STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. 08004500 (LTF #97513, PLACE ID 845)
CERBAT LANDFILL SEPTAGE EVAPORATION PONDS

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2, and 3; Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2; A A.C. Title 18, Chapter 11, Article 4; and amendments thereto; and the conditions set forth in this permit, Mohave County, Department of Public Works, is hereby authorized to operate the septage ponds at the Cerbat Landfill facility, located at 7300 North Mineral Park Road, Golden Valley, Arizona, over groundwater of the Sacramento Valley Drainage Basin in the southwest quarter of Section 35, Township 23 North, Range 18 West of the Gila and Salt River Base and Meridian.

This permit becomes effective on the date of the Waste Program Division Director's signature and shall be valid for the life of the facility (closure and post-closure care periods), unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate, and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below, or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant, and as determined at the applicable POC, occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name:	Cerbat Landfill Septage Evaporation Ponds
Facility Address:	7300 North Mineral Park Road, Golden Valley, AZ 86413
Permittee as Owner:	Mohave County, Department of Public Works
Mailing Address:	P.O. Box 7000, Kingman, AZ 86402
Permittee as Operator:	Gambi 360, LLC
Mailing Address:	P.O. Box 3418, Kingman, AZ 86402
Latitude / Longitude:	35° 20' 06″ North 114° 10′ 28″ West

1.2 AUTHORIZING SIGNATURE

_____

Laura L. Malone, Director
Waste Programs Division
Arizona Department of Environmental Quality

Signed this _____day of _____, 2023

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(A)(4), 49-241(A)]

This Aquifer Protection Permit (APP) number 08004500 is issued to allow Mohave County to construct two additional septage evaporation ponds (Ponds D and E) at the Cerbat landfill facility. The permit amendment application is dated January 15, 2023, and prepared by Stantec Consulting Services Inc. In response to ADEQ review comments, additional information was supplied by the Stantec Consulting Services Inc. on March 16, 2023 and March 25, 2023.

Previous Type "Other" Amendment Approval (12/06/2012)

This APP issued to recognize Gambi 360, LLC as the new landfill operator, in accordance with the *Aquifer Protection Permit Amendment Application, Cerbat Municipal Solid Waste Landfill – Permit Amendments*, prepared by Gambi 360, LLC, dated September 14, 2021. This APP also incorporates the replacement of upgradient well, MW-5, with MW-2B and modification to the Groundwater Monitoring System, in accordance with the *Groundwater and Methane Monitoring Report, First Biannual 2021* (GMM), prepared by Stantec, dated May 10, 2021.

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The site includes the following permitted discharging facility:

Facility	Latitude	Longitude
Septage Evaporation Ponds		
Pond A	35° 20' 06" North	114° 10' 28" West
Pond B	35° 20' 03" North	114° 10' 28" West
Pond C	35° 20' 00" North	114° 10' 28" West
Pond D	35° 20' 3.89" North	114° 10' 33.38" West
Pond E	35° 20' 0.20" North	114° 10' 33.36" West

Ponds A, B and C each have a design capacity of approximately 600,000 gallons. The total area of the three (3) ponds comprises approximately four (4) acres at the Cerbat Landfill facility.
Ponds D has a design capacity of 3,600,000 gallons and Pond E has a design capacity of 3,300,000 gallons. The total area of the two (2) ponds comprises approximately 10.5 acres at the Cerbat Landfill facility.

2.1.1 Annual Registration and Disposal Fees [A.R.S. §§ 49-747, 49-836]

The annual registration fee for this permit is established by A.R.S. § 49-242 and is payable to ADEQ each year. The annual registration fee will be based on the total daily influent as prescribed by A.R.S. § 49-242(E).

A separate registration fee is required for each pond. Any liquids that are disposed of in the ponds are subject to disposal fees in accordance with A.R.S. § 49-836.

The average daily septage volume accepted at Cerbat evaporation ponds is 35,000 gallons per day (gpd) with a maximum total volume 8,700,000 gallons. The annual registration fees will be based on the volume of 35,000 gpd of influent as prescribed by A.A.C. R18-14-104, Table 2. The fees are payable to ADEQ each year.

2.1.2 Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee must demonstrate financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility including closure and post-closure care (if required) of the facility.

The estimated closure and post-closure cost for Septage Ponds A through E as of March 31, 2023, is $1,472,782.00 ($739,657.00 for closure and $733,125.00 for post-closure costs) per evaporation pond.

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The permittee is authorized to construct and operate Ponds A, B, C, D, and E. The ponds are approved to receive liquid sludge from residential septic tanks and municipal wastewater treatment plants.

The ponds A, B, and C have been constructed with a double-liner system consisting of the following (from bottom to top):

1. prepared subgrade,
2. geosynthetic clay liner (GCL),
3. double-texture, 60-mil high density polyethylene (HDPE) liner,
4. 16-ounce/yd^2 non-woven geotextile protective layer, and
5. 2-foot protective layer of gravelly sand or drainage rock.

The Ponds D, and E liner system includes the following:

1. Geosynthetic Clay Liner (GCL) on a smooth rolled foundation,
2. 60-mil high density polyethylene (HDPE) double textured layer,
3. 200-mil Geonet liner,
4. 80-mil HDPE conductive double textured geomembrane (primary liner),
5. No heavy equipment is allowed on Ponds D and E. Otherwise 2-foot protective layer of gravelly sand or drainage rock is required, and
6. Leak Detection System

   Ponds D, and E shall be lined with a dual 60-mil and 80-mil HDPE double-textured liner system with a geonet liner placed between the HDPE geomembrane liners to provide leak detection. The subgrade soil shall consist of a minimum of six inches of native soil compacted to a minimum of 90% of the maximum dry density in accordance with ASTM D1557. A leak detection sump shall be constructed above the 60-mil HDPE (secondary liner) with a perforated or machine-slotted 12-inch nominal diameter HDPE pipe with a riser on the side slope of the trench to allow access to the sump. A 3/8-inch gravel shall be placed around the perforated pipe to allow for liquid to drain through the leak detection system to the collection sump.

2.2.1 Engineering Design

1. The double-liner system shall meet the following engineering design specifications:

    a. The GCL liner shall consist of natural sodium bentonite clay with an average permeability of 5×10^{-9} centimeters/second, and a minimum bentonite mass per unit area of 0.75 lbs/ft^2.

    b. The HDPE liners shall be 60-mil and 80 mil, textured at the top and at the bottom, and meet applicable ASTM standards.

    c. The geotextile protective layer shall be non-woven, 16-ounce/yd^2 with a thickness of 155 mil, and meet applicable ASTM standards.

    d. 200-mil Geonet liner with minimum transmissivity of 2×10^{-3} m^2/sec.

2. Final closure of the septage ponds shall be in accordance with Section 2.9 and the *Permit Application for Septage Evaporation Ponds for Cerbat Landfill*, and subsequent documents referenced in Section 5.0 of this APP.

2.2.2 Site-Specific Characteristics

Not applicable.

2.2.3 Pre-Operational Requirements

The permittee shall submit the construction certification, as described in Section 2.2.5 of this permit, for the new evaporation ponds prior to the beginning of operation.

2.2.4 Operational Requirements

1. The facility shall be operated and maintained in a manner that will protect public health, safety, and the environment as set forth in the *Permit Application for Septage Evaporation Ponds for Cerbat Landfill*, and subsequent documents referenced in Section 5.0 of this APP. This includes maintenance of the structures, equipment, employee training, controlling facility access, posting appropriate signage, implementing health and safety programs, regular updates of the safety programs, groundwater monitoring, and recordkeeping. If any damage is identified during an inspection that could cause or contribute to a discharge, proper repairs shall be performed promptly as referenced in Section 4.3.

2. The evaporation ponds are designed for the collection and drying of liquid sludge from residential septic tanks and municipal wastewater treatment plants. Dried septage shall be excavated and disposed of into the active landfill.

3. A freeboard height of two (2) feet shall be maintained to manage the 100-year, 24-hour storm event under normal operation conditions.

4. Regular maintenance of the berms shall be conducted to correct any soil erosion from stormwater as referenced in Section 4.3 of this APP.

5. The permittee shall provide and maintain financial assurance for the costs associated with operation, closure, and post-closure care (if required) in accordance with Section 2.1.2 of this APP.

2.2.5 Construction Requirements

A third-party Arizona registered professional engineer (QAE) shall be responsible for construction quality assurance (CQA) and construction quality control (CQC) procedures for any construction. The QAE shall be responsible for inspecting, collecting, interpreting and reporting field and laboratory results.

The QAE shall certify that all construction, including excavation, soil segregation, subgrade preparation, and any other construction or installation work, is performed according to the approved plans, manufacturer's specifications, engineering testing standards and/or federal, state or local regulations that may apply to the work.

The permittee shall submit the construction certification to ADEQ, and receive approval from the ADEQ Solid Waste Unit prior to beginning operation of the ponds.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243, and A.A.C. R18-9-A205(B)]

Discharges shall be controlled by the double-liner system and LCRS sump. No discharge limits are set in this APP.

2.4 Point of Compliance (POC) [A.R.S. § 49-244]

The points of compliance are established by the following monitoring well locations:

Location	Latitude	Longitude
MW-1	35° 19′ 56.93″ North	114° 10′ 57.98″ West
MW-2B	35° 20′ 24.42″ North	114° 10′ 24.90″ West
L-4	35° 19′ 54.21″ North	114° 10′ 43.32″ West

The locations of groundwater monitoring wells MW-2B (up-gradient), MW-1 (down-gradient) and L-4 (down-gradient) are shown in Figure 2, *Site Location Map with Wellhead Locations and Groundwater Elevation Contours, 1st Biannual 2021*, dated April 2021, of the GMM. The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1) and (K)(6), A.A.C. R18-9-A206 and R18-9-A209(C)]

The permittee shall continue all monitoring required in this permit for the duration of the permit, regardless of the status of the facility. All sampling, preservation, and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained; and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and Title 40 of the Code of Federal Regulations (40 CFR) Part 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

The following information associated with each sample, inspection, or measurement should be included in the monitoring records:

1. Name of each individual who performed the sampling, inspection, or measurement;
2. Date, time, and exact location of sampling, inspection, or measurement;
3. Date on which the sampling analysis was completed;
4. Name of each individual and laboratory that performed the analysis;
5. Analytical techniques or methods used to perform the sampling and analysis; laboratory detection limit for each test method performed, and analytical variance for each parameter analyzed;
6. Chain of custody records; and
7. Any field notes relating to information described in items 1 through 6, above.

2.5.1 Discharge Monitoring

Not Applicable.

2.5.2 Facility / Operational Inspections

1. The ponds shall be visually inspected in accordance with Table 4.3.1. Visual inspections shall be documented and kept in the facility file. A record of these inspections shall be kept in the facility file for ten (10) years from the date of each inspection. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

2. Any damage to the liner system shall be repaired promptly. All repair procedures and materials used shall be documented. A record of these repairs shall be kept in the facility file for ten (10) years from the date of each repair. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

3. The perimeter fence shall be repaired and replaced as necessary. Gate shall remain locked during non-business hours. All signage shall be maintained.

4. LCRS Sumps

Monitoring the evaporation pond LCRS sumps shall be performed on a weekly basis. Any fluid detected shall be pumped out, quantified, and properly contained if there is sufficient fluid to pump. The action leakage rate is 300 gpd per pond.

In the event the action leakage rate is exceeded, the permittee shall take the following actions:

a Within thirty (30) days of the action leakage rate being exceeded in the LCRS sump, submit a Response Action Plan to the ADEQ Solid Waste Unit for approval that includes, at a minimum:

1. A characterization of the reason for the action leakage rate exceedance in the LCRS sump.
2. An assessment of the condition of the liner system including a determination to the extent practicable of the location, size and cause of any leaks.
3. An assessment to determine if migration of fluids from the LCRS sump has occurred.
4. A review of potential release responses and their effectiveness. The review must include a determination of whether receipt of the liquids should be curtailed; whether liquid should be removed for liner inspection, repairs or controls; and whether or not alternative disposal methods are required.
5. Recommendations for long-term and short-term responses.
6. The permittee shall operate, inspect, and maintain the evaporation ponds, the associated components, and the drainage structures, such as a pipe or berm to ensure there is no discharge of pollutants.
7. A freeboard height of two (2) feet shall be maintained to manage the 100-year, 24-hour storm event under normal operation conditions.
8. The permittee shall inspect the geomembrane in the evaporation ponds on a monthly basis and after every wind or rain event during the operational lifetime of the Cerbat landfill.

5. Closure/Post-Closure

In accordance with A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3), a permit amendment for the closure/post-closure plan shall be submitted to ADEQ within 90 days following notification of intent to cease pond operations. The permit amendment must be approved by the ADEQ prior to any closure activities.

Post-closure monitoring and maintenance will not be necessary if ADEQ Solid Waste Unit determines that the proposed closure activities are adequate and subsequent sampling results meet the criteria for clean closure approval. If clean closure is not approved, post-closure monitoring may be required and will consist of periodic inspection and maintenance of any closure caps or other structures as set forth in Section 2.10.

2.5.3 Groundwater Monitoring and Sampling Protocols

1. Routine groundwater monitoring shall be conducted semiannually in MW-1, MW-2B and L-4.

2. Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three (3) borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after twenty four (24) hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the monitoring report.

   Alternatively, the permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature and conductivity.

2.5.3.1 POC Well Replacement

In the event that a designated POC well should become unusable or inaccessible due to damage or any other event, the well shall be repaired, or if not repairable, a replacement POC well shall be constructed and installed upon approval by ADEQ.

2.5.4 Surface Water Monitoring and Sampling Protocols

Not applicable.

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory

limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, Arizona 85007-3231
Phone Number: (602) 364-0720

2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative groundwater samples can be collected. If new groundwater monitoring wells are determined to be necessary, the construction details shall be submitted to the ADEQ Solid Waste Unit for approval prior to installation, and the permit shall be amended to include any new monitoring points.

2.6 Contingency Plan Requirements [A.R.S. § 49-243(K)(3), (K)(7), and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Considerations

At least one copy of the approved contingency and emergency response plan(s) submitted in the application referenced in Section 5.0 shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

If there is a statistically significant increase over background for one or more of the groundwater constituents listed in 40 CFR 258, Appendix I, or an alternative list approved in accordance with 40 CFR § 258.54(a)(2) in any compliance monitoring well, the Owner/Operator shall do the following:

1. Within fourteen (14) calendar days of this finding, place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels, and notify ADEQ that this notice was placed in the operating record.

2. Within ninety (90) calendar days of this finding, establish an assessment monitoring program meeting the requirements of 40 CFR § 258.55 except as provided for in 40 CFR § 258.54(c)(3).

The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and

the permittee shall presume the initial sampling result to be confirmed as verification sampling has been conducted.

2.6.2 Exceeding of Alert Levels

2.6.2.1 Exceeding of Alert Levels Set for Operational Conditions

Not applicable.

2.6.2.2 Exceeding of Alert Levels Set for Discharge Monitoring

Not applicable.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

Not Applicable.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

Not applicable.

2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not applicable.

2.6.3 Discharge Limitations (DL) Violations

Not applicable.

2.6.4 Aquifer Quality Limit (AQL) Violation

Not applicable.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges [A.R.S. §§ 49-201(12), 49-241]

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances [A.R.S. § 49-201(18)] or toxic pollutants [A.R.S. § 49-243(I)] on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Emergency Response Unit at (602) 771-2300 and the ADEQ Solid Waste Unit within twenty-four (24) hours upon discovering the discharge of hazardous material that could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of nonhazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Solid Waste Unit within twenty-four (24) hours upon discovering the discharge of non-hazardous material that could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the ADEQ Solid Waste Unit within thirty (30) days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, facility response activities, and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6, and actions identified in the approved contingency plan referenced in Section 5.0 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the ADEQ Solid Waste Unit prior to implementing a corrective action to accomplish any of the following goals in response to permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;

4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within thirty (30) days of completion of any corrective action, the permittee shall submit to the ADEQ Solid Waste Unit a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2), and A.A.C. R18-9-A206(B), and R18-9-A207]

2.7.1 Self -Monitoring Report Forms (SMRF)

Not applicable.

2.7.2 Operation Inspection / Operating Record

A signed copy of this APP shall be maintained at all times at the location where decisions regarding the operation of the facility are made. An operating record (paper copies, forms or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where decisions are made regarding the operation of the facility. Facility inspections shall be conducted in accordance with Table 4.3.1 of this permit. The operating record shall be retained for ten (10) years from the date of each inspection and, upon request, the permit and the operating record shall be made immediately available for review by ADEQ personnel. The information in the operating record shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and time inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed; including all repair procedures and materials used;
5. Documentation of date and time for any sampling;
6. Any other information required by this permit to be entered in the operating record; and
7. Monitoring records for samples shall comply with R18-9-A206(B)(2) and R18-9-A209(C).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the ADEQ Solid Waste Unit in writing within five (5) days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition.

2. The permittee shall submit a written report to the ADEQ Solid Waste Unit within thirty (30) days of becoming aware of the violation of any permit condition. The report shall document all of the following:

a. Identification and description of the permit condition for which there has been a violation and a description of its cause;

b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;

c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;

d. Any monitoring activity or other information that indicates that any pollutants would be reasonably expected to cause a violation of an AWQS if a discharge occurred;

e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and

f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other, or Miscellaneous Reporting

2.7.4.1 Reporting of Groundwater Monitoring and Facility Inspections

1. Semiannual groundwater monitoring of monitoring wells MW-1, MW-2B and L-4 shall be reported to ADEQ Solid Waste Unit semiannually with report deadlines as set forth in Section 2.7.6.

2. At least quarterly and after every significant rain event, the pond's liner system, surface water drainage structures and erosion control features shall be inspected. A significant rain event shall be defined as 0.50 inches or greater of precipitation within a 24-hour period. All damage to wells, drainage structures, etc. shall be recorded so that it can be properly repaired promptly and by the next inspection date as required in Table 4.3.1. Facility inspection reports covering events shall be kept in a facility file.

2.7.5 Reporting Location

All documents required by this permit to be submitted to the ADEQ Solid Waste Unit shall either be directed to:

Arizona Department of Environmental Quality
Waste Programs Division
Solid Waste Unit
1110 W. Washington Street
Phoenix, AZ 85007
Phone: (602) 771-4110, or emailed to:

Solidwaste@azdeq.gov.

2.7.6 Reporting Deadlines

2.7.6.1 The following table lists the report due dates during the operational period for semiannual groundwater monitoring events during the first and third quarters:

Semiannual Monitoring conducted during quarter ending:	**Report due by:**
March 31 (1st Quarter)	April 30
September 30 (3rd Quarter)	October 31

2.7.6.2 Groundwater monitoring reports for the closure/post closure period shall be submitted annually and shall be received by January 31 of each year reporting on the semiannual events of the prior year unless otherwise specified in this permit.

2.7.6.3 Reports on any repairs shall be submitted annually and shall be received by January 31 of each year reporting on repair events of the prior year.

2.7.7 Changes to Facility Information in Section 1.1

The ADEQ Solid Waste Unit shall be notified within ten (10) days of any change of facility information including the facility name, permittee as owner or operator, mailing address, facility/emergency contact person, or contact telephone numbers.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the ADEQ Solid Waste Unit before ceasing operation of the facility for a period of sixty (60) days or greater.

At the time of notification, the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the ADEQ Solid Waste Unit of the operational status of the facility every three (3) years. When the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252, and A.A.C. R18-9-A209(B)]

The permittee shall give written notice of closure to the ADEQ Solid Waste Unit of the permittee's intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within ninety (90) days following notification of closure, the permittee shall submit an application for a revised closure plan as an "other"-type APP amendment that meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3)(a). The application must describe any changes to the original closure strategy submitted in the *Permit Application for Septage Evaporation Ponds for Cerbat Landfill*, and subsequent documents, as referenced in Section 5.0.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the ADEQ Solid Waste Unit indicating that the approved Closure Plan has been implemented fully, and providing supporting documentation to demonstrate that closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). The permittee shall submit a CQA/CQC report, sealed by an independent Arizona registered professional engineer, verifying that closure has been completed in accordance with the *Permit Application for Septage Evaporation Ponds for Cerbat Landfill* and all updates in the revised closure plan required under Section 2.9.1. If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If clean closure has not been achieved, the permittee shall follow the terms of post-closure stated in this permit.

2.10 Post-Closure [A.R.S. §§ 49-243(K)(6), 49-252, and A.A.C. R18-9-A209(C)]

2.10.1 Post-Closure Plan

If clean closure has not been achieved, the permittee shall submit an application for a post-closure plan as an "other"-type APP amendment that includes all monitoring and maintenance activities as outlined in A.A.C. R18-9-A209(C)(1). The post-closure plan shall ensure that any reasonable probability of future discharge from the facility is eliminated to the greatest extent practicable.

An approved post-closure care program shall be provided for thirty (30) years from the date of final closure acknowledgment by ADEQ, and shall consist of:

1. Maintaining the integrity and effectiveness of any remaining pond structures.
2. Maintaining and operating groundwater monitoring wells.
3. Controlling public access to the closed ponds by maintaining signs and fences.
4. Complying with the recordkeeping requirements specified in Section 2.7.
5. Providing and maintaining financial assurance for the costs associated with post-closure maintenance and any necessary corrective action as a result of known releases from the ponds in accordance with Sections 2.1.2 and 6.5.

2.10.2 Post-Closure Completion

The permittee shall notify ADEQ in writing within thirty (30) calendar days of completion of all post-closure care activities. The written notice shall include a certification, sealed by an independent Arizona registered professional engineer hired by the permittee, verifying that post-closure care has been completed in accordance with the approved post-closure care plan.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

No	Description	Due by	Amend. Required
1	The Permittee shall submit a demonstration that the financial assurance mechanism listed in Section 2.1.2, Financial Capability, is being maintained as per A.R.S. 49-243.N.4 and A.A.C. R18-9-A203(H) for all estimated closure and post-closure costs including updated costs submitted under Section 3.0, No. 2 below. The demonstration shall include a statement that the closure and post-closure strategy has not changed, the discharging facilities listed in the permit have not been altered in a manner that would affect the closure and post-closure costs, and discharging facilities have not been added. The demonstration shall also include information in support of a performance surety bond as required in A.A.C. R18-9-A203(C)(2).	December 31, 2023 and every 6 years thereafter.	Yes
2	The Permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201(B)(5) and A.R.S. 49-243.N.2.a.	December 31, 2023 and every 6 years thereafter.	Yes

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 GROUNDWATER MONITORING

a. In accordance with 40 CFR § 258.51(a), the Owner/Operator shall operate a groundwater monitoring system that consists of a sufficient number of wells, installed at appropriate locations, and depths, to yield groundwater samples from the uppermost aquifer.

b. Groundwater monitoring shall be conducted on a semiannual basis in accordance with 40 CFR §§ 258.50 through 55, in the up-gradient monitoring well MW-2B and in down-gradient monitoring wells MW-1 and L-4.

TABLE 4.1.1 SAMPLING LOCATIONS

Well Number	Latitude	Longitude	Location	Depth to Water
MW-1	35° 19′ 56.93″ N	114° 10′ 57.98″ W	Down-gradient	86.24 ft 9/29/20
MW-2B	35° 20′ 24.42″ N	114° 10′ 24.90″ W	Up-gradient	36.53 ft 9/29/20
L-4	35° 19′ 54.21″ N	114° 10′ 43.32″ W	Down-gradient	53.65 ft 9/29/20

c. Monitoring equipment required by this APP shall be installed and maintained so that representative groundwater samples can be collected. Should a new groundwater well(s) be determined to be necessary, a well installation plan shall be submitted within sixty (60) days to the ADEQ Solid Waste Unit for approval as a Type Other modification. Upon installation of the well, the construction details, including the latitude and longitude, shall also be submitted to the ADEQ Solid Waste Unit.

d. At a minimum, the groundwater monitoring system must comply with the following:

1. An upgradient groundwater monitoring well that represents the quality of background groundwater that has not been affected by leakage from the landfill. A determination of background quality may include sampling of wells that are hydraulically upgradient of the waste management area.

2. A sufficient number of downgradient groundwater monitoring wells representing the quality of groundwater passing the relevant point of compliance specified by ADEQ as in accordance with 40 CFR § 258.40(d), to detect groundwater contamination in the uppermost aquifer. When physical obstacles preclude installation of groundwater monitoring well(s) at the relevant point of compliance the downgradient monitoring system may be installed at the closest practicable distance hydraulically downgradient from the relevant point of compliance that will ensure detection of groundwater contamination in the uppermost aquifer.

3. Pursuant to 40 CFR § 258.51(c), monitoring wells must be cased in a manner that maintains the integrity of the monitoring well borehole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (i.e., the space between the borehole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

4. Prior to commission, the Owner/Operator must submit installation reports and as-built drawings to ADEQ for each monitoring well that is completed.

5. Pursuant to 40 CFR § 258.53(a), the groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells installed in compliance with 40 CFR § 258.51(a).

i. The program must include procedures and techniques for:

a) Sample collection;
b) Sample preservation and shipment;
c) Analytical procedures;
d) Chain of custody control; and
e) Quality assurance and quality control.

ii. The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples.

iii. Groundwater samples shall not be field-filtered prior to laboratory analysis.

iv. The sampling procedures and frequency must be protective of human health and the environment.

6. Pursuant to 40 CFR § 258.53(d), groundwater elevations must be measured in each well immediately prior to purging, each time groundwater is sampled. The Owner/Operator must determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells that monitor the same waste management area must be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction.

7. Pursuant to 40 CFR § 258.53(e), the Owner/Operator must establish background groundwater quality in a hydraulically upgradient or background well(s) for each monitoring parameters or constituents in Appendix I to 40 CFR Part 258 or an alternative list approved by the Director in accordance with 40 CFR § 258.54(a)(2). Background groundwater quality may be established at wells that are not located hydraulically upgradient from the Landfill Septage Evaporation Ponds (LFSEP) unit if it meets the requirements of 40 CFR § 258.51(a)(1).

8. Pursuant to 40 CFR § 258.53(f), the number of samples collected to establish groundwater quality data must be consistent with the appropriate statistical procedures determined in accordance with 40 CFR § 258.53(g). The sampling procedures shall be those specified under 40 CFR § 258.54(b) for detection monitoring, 40 CFR § 258.55(b) and (d) for assessment monitoring and 40 CFR § 258.56(b) of corrective action.

9. In accordance with 40 CFR§ 258.54(a), detection monitoring is required at all groundwater monitoring wells defined under 40 CFR §§ 258.51(a)(1) and 258.51(a)(2). At a minimum, a detection monitoring program must include the monitoring for the constituents listed in Appendix I to 40 CFR Part 258 or in the alternative list approved. In accordance with 40 CFR§ 258.54(b), the monitoring frequency for all constituents listed in Appendix I to Part 258 or in the alternative list approved in accordance with 40 CFR § 258.54 (a)(2), shall be at least semiannual during active life of the facility (including closure) and the post-closure care period.

10. In accordance with 40 CFR § 258.54(c), if the Owner/Operator determines, pursuant to 40 CFR § 258.53(g), that there is a statistically significant increase

over background for one or more of the constituents listed in Appendix I to 40 CFR Part 258 or in the alternative list approved in accordance with 40 CFR § 258.54 (a)(2), at any monitoring well at the boundary specified under 40 CFR § 258.51(a)(2), the Owner/Operator must:

i. Within fourteen (14) days of this finding, place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels notify ADEQ; and

ii.Establish an assessment monitoring program meeting requirements of 40 CFR § 258.55 within ninety (90) days except as provided in 40 CFR § 258.54(c)(3)

11. The Owner/Operator may demonstrate that a source other than a LFSEP unit caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration must be certified by a qualified groundwater scientist, approved by the ADEQ Director and placed in the operating record. If a successful demonstration is made and documented, the Owner/Operator may continue detection monitoring as specified in 40 CFR § 258.54. If after ninety (90) days, a successful demonstration is not made, the Owner/Operator must initiate an assessment monitoring program as required in 40 CFR § 258.55.

12. Pursuant to 40 CFR § 258.56(a), if a statistically significant increase in one or more compounds is detected and confirmed by assessment monitoring, within ninety (90) days the Owner/Operator must initiate an assessment of corrective measures as described in 40 CFR § 258.56(c). Any necessary remedy selection and implementation of the resulting corrective action program must comply with 40 CFR §§ 258.57 and 258.58 criteria.

4.2 SEPTAGE WATER SAMPLING

Septage water sampling shall be conducted on a semiannual basis in accordance with Aquifer Protection Permit Amendment - Addition of Two Septage Evaporation Ponds, Attachment 16, sampling and analysis plan dated March 25, 2023. Septage sampling results shall be submitted to ADEQ as part of the semiannual groundwater monitoring report.

4.3 COMPLIANCE MONITORING

TABLE 4.3.1 FACILITY INSPECTIONS

Parameter	Performance Level	Inspection Frequency [1]
1. Accumulation of sediment/ sludge in bottom of ponds	Must be less than free-board level. No signs of debris or litter.	Daily
2. Operating area ponding due to rainfall event	Operating area shall be graded to minimize the amount of standing water.	After each significant rain event[1].
3. Berm integrity	No visible erosion or other	Monthly and also after each

Parameter	Performance Level	Inspection Frequency [1]
	damage.	significant rain event[1].
4. Storm water management structures	No obstructions or visible erosion that would affect the integrity of the structure.	Monthly and also after each significant rain event[1].
5. Liner systems	No visible damage or displacement.	Annually, and also after each significant rain event[1].
6. Groundwater monitoring well integrity and operability	No visible evidence of damage or loss of operability.	Semiannually
7. Pond covered with a protective layer consisting of a minimum of 2 feet of gravelly sand or drainage rock	Material shall be added to the protective layer on an as-needed basis to maintain the minimum required thickness.	Visual inspection shall occur after each sludge removal event. Actual depth shall be measured at least once every 4 years.
LCRS Sumps	The action leakage rate is 300 gpd per pond.	Weekly

[1] A significant rain event shall be defined as at least 0.50 inches of precipitation within a 24-hour period.

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

04/22/2006 *Permit Application for Septage Evaporation Ponds, Cerbat Landfill*, by SECOR International, Inc.

08/18/2006 *Proposed Closure Options of Evaporation Septage Ponds, Cerbat Landfill,* letter by Mohave County Public Works

11/10/2006 Issuance of *Aquifer Protection Permit No. 08004500.06A*, approval to construct and operate three (3) double-lined septage evaporation ponds

06/29/2009 *Aquifer Protection Permit Amendment (APP No. 08004500-06A) and Groundwater and Methane Monitoring Report*, by Stantec Consulting Corporation

05/25/2010 Issuance of *Aquifer Protection Permit No. 08004500.07A*, incorporating alert levels for point of compliance wells MW-1, MW-5 and L-4

12/06/2021 Issuance of *Aquifer Protection Permit No. 08004500*, incorporating a change of operator from Gambi Disposal, Inc. to Gambi 360, LLC and modification to the Groundwater Monitoring System

Current Issuance of Aquifer Protection Permit No. 08004500, approval to construct and operate two additional septage evaporation ponds

6.0 GENERAL CONDITIONS AND RESPONSIBILITIES

6.1 Annual Registration Fees. [A.R.S. §§ 49-747(c)(7), 49-836]

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ as referenced in Section 2.1.1 of this permit.

6.2 Duty to Comply. [A.R.S. §§ 49-221 through 49-263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2, and 3 of the Arizona Revised Statutes and Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to provide information. [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information that the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards. [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an aquifer water quality standard at an applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability. [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application pursuant to A.A.C. R18-9-A203(D) shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement. [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records. [A.R.S. §§ 49-243(K)(8) and A.A.C. R18-9-A206 and A209(C)]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit and with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry. [A.R.S. §§ 49-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. **§§** 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify. [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices specified by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension & Revocation. [A.R.S. §§ 49- through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the ADEQ Solid Waste Unit in writing within fifteen (15) days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information. [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability. [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer.

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer will be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

END OF AQUIFER PROTECTION PERMIT NO. 08004500

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