGW-5, LGW-7, and MW-7N should be monitored during active life of the facility and throughout the post-closure care period. Significant effort will be required to repair these four wells if they are damaged. These four wells had "positive" or "likely" dye traces during the 2005 dye study and were found to be screened within preferential groundwater flow zones. This may require significant excavation around the well to replace/repair the well casing, use of drilling rigs to help clear the inside of the well, or any other means needed to repair the wells. The facility must obtain permission from the SWMD to install, decommission, replace, repair, or otherwise alter monitoring wells per Reg.22.1103(f) and 1202(c).
32	Requires Monthly Indicator Parameter sampling. Per Reg.22.1204(b)(1) and Reg.22.1205(c), the Director may specify an alternate frequency for sampling and analysis. The increase frequency required is based on the high groundwater flow rates (5 to several hundred feet per day) documented at the site during dye testing. Requires Quarterly Sampling – per Reg.22.1204(b) for landfills within the Boone-St. Joe outcrop area. Decreased well sampling during the 2 nd and 4 th quarters are included due to the increased Monthly Indicator Parameter sampling in Condition 4a. Requires full Appendix 2 sampling during Assessment Monitoring and Corrective Action per Reg.22.1205 and Reg.22.1206. This condition requires full Appendix 2 sampling for wells which had an exceedance of the GWPS during the previous calendar year and all wells every 3 years. This is a decrease in the standard Regulation 22 Appendix 2 sampling which is normally performed annually during Assessment Monitoring or Corrective Action per Reg.22.1205(b). Requires Corrective Action Sampling per an SWMD approved Corrective Action Monitoring Program while the facility is in Corrective Action Status per Reg.22.1208.
33	Requires creation of a background groundwater quality data set for use in statistical analysis. The background data set will be from wells confirmed to be unaffected by leakage (including landfill gas) from the unit. This requirement is from Reg.22.1202(a)(1) and Reg.22.1203(e). Requires the facility to determine if a Statistically Significant Increase (SSI) has occurred based on results of the most recent sampling event during detection monitoring per Reg.22.1204(c). To assist in characterizing the groundwater at the site and per Reg.22.1203(k), SSIs will be determined at each well even if the facility is in assessment or corrective action status.
34	Requires a Monthly Indicator Parameters Report that presents the monthly groundwater quality indicator data collected and daily data from the leak detection system and the leachate collection system. The increased sampling is in Condition 4a per Reg.22.1204(b)(1) and Reg.22.1205(c). Requires discussion of monthly indicator data, and the corrective action sampling within the regular Groundwater Monitoring Reports (GWMR). Also requires analytical results from the leak detection system and leachate collection system to be included in the GWMR. Other contents of the GWMR are discussed in Reg.22.1203(k).
35	Concerns the requirements for the permittee to comply with Regulation 22 or permit conditions in the event of a conflict between them and representations in the permit application documents is in accordance with Section 22.308 of Regulation 22.
36	This condition refers to the director's decision to authorize the facility to proceed with expansions of the facility up to the districts need. This amount was estimated at 10,000,000 million additional cubic yards prior to this modification.
37	Concerns providing notice for the purpose of appeal of the final permit in accordance with Section 22.306 of Regulation 22 and in accordance with Regulation 8. Provisions regarding severability are in accordance with Section 22.1601 of Regulation 22.