**GUIDANCE**

**for Louisiana Solid Waste Permit Application for Type I/Type II Landfills**

**Introduction**

This *Guidance* document has been prepared by the Louisiana Department of Environmental Quality (LDEQ) to assist the permit applicant in completing the Louisiana Solid Waste Permit Application for Type I/Type II Landfills. It should be consulted and utilized prior to providing responses to the information required to be contained in the application.

The Louisiana Solid Waste Permit Application for Type I/Type II Landfills provides information to the LDEQ Waste Permits Division to be used along with other information in making a decision on the permit application. Additionally, the information provided in the application is used by the DEQ to assess potential pollution from a proposed facility or modification and the measures that will be used to control the pollution. The measures used for pollution control must meet all applicable laws and regulations.

Authority to request this information is contained in the Louisiana Administrative Code, Title 33. Copies of this regulation are available from the LDEQ Regulation Development and Remediation Section of the **Legal Division** or on the LDEQ website at: <http://www.deq.louisiana.gov/portal/Default.aspx?tabid=1674>.

**Scope**

The Louisiana Solid Waste Permit Application for Type I/Type II Landfills form is intended to apply to a single geographical location of a facility. Facilities in geographically dispersed locations should be treated separately for the purpose of determining when to submit an application. Submit a separate application for each facility whenever an application is necessary.

**General**

Do not write information in the top or left side margin of the application form as file folder bindings may cover the information.

Do not alter the permit application form in any way, except as directed by this *Guidance* and instructions included in the Louisiana Solid Waste Permit Application for Type I/Type II Landfills.

All chemical testing required for this application shall be in accordance with the Environmental Protection Agency (EPA) or other applicable standards approved by the administrative authority and must be conducted in accordance with the Louisiana Environmental Laboratory Accreditation Program (LELAP) requirements under LAC 33:I.Subpart 3.

All geotechnical testing required for this application shall follow the standards of the American Society for Testing and Materials (ASTM) and must be conducted in accordance with the LELAP requirements under LAC 33:I.Subpart 3.

**When to Submit an Application**

Applications for Type I/Type II Landfills are submitted primarily for one of the following reasons: (1) to obtain a permit for a new facility; (2) to modify an existing facility with an effective permit; (3) to obtain a permit for an existing facility operating without a permit but is now being made subject to the regulations; or (4) to renew a permit for an existing facility.

To avoid unnecessary delays, applications should be submitted as far in advance as possible before construction of the facility or modification. Some construction projects require prior approval of LDEQ Divisions other than the Waste Permits Division. Permit application review times vary depending on the complexity of the application, the completeness of the application, and/or the current workload of the Waste Permits Division. However, be advised that, **“No new permitted solid waste facilities shall be constructed or operated without approval issued by the administrative authority in accordance with these regulations.”** (LAC 33:VII.509.A.5, emphasis added)

**What Should be Submitted**

Submit five (5) paper copies of the application (including one original application) and three (3) electronic copies (on compact discs) addressed to the attention of the current Assistant Secretary of the Office of Environmental Services or the current Administrator of the Waste Permits Division at the following address (LAC 33:VII.513.C.2.a):

Louisiana Department of Environmental Quality

Office of Environmental Services

Waste Permits Division

Post Office Box 4313

Baton Rouge, LA 70821-4313

**NOTE: If the facility is located in Calcasieu Parish or in two parishes, submit six (6) paper copies of the application**. **For applications to go on public review (generally new, renewal, and major modification applications), the applications should be submitted in a three ring binder or as loose pages, so that replacement pages can be inserted into the original submittal.**

Attach a proof of payment for the waste permit application fee to the original application. Do **NOT** attach copies of this check to any documents submitted to LDEQ. See Section 5 for more details.

Keep a photocopy of the application and attachments for your records.

**Basis for Estimations**

All estimates used in responses to the application must be supported by calculations and/or any supporting information and shall be submitted with the application.

**Acceptable Answers**

If certain questions or fields in the application are not applicable, indicate "none" or "not applicable" (N/A). Terms such as "not significant," "nil," "trace," etc. are not appropriate.

The applicant must submit a completed application containing all relevant required information at the time the permit application is submitted. Submission of insufficient or undefined responses and/or information will result in the inability of the LDEQ to issue a permit based on an incomplete permit application. Failure to accurately complete the permit application may subject the application to suspension, notice of deficiency(ies) (NODs), and/or potential enforcement action.

If there are any questions about the required information to be submitted in the permit application, contact the Waste Permits Division at (225) 219-3181.

**Professional Engineer Required**

In accordance with LAC 33:VII.711.B.1, facility plans, specifications, and operations represented and described in the permit application shall be prepared under the supervision of and certified by a professional engineer, licensed in the state of Louisiana.

**Common Definitions**

Terms used in the application and/or in this *Guidance* document shall have the same meanings as defined in the solid waste regulations in LAC 33:VII.115. Relevant terms from LAC 33:VII.115 are included below. Additional terms shall have the following meanings:

Agency Interest (AI) Number – A unique identifier assigned to each facility by LDEQ. Existing facilities in the state have AI numbers assigned to them. New facilities will be assigned an AI Number after LDEQ receives the application.

Commercial Solid Waste – All types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial solid wastes.

Facility – The actual land and associated appurtenances used for storage, processing, and/or disposal of solid wastes, but possibly consisting of one or more units. (Any earthen ditches leading to or from a unit of a facility and that receive solid waste are considered part of the facility to which they connect, except for ditches lined with materials capable of preventing groundwater contamination. The term *facility* does not necessarily mean an entire industrial manufacturing plant.)

Industrial Solid Waste – Solid waste generated by a manufacturing, industrial, or mining process, or that is contaminated by solid waste generated by such a process. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products; byproducts; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; and transportation equipment. This term does not include hazardous waste regulated under the Louisiana hazardous waste regulations or under federal law, or waste that is subject to regulation under the Office of Conservation's Statewide Order No. 29-B or by other agencies.

IT Requirements/ IT Questions – The “IT Requirements” or “IT Questions” are five requirements [see Save Ourselves v. Envtl. Control Comm'n, 452 So. 2d at 1152, 1157 (La. 1984)] that both the permit applicant and the LDEQ consider during certain permit application processes. Although the five requirements have been expressed as three requirements (see Rubicon Inc., 670 So. 2d at 475, 483 (La. App. 1 Cir 1996), rehearing denied), the requirements remain basically the same whether stated as five or as three. The “IT Requirements” must satisfy the issues of whether:

1) the potential and real adverse environmental effects of the proposed project have been avoided to the maximum extent possible;

2) a cost benefit analysis of the environment impact costs balanced against the social and economic benefits of the project demonstrate that the latter outweighs the former;

3) there are alternative projects or alternative sites or mitigating measures, which would offer more protection to the environment than the proposed project without unduly curtailing nonenvironmental benefits to the extent applicable.

Landfill – A facility for the disposal of solid waste, other than landfarm(s) or surface impoundment(s), that disposes of solid waste by placing it on or into the land surface and usually also compacting and covering with suitable cover material to a depth and at a frequency sufficient to control disease vectors and odors and in a manner that protects human health and the environment.

Major Modification – Any change in a site, facility, process or disposal method, or operation that substantially deviates from the permit or tends to substantially increase the impact of the site, facility, process or disposal method, or operation on the environment. See Section 1 for criteria.

Minor Modification – Any modification that does not meet the criteria for a major modification.

Permittee/Permit Holder – A person who is issued a permit and is responsible for meeting all conditions of the permit and these regulations at a facility.

Residential Solid Waste – Any solid waste (including garbage, trash, yard trash, and sludges from residential septic tanks and wastewater treatment facilities) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Site – The physical location, including land area and appurtenances, of an existing or proposed storage, processing, or disposal facility. A *site* may consist of a number of facilities, each subject to a permit to process or dispose of solid waste.

TEMPO – An acronym standing for Tools for Environmental Management and Protection Organizations. This is the main computer database program used by LDEQ to store data and generate permits on all facilities and units.

Type I Facility – A facility used for disposing of industrial solid wastes (e.g., a landfill, surface impoundment, or landfarm). (If the facility is used for disposing of residential or commercial solid waste, it is also a Type II facility.)

Type II Facility – A facility used for disposing of residential and/or commercial solid waste (e.g., a landfill, surface impoundment, or landfarm). (If the facility is used for disposing of industrial solid waste, it is also a Type I facility.)

Unit of a Facility– A designated area of a facility wherein solid waste is, has been, or will be processed, stored, or disposed.

**Guidance for Completing the Permit Application**

The following instructions should be used in completing the permit application form. The numbers, letters, and headings provided in this *Guidance* correspond to the numbers, letters, and headings contained in the application form.

1. **Facility and Permit Applicant Information (LAC 33:VII.519.B.1 and 519.G)**
   1. *Facility name* – Enter the name of the facility.
   2. *Agency Interest (AI)* *number* – Enter the AI Number, if known. Otherwise, enter “unknown” into this field. If this facility has an AI number and it is not provided, it may delay the processing of the permit application.
   3. *Standard Industrial Classification (SIC) code* – Enter the SIC code. If not known, the code can be looked up at: <http://www.osha.gov/pls/imis/sicsearch.html>
   4. *Mailing address, city, state, zip code –* Enter the mailing address of the facility.
   5. *Type of application* – Check the box indicating the application type for the requested permit. New applications should be requested when the facility plans to open a new landfill. Renewal applications should be requested when the facility is renewing an existing permit at the end of the permit term. Modifications should be requested when the facility wants to make a change to its existing permit.

Major modifications occur when the change meets any of the following criteria (LAC 33:VII.517.B.1):

* a change in the types (e.g., commercial, industrial, or residential) of waste to be received at a facility (e.g., where a facility is modified to accept industrial waste);
* an increase in the volume or rate of waste to be received at a facility (weekly tonnage and/or yearly tonnage);
* a physical expansion of the service area;
* an increase in the capacity of the facility;
* an extension of the operating hours or days of operation;
* a change to the facility that may have an impact on traffic patterns (e.g., new entrance);
* a reduction in the number of groundwater sampling parameters or the number of groundwater monitoring wells;
* a lateral or vertical expansion of the permitted area(s) for waste disposal, except for vertical expansion that would result in no net increase of in-place volume; or
* other changes that would make the permit less stringent.
  1. *Proof of publication –* Attach proof of publication of public notice for facilities requesting a **new** or **renewal** permit or a **major modification** in **Attachment 1**. The notice shall be published in the official state journal, *The Advocate*, and the official journal of the parish in which the facility is located. Wording for the public notice is as follows (insert the appropriate information in the parenthesized sections):

Notice is hereby given that *(name of applicant)* does intend to submit to the Louisiana Department of Environmental Quality, Office of Environmental Services, Waste Permits Division, an application for a *(new or renewal)* solid waste permit to operate a *(type of solid waste facility)* in *(parish name)*, Range *(x)*, Township *(x)*, Section *(x)*, which is approximately *(identify the physical location of the site by direction and distance from the nearest town)*. Comments concerning the facility may be filed with the Secretary of the Louisiana Department of Environmental Quality at the following address: Office of Environmental Services, Waste Permits Division, Post Office Box 4313, Baton Rouge, LA 70821-4313.

* 1. *Type and purpose of operation –* Check the box indicating all facility types included in the permit. If more than one type applies, check each applicable box.
  2. *Operational status of site and facility –* Check the box indicating the operational status of the site and the facility. See the “Common Definitions” section for specifics. For the facility status, if the facility is existing and permitted and the application is for an expansion, check the ‘existing’ box. If the facility is adding a new unit, check the ‘proposed’ box.
  3. *Individual/Company-Name of owner* – Enter the name of the company that owns the facility or process unit. Check the box provided if this entry will be the permittee/permit holder.
  4. *Individual/Company-Name of operator* – Enter the name of the company that operates the facility or process unit, if this company is different from the one listed in the *Company – Name of owner* field. Check the box provided if this entry will be the permittee/permit holder.
  5. *Parent company* – Enter the name of the parent company of the company listed in the *Company – Name of owner* field, if one exists. Check the box provided if this entry will be the permittee/permit holder.
  6. *Ownership status –* Check the box that best describes the ownership of the facility. If the facility is leased, list the number of years of the lease in the blank and attach a copy of the lease in **Attachment 2**.
  7. *Ownership –* Check the box that describes the type of entity that owns the facility.
  8. *Solid waste permit or Order to Upgrade number* – If this is an application for a renewal, a modification of an existing permit, or an application for a new permit for a facility that was issued an Order to Upgrade, enter the permit number, including the renewal number, (e.g., P-0121, P-0432R1) or Order to Upgrade (OU) number (OU-0273) in the field. If this is a new facility and has no permit or order to upgrade number, enter N/A in the blank.
  9. *Solid waste facility number* – Enter the solid waste identification number (e.g., GD-016-5483) in this field. If this is a new facility and has no solid waste facility number, enter N/A in the blank.
  10. *Total site acreage –* Provide the total acreage for the site. This includes the facility’s disposal area and all other land associated with the entire site.
  11. *Acreage to be used for disposal –* Provide the total acreage of the disposal area.
  12. *Anticipated proposed remaining life* – Provide the number of months/years that the facility is expected to accept waste. If this application is for an expansion, the remaining life for the existing permitted facility and the proposed expansion should be added together for the total remaining life of the facility.
  13. *Maximum proposed capacity* – Provide the maximum capacity remaining in **both** cubic yards and wet tons. If this application is for an expansion, the remaining capacity for the existing permitted facility and the proposed expansion should be added together for the total maximum capacity of the facility.
  14. *History of solid waste permitting actions –* Provide a history of permitting actions for the facility from the point of the permit issuance or most recent renewal. Historical permitting actions include, dates of permit issuance, dates of modification approvals, a description of the approved modification, any parts of the facility that have been closed in accordance with the solid waste regulations, and the dates of closure and post-closure activities.
  15. *Units in the permit application* – List the names of all units (e.g., cell 6, pond 2A) included in the permit application.
  16. *Environmental permits issued* – List, in chronological order, each environmental permit (e.g., 404 permit, coastal use permit, etc.) issued to this site, its permit number, and date of issuance. Begin with the first permit issued and end with the most recent. The list should include permits from LDEQ and other agencies. This list should include only permits for this site. Permits for other sites that are owned by the same company or owner should be listed in Section 6.A
  17. *Environmental permits applied for* – List, in chronological order, each environmental permit for which the applicant has applied or intends to apply, for this site.

1. **Physical Location and Process Description (LAC 33:VII.519.B.1 and 519.G)**
   1. *Nearest town (in the same parish as the facility)* – Enter the closest town **in the same parish as the facility** (even if the facility is more commonly associated with a town in another parish).
   2. *Parish(es)* – Enter the parish(es) in which the facility is located.
   3. *Geographic location* – Enter in the spaces provided the Section, Township, and Range of the facility.
   4. *GPS coordinates* – Enter in the spaces provided the Latitude and Longitude (in decimal degrees) of:

* the centerpoint of the facility,
* the centerpoint of each unit of the facility (also list the name of the unit), and
* the front gate of the site.

The GPS coordinates of the centerpoint of each unit (landfill, surface impoundment, etc.) and the front gate of the facility are useful site information. If more blanks are needed, attach additional units as a new attachment and add to the ‘Attachment Checklist’ at the end of the application.

* 1. *Physical location* – Provide the physical address and location description in the space provided. Ensure that the address provided is accurate and up-to-date. Provide driving directions if no physical address exists. These directions should originate from the nearest intersection of highways. An example of an acceptable set of driving directions is as follows: “From the intersection of US Hwy 165 & LA Hwy 10 in Oakdale, LA, travel E on Hwy 10 (Oakdale Road) for 2 miles. Turn S onto Kings Rd (Parish Road 1025). Travel approximately 3.5 miles to the facility, which will be on the left side of the road.”
  2. *Site operations* – Provide a brief description of how the site operates to accomplish its primary business function. For example, “The landfill is used to hold waste from the production of oils and lubricants from the ABC Inc – Baton Rouge Refinery. Material disposed of in the landfill is generally catalysts and/or desiccants; catalyst supports; process and/or construction wastes.” or “The landfill takes in municipal and commercial waste from the East Baton Rouge Parish.”
  3. *Modification/Changes* – Provide a brief summary of the facility modifications or changes proposed by the application. If there are no modification or changes proposed, indicate this in the space provided.

1. **Local Zoning (LAC 33:VII.513.B.9-10, 12, 519.B.1.m, and 519.G)**

Zoning is only required for new and major modifications proposing expansions of the solid waste disposal areas for Type II and III facilities. **NOTE:** If zoning is not required, write “N/A” in the first box.

* 1. *Zoning classification –* Provide the zoning classification of the land on which the facility sits at the time of the application submittal. If no zoning exists, provide a letter from the parish that states this.
  2. *Local zoning authority –* Provide the name of the local zoning authority authorized to zone land where the facility is located.
  3. *Local zoning authority contact, address, city, zip, and business phone –* Provide the contact information for the local zoning authority.
  4. *Documentation –* Attach documentation for zoning in **Attachment 3**. Check the box for the information that best describes the documentation attached. Zoning documentation should be current (recommended no older than 18 months) for new permit applications, renewal permit applications, and modifications that require an expansion of the site footprint. If the facility is a Type I landfill accepting waste from off-site (other than from a sister facility) or a Type II landfill, then attach written documents as required by LAC 33:VII.513.B.2 in **Attachment 3**.

1. **Confidentiality (LAC 33:I.Chapter 5 and VII:513.C.2.f)**

Check the box provided to indicate if confidentiality is requested for any information submitted. See LAC:33.I.Chapter 5 for a list of all information that cannot be held confidential. If confidentiality is requested, remove all sections of the permit application subject to the request and submit them separately from the rest of the permit application under a request for confidentiality in accordance with LAC 33:I.503 to the Office of the Secretary at the address below. Written justification to substantiate the confidentiality request must accompany the request. Requests for confidentiality should be sent directly to the following address:

Office of the Secretary

Louisiana Department of Environmental Quality

Post Office Box 4301  
Baton Rouge, LA 70821-4301

On the application form, provide the name(s) of the section(s) of the permit application that have been removed and submitted separately to the above address.

1. **Fee Information (LAC 33:VII.513.C.2.d, 1501, and 1505)**

Check the box indicating the method of payment and provide the check, money order, or receipt number in the blank provided. Attach the check, money order, or copy of the receipt (if paid online) to the original application. Checks or money orders should be made payable to “Louisiana Department of Environmental Quality,” and attached to the completed application. Do **NOT** attach copies of this check to any documents submitted to LDEQ. Do **NOT** send cash. Check the box for the appropriate fee.

For questions regarding fees, call the LDEQ Customer Service Center at 225-219-LDEQ (5337) or Toll Free at 1-866-896-LDEQ (5337). To pay fees online, visit <http://business.deq.louisiana.gov/> or <http://www.deq.louisiana.gov/epay>.

1. **LAC 33:I.1701 Requirements (LAC VII:33.519.E)**

The LAC 33:I.1701 Requirements section must be completed when applying for an initial permit, permit renewal, modification, or change of ownership. Answering the questions provided on the application is a sufficient response; the applicant does not need to attach a separate form to fulfill the 1701 Requirements.

1. *Other environmental permits* – Check the box indicating whether or not the applicant has any federal or state environmental permits identical to, or of a similar nature to, the permit for which the application is being made. This also includes all types of permits, including water, air, and hazardous waste permits. If “yes,” list the permits (other then the ones in Section 1) held in Louisiana after the first question This includes all permits held by the company, owner, or who participate in the environmental management of the facility, but not specific to the site being permitted in this application. For example, ABC Co. owns two sites, one in Baton Rouge, and one in New Orleans. Each site has their own unique permits; the permits not listed in Section 1 would be listed here. If “yes,” also list the *states* in which other environmental permits are held in the second box.
2. *Outstanding fees or penalties* – Check the box indicating if the applicant owes any outstanding fees or final penalties to LDEQ. Outstanding fees do not include fees that have recently been invoiced and are not yet due. If “yes,” explain the reasons why the fee or penalty has not yet been paid in the space provided.
3. *Corporation or limited liability company* – Check the box indicating whether the company is a corporation or limited liability company (LLC). If “yes,” attach a copy of your company’s Certificate of Registration and/or a Certificate of Good Standing in **Attachment 4**. These certificates can be obtained from the Secretary of State for the State of Louisiana. See the Secretary of State’s website for more information: <http://www.sos.louisiana.gov/>.
4. **Certification and Signatures (LAC 33:VII.519.B.1.q, 519.B.3.a, and 711.B.1)**

*Certification of responsible official –* Enter the name, title, company, address, and phone number of the Responsible Official. The Responsible Official must meet the requirements of LAC 33:VII.115. The Responsible Official shall sign and date signifying his/her agreement with the certification statement. This signature is required for all permit applications. If this signature is not provided, the permit application will not be considered administratively complete.

*Certification of application preparer –* Enter the name, title, company, address, phone number, and email address of the Application Preparer. The Application Preparer shall sign and date signifying his/her agreement with the certification statement. This signature is required for all permit applications. If this signature is not provided, the permit application will not be considered administratively complete.

*Certification of professional engineer –* A Louisiana Registered Professional Engineer must certify the application per LAC 33:VII.711.B.1. The engineer's name, title, company, address, phone number, and Louisiana registration number should be entered. The Professional Engineer shall sign and date signifying his/her agreement with the certification statement. The engineer’s seal should also be prominently displayed on the page. If the signature and seal are not provided, the permit application will not be considered administratively complete.

**NOTE:** If this is a modification application and no changes have been made requiring an engineer’s services (e.g., a change in the hours of operation), write ‘N/A’ in the ‘Name’ box and continue to the next section.

1. **Facility Contact Information/Personnel (LAC 33:VII.519.G)**

List the names and contact information for each section. Select the primary contact for technical questions pertaining to the permit application by checking the box labeled “Primary Contact” next to the contact’s name.

*Manager of facility who is located at the site* *–* List the on-site manager of the facility. If the facility is not manned by a full-time staff, list the contact information for a person who can be available to be on-site during inspections, emergency events, or other such instances.

*On-site contact regarding waste permit* – List the on-site solid waste (landfill) contact for the facility. If the facility is not manned by a full-time staff, list the contact information for a person who is able to speak for the facility about the waste permit (landfill).

*Person to whom written correspondence* *should be directed* – List the person to whom written correspondence generated during the solid waste permitting process can be forwarded. A copy of all written correspondence will be sent to the Responsible Official (listed in Section 7) as well, regardless.

*Person to contact regarding Annual Maintenance Fees* – *\*\*Optional\*\** List the person who can be contacted regarding annual solid waste permit maintenance fees (solid waste billing fees) by selecting the appropriate box (a, b, or c) or providing the person’s contact information, if different from a, b, or c. If no person is specified in this field, the Responsible Official (listed in Section 7) will be contacted for this purpose.

It is **NOT** required to list any personal contact information, such as personal email addresses or personal cellular phone numbers. This section is intended to convey work-related contact information to LDEQ. The applicant may choose to provide personal contact information if desired, but it is **NOT** required.

If the personnel mentioned in this section do not have an email address, note this in the appropriate blank. LDEQ strongly encourages applicants to include email addresses for the personnel mentioned in this section in order to facilitate a rapid line of communication during the permit application process. Failure to supply these email addresses may lead to longer application processing periods.

1. **Waste Description and Service Areas (LAC 33:VII.519.B.1.n and o)**
2. *Maximum quantities of waste disposed –* Fill out the table, indicating the maximum amount of waste disposed of (or predicted to be disposed of for new applicants) from each waste type. The quantities should be listed in both wet tons/week and wet tons/year. If an amount is listed for the waste type ‘Other,’ describe the waste (e.g., woodwaste, construction and demolition debris).
3. *Percentage of waste received –* List the approximate percentage of waste that is received (or predicted to be received for new applicants) from onsite, offsite from generators within Louisiana, and offsite from generators outside of Louisiana.
4. *Service area –* Check the box that most appropriately describes the service area of the landfill. If only certain parishes are serviced, check the box for each parish served. If other locations, such as cities, are serviced, check the box for “other” and fill in the blank with the appropriate answer. If “other” is checked, provide an answer that lists the specific parishes, cities, etc. serviced. Do not provide an answer such as “all parishes within a 200-mile radius.” If this is the case, select each parish individually.
5. *Hours of operation –* Provide the **maximum** days of operation per week and the maximum hours the facility intends to operate per day (24-hr period). Provide the **normal** days of operation and hours the facility intends to operate. For example, the facility intends to operate 6 days/week, 50 hours/week; these hours should be listed as the normal days/hours of operation. However, due to a special project, the facility needs to operate 7 days/week, 75 hours/week; these hours should be listed as the maximum days/hours of operation.

List the hours of operation the facility intends to hold during normal operation (e.g., Monday 8:00 am to 5:00 pm; Tuesday 8:00 am to 5:00 pm; Wednesday 8:00 am to 5:00 pm; Thursday 8:00 am to 5:00 pm; Friday 8:00 am to 5:00 pm; Saturday 8:00 am to 12:00 pm). Leave the hours blank if the facility does not intend to operate on that day. **NOTE:** a major modification is required if hours of operation are increased.

1. **Enforcement Actions (LAC 33:VII.519.G)**

The purpose of this section is to determine any requirements, conditions, or limitations that have been imposed upon the facility pursuant to any enforcement actions, settlement agreements, and/or consent decrees so that, if appropriate, they can be incorporated into the permit. Check “yes,” if the facility has been issued and/or entered into any such actions. Provide a summary of all actions in **Attachment 5**. The summary should include all federal and state enforcement actions, settlement agreements, and/or consent decrees issued to and/or entered into by this facility. Include the regulatory agency that issued the enforcement action, or entered into the settlement agreement or consent decrees along with the dates of issuance or agreement. The issued date is the date of the signature or final signature (for settlements) of the appropriate official(s) at the issuing agency(ies) signed the document.

If no such enforcement actions exist, check “no.” Then respond to the second question, which is “has the facility been issued any enforcement actions or entered into any settlement agreements and/or consent decrees within the last three years?” This includes actions from all media. If “yes,” provide a summary of these actions outlined above and attach in **Attachment 5**.

Please note, it is not necessary to update this information during the permit review process, unless an enforcement action is issued that incorporates terms and conditions that must be incorporated into the permit.

1. **Location Information (LAC 33:VII.513.B.3-5, 519.B.1.r, and 709.A)**

**Airports**

1. *Nearest airport* – Give the distance to the nearest airport, even if this distance is greater than five (5) miles. Please note, according to La. R.S. 30:2040(1), no residential, commercial, or construction and demolition disposal facility may be permitted within 10,000 feet of the Acadiana Regional Airport operations area, if such a facility is not in compliance with local zoning ordinances.
2. *Disposal of putrescible waste* – Check the box that indicating if the facility disposes of putrescible waste. Putrescible waste is defined as waste that is “susceptible to rapid decomposition by bacteria, fungi, or oxidation, creating noxious odors” (LAC 33:VII.115.A).

If “yes,” check the box that indicates whether or not the facility is within 10,000 feet of a public-use airport used by turbojet aircraft and check the box that indicates whether or not the facility is within 5,000 feet of a public-use airport used by piston-type aircraft.

1. *Airports within five miles* – If the facility is a Type II landfill, check the box that indicates whether or not the facility is located within five miles of an airport runway.
2. *Airport and FAA notification* – If the answer is “yes” to any of Sections 11.B – 11.D, attach a copy of the notifications sent to the airport(s) within the affected area and the Federal Aviation Administration (FAA) in **Attachment 6**. Notifications should state if the landfill disposes of Type II and/or putrescible waste. It is recommended the notifications for *new* facilities be no older than 12 months. It is recommended the letter be dated within the last five years and that a letter be submitted, if needed, to the appropriate agency(ies) at least 90 days prior to submittal of the solid waste application.

**Master Plan**

1. *Area master plan* – Attach an area master plan in **Attachment 7**. The area master plan should include location maps and/or engineering drawings. The maps shall, at a minimum, show the *current* site, road network, major drainage systems, drainage flow patterns, location of the closest population centers, the nearest public-use airport (if disposing of putrescible waste) within a five mile radius, the location of the 100-year flood plain, and any other pertinent information. The maps or drawings should be legible and large enough to show the nearest town located in the same parish as the facility. Clearly display the name of each of these landmarks. Include all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information. Include a list of any references used to obtain the information.
2. *Facility access* – Provide a description of the access to the site. Access to the site shall be by all-weather roads capable of meeting the demands of the facility. Description should include how the facility will avoid congestion, sharp turns, obstructions, or other hazards conducive to accidents. Surface roadways shall be able to withstand the weight of transportation vehicles.

**Traffic and Land Use**

1. *Traffic flow letter* – Attach in **Attachment 8** a letter from the Louisiana Department of Transportation and Development (LDOTD) or other appropriate agency(ies) regarding the impact on traffic flow. The letter should state that the facility will not have a significant negative impact on the traffic flow of area near the site and construction, maintenance, or proposed upgrading of the nearby roads is adequate to withstand the weight of the transportation vehicles. It is recommended the letter be dated within the last five years and that a letter be submitted, if needed, to the appropriate agency(ies) at least 90 days prior to submittal of the solid waste application.

1. *Land use within three miles* – Provide a description of the existing land use, since the most recent census, within a three mile radius of the facility. The land uses shall include, but are not limited to, residential; health-care facilities; schools; agricultural; industrial and manufacturing; other commercial; recreational; and undeveloped. An approximate percentage for each land use is acceptable. Provide the source used for this information (e.g., U.S. Census Bureau).
2. *Aerial photograph* – Attach a *current* aerial photograph that is representative of the current land use in **Attachment 9**. The scale should be at least a one mile radius of the area surrounding the facility, clearly marked, and of sufficient scale to depict all pertinent features. Include all pertinent symbols such as scale, north arrow, legend, and any other pertinent information. The photograph should be legible. A source for the information should be provided.

**Population**

1. *Population and population density* – Provide a description of the estimated population and population density within a three mile radius of the facility. A source for the information should be provided (e.g., U.S. Census Bureau). The latest census figures should be used. If using a software program to determine this information, it should use the latest census figures and this should be stated in the application.

**Environmental Characteristics**

1. *Sensitive areas within 1,000 feet* – Check the box indicating if the facility is located within 1,000 feet of any of the following: wetlands, estuaries, wildlife-hatchery areas, habitats of endangered species, archaeological sites, historic sites, publicly-owned recreations areas, and any other similar critical environmental areas. Facilities can contact the following agencies to determine if their facility is located within 1,000 feet of any of these sensitive areas: the U.S. Army Corps of Engineers (Corps), the Louisiana Department of Wildlife & Fisheries (LDWF), the U.S. Fish and Wildlife Service, and the Louisiana Department of Culture, and Recreation & Tourism (LDCRT). If the answer is “yes,” attach a description of the measures that will be implemented to prevent impacts to these areas from landfill operations in **Attachment 10**. This description should also include a list of all the known areas within 1,000 feet of the facility.
2. *Sensitive areas documentation* – Attach the documentation received from the appropriate state and federal agencies to substantiate the information provided in Section 11.K in **Attachment 11**. It is recommended the letters be dated within the last five years and that they be submitted, if needed, to the appropriate agency(ies) at least 90 days prior to submittal of the solid waste application.
3. *Start of waste acceptance* – Check the box that indicates when the facility began receiving waste in relation to October 9, 1993.
4. *Wetland determination* – If the wetland determination (attached in 11.L) from the Corps indicates there are wetlands present within 1,000 feet of the facility, check the box indicating whether the facility has a 404 Permit from the Corps. If “yes,” attach a copy of the permit in **Attachment 12**. If “no,” check the box indicating whether the facility has applied for a 404 Permit. If “yes,” attach a copy of the application and proof of submittal in **Attachment 12**.

If the wetland determination indicates there are no wetlands present within 1,000 feet of the facility, check “N/A.”

**Wells and Faults**

1. *Map of shot holes, seismic lines, and wells* – Attach in **Attachment 13** a scaled map that shows the location of all shot holes, seismic lines, and wells. This map should include wells within the facility and within 2,000 feet of the facility perimeter. This section requires a map with the borders of the facility marked and paralleling the borders at a distance of 2,000 feet with another boundary indicating the study area. It is important to note the facility is not the site, rather it is the area being permitted and this area can in turn have more than one unit. Therefore, the study area boundary is an area 2,000 feet in all directions from the facility boundary to be permitted.

Wells on this map will include private water wells and oil and gas wells, operating or abandoned. In addition, simply contacting a state agency for information on shot holes and seismic lines is not acceptable. Up-to-date information on shot holes and seismic lines should be obtained from local government agencies such as the Louisiana Department of Natural Resources (LDNR), and any oil companies or seismograph survey companies that have conducted oil and/or gas exploration activities in the area. Up-to-date information on water wells and oil and gas wells should be obtained from the LDNR SONRIS database.

1. *Map of water wells* – Attach in **Attachment 14** a scaled map showing the location of all water wells (including private water wells) within one mile of the facility perimeter. Water wells included on this map will be associated with public water systems or will be for industrial or agricultural use.
2. *Methods to prevent adverse effects from shot holes, seismic lines, and/or wells* – Check the box indicating if there are anyshot holes, seismic lines, and/or wells located within the facility. Provide the source for this information. If “yes,” provide a plan describing the methods that will be used to prevent adverse effects to the environment from the shot holes, seismic lines, and/or wells located within the facility. *See the instructions for 11.O*.
3. *Map of nearby faults* – Attach in **Attachment 15** a scaled map showing the location of all recorded faults within the facility and within one mile of the facility perimeter. State or large regional scale maps shall not be the sole source for fault information as small faults may not be indicated on such maps. Professional literature should be investigated for more detailed work completed in the area of the subject site and federal and state agencies should be contacted for unpublished works. Information on faults may be obtained from available published information to include "Fault and Salt Map of South Louisiana; "**[[1]](#footnote-1)** 100K Map Series and other maps published by the Louisiana Geological Survey (LGS); publications by the Geological Society of America and the American Association of Petroleum Geologists; and oil and gas field maps available from the LDNR. The depths of faults associated with oil and gas fields or salt domes should be noted.
4. *Existing faults through the facility* – Check the box indicating if there are any existing faults extending through the facility. A source for the information should be provided. If “yes,” refer to the map(s) provided in the response to 11.R and provide other geophysical map(s) or refer to the cross sections provided under 20.E. Attach a discussion of measures that will be taken to mitigate adverse effects in **Attachment 16**. Measures to protect those areas can include describing impermeable soils at the base of the unit, liners, and groundwater monitoring activities.
5. *Existing faults within 200 feet* – Check the box indicating if there are any existing faults within 200 feet of the facility that have had displacement in Holocene time. The geophysical maps and site cross sections should be evaluated to determine the age of the faulting, along with other published sources of information. *See instructions for 11.R and 11.S*. If “yes,” attach in **Attachment 17** a demonstration that an alternate setback distance of 200 feet will prevent damage to the structural integrity of the unit and will be protective of human health and the environment.

**Seismic Impact**

1. *Presence of seismic impact zones* – Check the box indicating if the facility is located within a seismic impact zone. Provide a source for this information, whether or not it is an impact zone. If “yes,” attach in **Attachment 18** a demonstration that the facility will be designed and operated to withstand stresses caused by the maximum ground motion on all structural components, including liners; leak-detection systems; leachate collection, treatment, and removal systems; final covers; and run-on/run-off systems. Seismic impact zones are defined as areas with a ten percent or greater probability that a maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth’s gravitational pull (g), will exceed 0.10 g in 250 years. Information on seismic impact zones should be obtained from the U.S. Geological Survey (USGS).

**Unstable Areas**

1. *Presence of unstable areas* – Check the box indicating whether the facility is located in an unstable area and provide the source of this information. If “yes,” attach in **Attachment 19** an evaluation to ensure that all structural components are evaluated and will continue to function as designed and required by the regulations in the event of differential settlement. When evaluating whether an area is unstable, the applicant must consider, at a minimum, the following information:

* on-site or local soil conditions that may result in significant differential settling,
* on-site or local geologic or geomorphological features, and
* on-site or local human made features or events (both surface and subsurface).

**Utilities**

1. *Presence of utilities* – Attach in **Attachment 7** a map showing all pipelines, power lines, and rights-of-way. The map should be legible and the name of each of these landmarks shall be clearly labeled. Define all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information. Include a list of any references used to obtain the information.

**Emergency Response**

1. *Emergency response plan approval* – Attach a copy of the emergency response plan AND the approval letter from the State Fire Marshal’s Office in **Attachment 20**. This letter should state that the facility’s emergency response plan has been approved per LAC 33:VII.513.B.3-5. This information is **not** required for modifications. Renewal applications should submit an updated approval letter from the State Fire Marshal’s Office. Additionally, a copy of the emergency response plan should be submitted to the closest fire department, emergency medical services (EMS) agency, and hospital or clinic.
2. **Facility Characteristics (LAC 33:VII.709.B)**
3. *Map –* Attach a map in **Attachment 7** that shows, as applicable, property lines, original contours (shown at not greater than five foot intervals), buildings, units of the facility, drainage, ditches, and roads. The map should be legible and the name of each of these landmarks clearly labeled. Define all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information. Include a list of any references used to obtain the information.
4. *Perimeter barriers –* Describe the perimeter barriers and other control measures that are used to prevent unauthorized ingress or egress except by willful entry. The description should include language of how each facility entry point will be manned, monitored, or locked continuously during operating hours and will be locked during non-operating hours, and signage to be posted listing the types of waste to be received. Additional information that could be included is fencing (such as chain linked or barbed wire fencing), berms, gates, times when the gates are open and manned, times when the gates are closed and/or locked, signage, and the location of the gate house.
5. *Buffer zone map –* Attach a map in **Attachment 7** showing the facility’s buffer zone. The buffer zone is required to be a minimum of 200 feet between the facility and the property line. The map should be legible and boundaries clearly labeled. Define all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information. If the buffer zone is less than 200 feet, a notarized affidavit must be obtained from each landowner having ownership interest in any property located less than 200 feet from the facility. If a church is within 300 feet of the facility property, see Section 12.D.
6. *Church buffer zone –* Check the box indicating if the facility existed prior to April 1, 2010. Existing facilities include both facilities holding a permit and facilities that were physically present prior to April 1, 2010. If the answer is “no,” then there must be a buffer zone of at least 300 feet between the facility and the common property line with any structure currently used as a church. The structure used as a church must have been used as a church prior to the submittal of the permit application. This requirement does not apply to any landfill or disposal facility that existed prior to April 1, 2010; to any portion of such facility that is closed or has ceased operations; or to future expansions of the permitted disposal areas of any such facility. If the buffer zone is less than 300 feet from a structure used as a church and the facility did not exist prior to April 1, 2010, then a notarized affidavit must be obtained from the owner of a structure used as a church that is located less than 300 feet from the facility. A copy of the notarized affidavit(s) must be entered in the mortgage and conveyance records of the parish(es) in which the property is located.
7. *Buffer zone affidavits –* If buffer zone affidavits for the previous two sections are required, attach a copy of these in **Attachment 21**. If a buffer zone waiver or exemption has been obtained from LDEQ, attach a copy of the letter stating this in **Attachment 21**. A copy of the notarized affidavit(s) must be entered in the mortgage and conveyance records of the parish(es) in which the property is located. Include a copy of this submittal in **Attachment 21**.
8. *Device or method for tracking quantities, sources, and types of waste –* Describe the device(s) or method(s) used to determine the quantity of waste in wet-weight tonnage; the sources of waste, including in and out-of-state; if industrial, where it was generated; and the types of incoming waste (e.g., commercial, residential, or infectious). Additionally, describe the facility’s central control and record keeping system used to tabulate this information. Quantities of waste may be estimated by a scale or a formula. If a formula is used, include this in the application. Include descriptions of visual inspections that occur and the purpose of these inspections (e.g., to determine the type of incoming waste).
9. *Unauthorized waste –* Describe the device(s) or method(s) used to control and prevent entry of unauthorized wastes (e.g., visual inspections, signage that states what waste(s) is (are) unacceptable). Unauthorized wastes include hazardous waste, TSCA-regulated PCB waste, or other solid waste not authorized by the permit. If the application is for a Type II landfill, include in the description procedures for random inspections of incoming waste loads. The frequency of the random inspections should be often enough to reasonably ensure exclusion of prohibited wastes. Describe the procedures used to determine the potential presence of unauthorized wastes (e.g., visual inspections, examination of paperwork from hauler, testing) and how the waste is handled if deemed unacceptable (e.g., sent back with transporter, stored in roll-off box until transportation to permitted facility).
10. **Surface Hydrology (LAC 33:VII.519.B.2 and 711.A)**
11. *Surface drainage –* Describe the methods or features, such as levees, ditches, canals, etc., that will be used to prevent surface drainage from flowing through the operating areas of the facility.
12. *Runoff collection system design –* Attach a description of the storm water runoff collection system for the facility in **Attachment 22***.* Provide the design for surface-runoff-diversion levees, canals, or devices that are used to contain and prevent drainage from the units of the facility that have not received final cover. The proposed system shall be designed to collect and control at a minimum the water volume of runoff resulting from a 24 hour/25-year storm event and/or the peak discharge from a 25-year storm event as calculated in the response to Section 13.E. The design of the runoff collection system shall include a comparison of water flows to levee heights or ditch capacities.
13. *Runoff collection system operation –* In accordance with LAC 33:VII.711.A.5, storm water runoff from operating areas that contain solid waste and have not yet received interim compacted cover or final cover shall be considered contaminated and shall not be allowed to mix with uncontaminated surface runoff. Describe the methods or devices used to ensure runoff from these areas will be collected and treated and managed such that contaminated runoff is not allowed to mix with uncontaminated surface runoff. These methods usually involve the use of diversion berms to route water to the appropriate facilities.
14. *Run-on collection system –* A storm water run-on control system shall be installed to prevent run-on from entering operating areas during the peak discharge from a 24-hour/25-year storm event. Provide calculations and/or describe how the run-on diversion system will prevent run-on from the peak flow of a 25-year storm event and/or control the water volume resulting from a 24-hour/25-year storm event. These methods usually involve the use of temporary diversion berms to route water to the appropriate facilities.
15. *Rainfall amount –* Provide input data and calculations used to determine the peak discharge from the 25-year storm event and the water volume resulting from the 24-hour/25-year storm event. Also, provide the source of the background data including the storm intensity, duration, etc.
16. *Aquifer recharge –* Check the box indicating if there are any aquifer recharge areas in the site or within 1,000 feet of the perimeter. Provide a source for this information. If “yes,” attach a map of aquifer recharge areas. Additionally, provide a description of the measures planned to protect these areas from adverse impacts due to the operation of the facility in **Attachment 23**. Provide a source for this information. State or large regional scale maps shall not be the sole source for aquifer recharge information. Aquifer recharge zones shall be classified and mapped as high, moderate, low, or alluvial. This information should be obtained from “Recharge Potential of Louisiana Aquifers” **[[2]](#footnote-2)** (to Accompany State Recharge Potential Maps). These maps are only based on soil characteristics up to six (6) feet; so, if the excavation goes deeper than six (6) feet then the map may be inaccurate. Note that “soils on alluvial valleys…are mapped as alluvium and are generally fine grained, but are considered to have high recharge potential due to the hydraulic connection between alluvial aquifers and rivers.” **[[3]](#footnote-3)** More detailed site-specific investigations are needed to determine recharge potential at depths greater than 5 to 6 feet, including the use of soil survey information and maps of the LGS. The facility may be located in an area of moderate to high recharge potential, and may require design to protect the recharge areas from adverse impacts of operations at the facility. Measures to protect those areas can include a description of impermeable soils at the base of the unit, liners, and groundwater monitoring activities.
17. *100-year flood plain –* Check the box indicating whether the facility is located within the 100-year flood plain and provide the source of this information. Attach a map that clearly shows the location of the facility and the location of the floodplain in **Attachment 24**. The map should be legible and the name of each of these landmarks clearly labeled. Define all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information.
18. *100-year base flood –* Describe how the flow of the 100-year base flood will be controlled so that it will not reduce or restrict the temporary water-storage capacity of the facility (flood plain) or cause waste to be carried off-site. This description shall state that the site shall be filled to bring site elevation above flood levels, or that perimeter levees or other measures will be provided to maintain adequate protection against a 100-year flood. In addition, be sure to provide the elevation of the 100-year flood, the elevation of the proposed levees, and ensure the proposed levee elevation will provide sufficient freeboard from the 100-year flood. Freeboard shall be estimated using wind and wave action models.
19. *Flooding –* Describe how the facility is designed such that flooding does not affect the integrity of the facility or result in the washout of solid waste. Provide a description of the use of levees, operational changes, etc. that may be used to protect the facility from washout of solid waste. This will also include backflow preventers in drainage piping.
20. **Facility Plans and Specifications (LAC 33:VII.519.B.3 and 711.B)**

**General**

1. *Design dimensions –* Provide the maximum final elevation, the maximum depth of excavation, the width of the facility at the widest point, and the length of the facility at the longest point. Ensure all elevation references are provided in the same datum.
2. *Plan view design drawings –*Attach in **Attachment 25** a sufficient number of drawings to show the following in plan view:

* original contours of the site prior to development,
* proposed elevations of the base of units prior to the installation of any liners,
* slopes (as indicated by arrows),
* locations of proposed and existing levees,
* proposed final contours, and
* other pertinent information.

These drawings shall clearly show the facility and the appropriate excavation slopes or above grade slopes, the location of flood control structures (levees, ditches, etc.), and the location of permanent storm water run-on and runoff controls. The map should be legible and the name of each of these landmarks clearly labeled. Define all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information. Include a list of any references used to obtain the information.

1. *Cross-sectional drawings –* Attach in **Attachment 26** a sufficient number of drawings to show the following in cross-section:

* original and final grades of the site,
* original and proposed elevations,
* drainage,
* proposed liner designs and locations,
* leachate collection system design, and
* other pertinent information.

These drawings shall clearly show the base excavation elevation of all the operational units, the excavation slopes and above grade slopes, the location and profile of flood control structures, and the location of permanent run-on and runoff controls. The map should be legible and the name of each of these landmarks clearly labeled. Define all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information. Include a list of any references used to obtain the information.

**Liners**

1. *Description of liner system –* Attach in **Attachment 27** a description of the proposed liner system including calculations of anticipated leachate volumes, and rationales for the particular design. This description shall clearly indicate the types of materials proposed for the liner. It is advisable to propose materials that will meet minimum requirements and not to denote specific name brand materials.

If the applicant is requesting an alternate liner system, provide any supporting documentation and calculations used to demonstrate the proposed alternate liner offers equivalent or superior groundwater protection as compared to the standard liner required in LAC 33:VII.711.B.5.c. This demonstration normally includes an evaluation using the HELP Model and a discussion on the advantages of using the alternate materials.

In addition to the above, either demonstration shall address the requirements in LAC 33:VII.711.B.5.b. Liner designs shall also address shear, settlement, and consolidation movement of the waste materials.

1. *Quality assurance/quality control plan –* Attach in **Attachment 28** a quality assurance/quality control (QA/QC) plan that ensures the soil and synthetic liners are designed, constructed, installed, and maintained properly. At a minimum, the QA/QC plan shall include:

* minimum test frequencies and methods for soil borrow material,
* soil placement methods and compaction testing,
* minimum test frequencies for soil permeability and moisture/density testing,
* method to determine total in-place soil thickness,
* geomembrane manufacturers QA/QC testing and minimum requirements,
* proposed geomembrane installation observations,
* frequency for trial seam testing,
* frequency for geomembrane destructive and nondestructive seam testing,
* geomembrane repair observations,
* observations to determine classification of the leachate drainage soil layer,
* leachate collection layer permeability testing frequency,
* method to determine total leachate collection system thickness, and
* other testing and observations required.

**Leachate Collection, Control, Treatment, and Removal**

1. *Leachate collection system –* Attachin **Attachment 29** a description of the leachate collection system, which shall include the calculations of anticipated leachate volumes, and rationales for particular designs of such systems. At a minimum, the description must indicate the proposed system meets the management standards in LAC 33:VII.711.B.4.a-e and the performance standards of LAC 33:VII.711.B.4.f.

If the applicant seeks approval for an alternate leachate collection and removal system design, provide a description demonstrating how the alternate system would offer equivalent or greater groundwater protection than the protection provided in the performance standards contained in LAC 33:VII.711.B.4.f. Provide any supporting background materials, calculations, etc.

Alternate leachate collection and removal system designs may be approved by the administrative authority if the applicant can demonstrate that the alternate leachate collection and removal system would offer equivalent or greater groundwater protection than the protection provided in the performance standards contained in LAC 33:VII.711.B.4.f. The demonstration shall: indicate the specific types of waste to be disposed, include all other relevant site-specific factors, and be performed using modeling methods acceptable to LDEQ and commonly used to evaluate water flow.

In either case, it is important to note that the slope on the leachate lines shall be designed such that the leachate lines maintain positive drainage when evaluated at post-settlement conditions. This evaluation shall be based on a settlement analysis conducted with site specific geotechnical data at a time when the maximum settlement is expected.

**Levee Construction**

1. *Levee construction –* Attach in **Attachment 30** a description of the methods and measures used to ensure the levees are constructed and maintained in a manner to protect the facility against a 100-year flood. At a minimum, levees shall be engineered to minimize wind and water erosion, have a grass cover or other protective cover to preserve structural integrity, and provide adequate protection against a 100-year flood.

The minimum elevation of the levee shall provide adequate freeboard for the 100-year flood. Freeboard may be estimated using wind and wave action models.

**Cover Requirements**

1. *Daily cover –* Attach an estimate of the approximate dimensions of daily fill and a description of the materials to be used for daily cover in **Attachment 31**. The approximate dimension of daily fill shall be the estimated maximum area of the working face. At a minimum, daily cover shall consist of silty or sandy clays applied to a minimum of six inches thick at the end of each operating day and shall meet the requirements of LAC 33:VII.711.B.2.a, f, and g.

If the applicant seeks approval for an alternative daily cover, provide a description of the materials to be utilized and provide any supporting data, documentation, and calculations demonstrating the alternative daily cover meets or exceeds the performance standards of LAC 33:VII.711.B.2.a. Some commonly requested forms of alternative daily cover include tarps, hydromulch, and contaminated soil. When requesting any alternative daily cover, provide an operational plan to describe the procedures used to deploy the cover. For hydromulch, an operational plan should include, at a minimum, details on the proper mixing ratio, method of application, and wet-weather operational changes for the specific brand(s) proposed. The operational plan for contaminated soil should include details about the nature of the soil that may be used including provisions to use material that does not produce strong odors. The administrative authority may waive the requirements for daily cover for **Type I Landfills only**, if the applicant can demonstrate that the nature of the waste is such that daily cover is not necessary. If seeking a waiver from daily cover requirements, describe why daily cover is not necessary (consider odor, vector, fire hazards, aesthetics, etc.).

1. *Interim and interim compacted cover –* Attach in **Attachment 32** a description of the materials proposed to be used as interim and interim compacted cover. At a minimum, interim cover shall consist of silty clays applied at a minimum of 1‑foot thick and interim compacted cover shall consist of silty clays applied at a minimum of 2-feet thick and compacted. Interim cover or interim compacted cover shall be applied on all operating areas of a facility that will not receive solid waste for a period 60 days or longer and shall be applied within 48 hours of the last receipt of solid waste in the operating area or as soon as weather permits. Any delay in the application/completion of interim cover due to weather shall not exceed seven calendar days unless a written extension is issued by the Office of Environmental Compliance. Provide an erosion control plan to ensure the cover is maintained and performs as intended.

If the applicant seeks approval for an alternative interim or interim compacted cover, describe the materials to be utilized and provide any supporting data, documentation, and calculations demonstrating the alternative cover meets the performance standards of LAC 33:VII.711.B.2.a. In addition, provide an operational plan to describe the procedures to deploy the alternative cover. Include this operational plan in **Attachment 35**.

1. *Soil balance calculations –* Attach in **Attachment 33**calculations estimating the volume of material required for daily, interim, and final cover for the life of the facility.A statement of where the soil will be obtained shall be included in this attachment.

**Gas Collection/Treatment or Removal System**

1. *Gas collection in accordance with 40 CFR Part 60, Subpart WWW –* Check the box to indicate whether the facility will install a gas collection/treatment or removal system in accordance with 40 CFR Part 60, Subpart WWW. If no, check the box to indicate whether a gas collection/treatment or removal system is needed to limit methane gas to the lower-explosive limit at the facility boundary or 25 percent of the lower-explosive limit in facility buildings.
2. *Gas collection/treatment or removal system design –* Provide a description of the facility’s gas collection/treatment or removal system. If the gas collection/treatment or removal system is not permitted under 40 CFR 60, Subpart WWW, then the description should be conceptual since it is understood these systems require continuous maintenance and/or the possibility of adding or removing gas collection wells or other features to ensure peak performance. In addition, provide an air monitoring plan that incorporates the standards and reporting requirements in LAC 33:VII.711.D.3. The monitoring plan shall include details describing the use of above ground and below grade monitoring to ensure gas concentrations do not exceed the limits in LAC 33:VII.711.D.3.a.ii.

**Slope Stability Analysis**

1. *Slope Stability Analysis –* Attach in **Attachment 34** a slope stability analysis evaluating excavations deeper than 10 feet, proposed final slopes, and critical intermediate conditions. Soil data shall be obtained from a geotechnical analysis of onsite soils. Provide both short term and long term analysis while addressing the requirements of LAC 33:VII.711.B.7.c-h. Provide the source for all data.

Stability analysis shall be required for any modification that includes a vertical and/or lateral expansion and for any increase of steepness of the landfill slopes.

1. **Facility Administrative Procedures (LAC 33:VII.519.B.4 and 711.C)**
2. *Recordkeeping system –* Describe the system used to keep records. Include the types of records to be kept and a description of how records are used by management to control operations. The list of records should include, but may not be limited to, the following:

* copies of the applicable Louisiana solid waste rules and regulations;
* the permit;
* the permit application;
* permit modifications;
* certified field notes for construction;
* operator training programs;
* daily log;
* quality-assurance/quality-control records;
* inspections by the permit holder or operator, including, but not limited to, inspections to detect incoming hazardous waste loads;
* operator certificates from the Board of Certification and Training for Solid Waste Disposal System Operators, if applicable;
* records demonstrating that liners, leachate-control systems, and leak-detection and cover systems are constructed or installed in accordance with appropriate quality assurance procedures;
* records on the leachate volume and results of the leachate sampling;
* monitoring, testing, or analytical data;
* any other applicable or required data deemed necessary by the administrative authority;
* records on groundwater sampling results;
* post-closure monitoring reports; and
* copies of all documents received from and submitted to the department.

1. *Personnel –* Provide an estimate of the minimum personnel required to operate the facility at maximum operation. The personnel should be listed by general job classification (e.g., operators, mechanics, security, etc.). If job title acronyms are used, please spell out what they abbreviate.
2. *Certified facility operators –* If the facility is a Type II landfill, list the numbers and levels of **certified** facility operators. The number is determined by the Louisiana Solid Waste Operator Certification and Training Program Board (La. R.S. 37:3151 et seq. and LAC 46:Part XXIII).
3. **Facility Operations and Implementation (LAC 33:VII.519.B.5 and 711.D)**
4. *Operational plan –* Attach a comprehensive operational plan that describes the total operation of the facility in **Attachment 35**. This operational plan shall include types of waste accepted by the facility, minimum equipment to be provided, waste acceptance and handling procedures, waste segregation and salvaging procedures, leachate collection system monitoring, drainage system maintenance, inclement weather procedures, contingency procedures, provisions for controlling vectors, scavenging control, air monitoring procedures, traffic control, cover procedures, and unit closure.

This plan shall describe the total operation of the facility from entry and acceptance of waste to final closure of the facility and shall:

* provide a list of the types of waste to be accepted by the facility along with any acceptance criteria, waste acceptance and handling procedures, etc. The waste acceptance and handling procedures shall include a discussion of pre-acceptance testing, comparison of the waste material when received at the gate to the waste description provided for pre-acceptance, and any special handling procedures for disposal;
* provide the minimum equipment to meet the operational needs of the facility. List the generic types of equipment and do not list specific brands;
* discuss any planned waste segregation and the location of the storage areas of these materials and the maximum time these materials will be stored until removed;
* provide the methods that will be used to ensure the leachate collection/treatment system is functioning as designed;
* provide the methods to ensure the on-site drainage system is maintained and serving its intended function;
* discuss the method and operational changes that will be used during wet-weather, paying particular attention to maintenance of access roads and water management;
* discuss procedures for air monitoring including the action limits and remedial steps in the case of an exceedance;
* provide a discussion of the planned use for daily, interim, interim compacted, and final cover; and
* provide the planned sequence of closure for each unit through closure of the entire facility.

1. *Contingency plan –* Attach in **Attachment 20** a plan that includes procedures, equipment, and contingency plans for protecting employees and the public from accidents, fires, explosions, or any other event that may cause harm. The plan should include provisions for emergency response and care, including the proximity to the nearest hospital, fire, and emergency services. Include a list of any training programs that are implemented at the site. If the emergency response plan required by LAC 33:VII.513.B.3-5 includes the requirements above, please note this in **Attachment 20**.
2. *Implementation plan –* Attach an implementation plan in **Attachment 40**. The implementation plan shall include:

For existing facilities

* construction schedules including the beginning and ending time frames and time frames for the installation of all major features, and
* a plan for closing and upgrading existing operating areas if proposing expansion of a facility or construction of a replacement facility.

For proposed facilities

* details on cell/unit implementation to be constructed in phases, and
* a plan for closing and upgrading existing operating areas if proposing expansion of a facility or construction of a replacement facility (e.g., additional monitoring wells).

All time frames shall be specified in days, with day 1 being the date of standard permit issuance.

1. **Facility Closure (LAC 33:VII.519.B.6 and 711.E)**
2. *Closure plan –* Attacha closure plan in **Attachment 41** that includes the following:

* the estimated date of final closure (date of last acceptance of waste);
* the methods to be used and steps necessary for closing the facility;
* an itemized cost to close the facility by a third party;
* a description of final cover, along with the methods and procedures used to install the final cover;
* an estimate of the largest area of the facility ever requiring final cover at any time during the active life;
* an estimate of the maximum inventory of solid waste ever on site over the active life of the facility;
* a schedule for completing all activities necessary for closure;
* a sequence of final closure of each unit of the facility; and
* a copy of the document that will be filed upon closure of the facility with the official parish record keeper.

Ensure the closure plan addresses all of the requirements in LAC 33:VII.711.E.

The date of final closure shall be estimated based on the anticipated volume of waste expected over the life of the facility. The closure costs shall be based on the estimated cost of hiring a third party to close the facility at the point in the facility’s operating life when the extent and manner of its operation would make closure the most expensive. Also, in the response to Section 14.J in the permit application, a soil balance was calculated and if this evaluation indicated sufficient soil does not exist on site to close the facility, then the closure costs shall be estimated using soil from off-site sources.

The description of the final cover shall list each of the components proposed to be used in constructing the cover. In addition, provide a QA/QC plan for each of the components. Most times this QA/QC plan is identical to the QA/QC plan for liner installation. If this is the case, then state this in the response. If the applicant is requesting an alternate final cover, provide any supporting documentation, calculations, and background materials used to demonstrate that the proposed final cover provides performance equivalent to or better than the final cover requirement in LAC 33:VII.711.E.3.a.ii and iv.

Provide the maximum area requiring final cover at any given time. Note, the closure costs shall be based on closing the maximum area all at once. The facility shall never have an area without final cover greater than the proposed maximum area.

Provide a schedule for completing all closure activities with time frames specified in days.

1. *Final contours drawing –* Attach a drawing that shows the proposed final contours of the facility in **Attachment 41**. The maximum elevation of the facility should be clearly marked on the figure. Include a cross-section of the proposed final cover. The map should be legible and the name of each of these landmarks clearly labeled. Define all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information.
2. **Facility Post-Closure (LAC 33:VII.519.B.7 and 711.F)**

*Post-Closure plan –* Attach a post-closure plan in **Attachment 42** that includes the following:

* the methods to be used to maintain the integrity and effectiveness of the final cover;
* methods to prevent run-on and runoff from eroding or otherwise damaging the final cover;
* procedures for maintaining and operating the leachate collection/treatment system, the gas collection/treatment or removal system, and the groundwater monitoring system;
* an itemized, third party cost to conduct post-closure activities; and
* annual reports submissions to the Office of Environmental Services on the integrity of the final cap.

The post-closure costs shall be based on the estimated cost of hiring a third party to conduct post-closure activities in accordance with the closure plan. The post-closure cost estimate shall also include, at a minimum, estimates to abandon the leachate collection system and the gas collection/treatment or removal system, to close the leachate treatment system, and the cost for plugging and abandoning the groundwater monitoring wells at the completion of the post-closure care period.

1. **Financial Responsibility (LAC 33:VII.519.B.8)**
2. *Land owner information –* Provide the name and address of the person or company who currently owns the land.
3. *Land owner information if permit granted –* Provide the name and address of the person or company who currently owns the land. If this is the same person or company listed in Section 19.A list ‘same as above’ under the ‘Name’ entry.
4. *Permit requestor –* Provide the name of the agency or public body requesting the permit. If the agency is a public corporation, attach its published annual report in **Attachment 43**. If neither of these descriptions fit, give the names of the principal owners, stockholders, and/or general partners. If this information is available online, referencing a weblink is acceptable.
5. *Financial assurance –* Check the box that indicates if you are an existing facility. If “yes,” attach list the financial mechanism currently used for closure and/or post-closure costs. If “no,” then provide a statement acknowledging that financial assurance will be obtained in accordance with LAC 33:VII.1303.A.2. Financial assurance shall be secured prior to accepting waste. If financial assurance needs to be updated, send updated financial assurance under separate cover to the attention of the current Assistant Secretary of the Office of Environmental Services at the following address:

Louisiana Department of Environmental Quality

Office of Environmental Services

Waste Permits Division

Post Office Box 4313

Baton Rouge, LA 70821-4313

1. **Geology (LAC 33:VII.801, 803, and 805)**
2. *Natural low permeable soils –* Check the box that indicates whether or not the facility has natural soils of low permeability for the solid waste facility in question. If “yes,” attach a demonstration in **Attachment 44**. If “no,” attach a design for surfacing natural soils that do not meet this requirement in **Attachment 44**. Available sources include boring logs which may be developed from a visual classification of drill cuttings. Boreholes may be drilled with hand augers where practical. The borings shall be characterized by a geologist, or a professional engineer licensed in the state of Louisiana with expertise in geotechnical engineering and hydrogeology. Information on soil permeabilities are to be obtained from geotechnical tests conducted on soil samples from the borings per LAC 33:VII.519.B.3.b. Additional information, if necessary, should be obtained from the U.S. Department of Agriculture, Natural Resources Conservation Service Soil Surveys and maps from the LGS. The LDEQ may approve other forms of geological investigation on a case-by-case basis and provided that any holes, excavations, test pits, etc. are logged by a qualified individual and properly plugged and abandoned.
3. *Boring logs* – Attach in **Attachment 45** the completed boring logs used to characterize the subsurface soils and groundwater conditions at the facility, and used to install monitoring wells and piezometers at the facility. The subsurface soils and groundwater conditions at the facility shall be characterized by a geologist, or a professional engineer licensed in the state of Louisiana with expertise in geotechnical engineering and hydrogeology. Boring logs should be completed to the ASTM and the Unified Soil Classification System (USCS) standards. All boring logs should be completed with scales, symbols, and accurate descriptions, including first water encountered.
4. *Plan-view map*– Attach in **Attachment 46** a scaled plan-view map that shows existing topographic contours and locations of all borings, monitoring wells, and piezometers with respect to the facility. The map shall include all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information. Existing contours should be based on the applicable USGS 7.5 minute quadrangle map and or a registered professional land surveyor’s elevation map. All maps or copies should be legible.
5. *Regional geologic cross sections* **–** Attach regional geologic cross sections from available published information in **Attachment 47**. The cross sections should depict the stratigraphy to a depth of at least 200 feet below the ground surface. Reference published sources that are available from the USGS, the LGS, or other applicable references.
6. *Geologic cross sections* **–** Attach in **Attachment 48** site specific geologic cross sections developed from borings performed at the site and completed boring logs for the site subsurface geologic investigation. The cross sections should be along the perimeter of the facility and along each transect (line of borings). Each cross section shall include:

* lithologic and boring log data for all borings, existing and plugged and abandoned monitoring wells, and piezometers;
* locations and depths of borings, monitoring wells, and piezometers;
* landfill and impoundment excavation depths;
* screen intervals of all existing and plugged and abandoned monitoring wells and piezometers;
* groundwater levels;
* other applicable features such as faults, slurry walls, groundwater dewatering systems; and
* identification of individual stratigraphic units including the uppermost water-bearing permeable zone(s), uppermost aquifer, and lower confining units.

As noted above in Section 20.B, boring logs should be completed to the ASTM and the USCS standards. All boring logs should be completed with scales, symbols, and accurate descriptions. The lithologic descriptions and level of detail on the cross sections should correspond to the lithologic descriptions and level of detail on the boring logs.

1. *Permeable zone, confining units, and faults* ***–*** Attach in **Attachment 49** structure maps and contour maps depicting the areal extent, depths, and thickness of all permeable zones, confining units, and faults to a depth of at least 30 feet below the lowest point of excavation. The structure and isopach maps should be developed from borings performed at the site from the site subsurface geologic investigation and published literature for fault information. As noted above in Section 20.B, boring logs should be completed to the ASTM and the USCS standards. All boring logs should be completed with scales, symbols, and accurate descriptions. Any localized faulting noted by “slicken sides” on boring logs should be included. The maps should have a horizontal and vertical scale.
2. *Groundwater flow* **–** Attach in **Attachment 50** potentiometric maps depicting groundwater flow directions using a minimum of three piezometers or monitoring wells in each water-bearing zone. This should include zones that comprise the uppermost aquifer and uppermost water-bearing permeable zone(s). Piezometers and monitoring wells shall be constructed, and well-completion diagrams submitted, in accordance with the applicable well construction standards in LAC 33:VII.805.A.3. For horizontal flow, provide a scaled potentiometric groundwater flow map(s) based on the current or planned monitoring well configuration containing at least one up-gradient and two down-gradient monitoring wells for each zone monitored. Vertical groundwater flow should be depicted using flow net diagrams, and charts comparing groundwater levels measured in different zones using nested wells and piezometers.
3. *Potentiometric surface map* **–** Attach at least the four most recent, scaled, quarterly potentiometric surface maps for each saturated permeable zone in **Attachment 50**. The maps should be to a depth of at least 30 feet below the lowest point of excavation. The location of the facility, monitoring wells, and piezometers should be included along with the corresponding water level elevation measurements. The scaled potentiometric groundwater flow maps for each permeable zone monitored based on the current or planned monitoring well configuration should contain at least one up-gradient and two down-gradient monitoring wells per zone monitored.
4. **Groundwater Monitoring** **(LAC 33:VII.519.B.10, 801, 803, and 805)**
5. *Monitoring zones* **–** Based on boring logs, plan view maps, and geologic cross sections required in Sections 20.B, 20.C, and 20.E respectively; provide a description and designation for each zone planned to be monitored.
6. *Maps of groundwater monitoring zone* **–** Attach in **Attachment 51** large scale, legible maps of the unit(s) being monitored showing the locations of the existing and proposed monitoring wells. The map should be legible and the name of each of these landmarks clearly labeled. Define all pertinent map symbols such as scale, north arrow, legend, and any other pertinent information.

The *relevant point of compliance* (POC) is a line that goes through all down-gradient monitoring wells for each zone monitored. The relevant point of compliance shall be on property owned or controlled by the permit holder and shall be selected based on at least the following factors: hydrological characteristics of the facility and the surrounding land; volume and physical and chemical characteristics of the leachate; quantity, quality, and direction of flow of groundwater; proximity and withdrawal rate of the groundwater users; availability of alternative drinking water supplies; existing quality of the groundwater, including other sources of contamination and their cumulative impacts on the groundwater, and whether the groundwater is currently used or reasonably expected to be used for drinking water; and public health, safety, and welfare effects.

**NOTE:** that if mounding and/or recharge is indicated by the incorporation of the permitted facility water surface elevations into the potentiometric maps, the relevant POC shall encircle the permitted facility. The POC wells should be placed as close to the monitored unit(s) as possible. The POC shall be depicted on a separate map for each zone monitored.

Also, be advised that the gradient positions of the monitoring wells, and hence the POC, may change during groundwater monitoring activities based on changes or reversals in groundwater flow directions.

1. *Table of well construction details* **–** Attach in **Attachment 52** the table provided as **Appendix A** at the end of this guidance. The table shall include pertinent well construction details for each monitoring well. Include the coordinates, designation of each well as either upgradient or downgradient, the unit(s) being monitored, elevation (in National Geodetic Vertical Datum or NGVD) of a reference point for measuring water levels, elevation of the ground surface (in NGVD), drilled depth (in feet), depth to which the well is cased (in feet), the depth to the top and bottom of the bentonite seal (in feet), the depth to the top and bottom of the screen (in feet), the slot size, the casing size, and the type of grout. Also, provide as-built diagrams (cross sections) of each well in the table.
2. *Groundwater monitoring system* **–** Check the box indicating if the facility is a new facility. If “yes,” attach a detailed monitoring well installation work plan in **Attachment 53**. The plan should include monitoring well locations, depths, drilling method(s), installation, development, and registration requirements. Well construction shall be in accordance with the Water Well Rules, Regulations, and Standards, as adopted by the LDOTD, Water Resources Section, in LAC 56, as well as the guidelines established in the latest version of the LDEQ’s and LDOTD’s *Construction of Geotechnical Boreholes and Groundwater Monitoring Systems Handbook*. Include well-completion diagrams for each well showing all pertinent features, such as the elevation of the reference point for measuring groundwater levels, screen interval, and ground surface. If features change from the approved plans, then a permit-modification request shall be submitted in accordance with LAC 33:VII.517.

If the facility is not a new facility, check the box indicating whether the facility has an existing groundwater monitoring system. If “yes,” demonstrate that wells were constructed in accordance with the above requirements, and attach all background data and at least four years of detection monitoring data in **Attachment 54**. The detection monitoring data should be from monitoring wells in place at the time of the permit application. If “no,” attach in **Attachment 53** a plan to install monitoring wells as outlined in the paragraph above. Monitoring wells shall be sampled quarterly for the first year and semi-annually thereafter. Groundwater data shall be submitted within 90 days after each sampling event.

1. *Groundwater monitoring phase* – Check the box indicating what phase of groundwater monitoring the facility is currently implementing. Attach in **Attachment 55** the Detection Monitoring Sampling and Analysis (SAP), Assessment Monitoring SAP, or Corrective Action Plan. If the facility is in Detection Monitoring, submit the Detection Monitoring SAP. If the facility is in Assessment Monitoring, submit the Assessment Monitoring SAP. If the facility is in Corrective Action, submit the Corrective Action Plan.
2. *Groundwater Sampling and Analysis Plan* **–** Attach a Groundwater SAP in **Attachment 55**. The SAP should be a stand alone document and shall include a well location map, a table with all monitoring well information, and detection monitoring parameters selected according to the requirements of LAC 33:VII.805.C.7. The SAP shall also include:

* a description of the permeable zones being monitored;
* the locations of monitoring wells and piezometers;
* potentiometric maps showing gradient positions of the monitoring wells and piezometers (**NOTE:** the gradient positions of the monitoring wells may change during groundwater monitoring activities based on changes or reversals in groundwater flow directions.);
* selection and justification of parameters to be sampled;
* sample collection, preservation, and shipment procedures;
* chain of custody control;
* analytical methods including practical quantitation limits;
* quality assurance/quality control methods;
* statistical evaluation methods (if applicable);
* reporting requirements; and
* any other pertinent information.

For a new facility or an existing facility in detection monitoring without a groundwater monitoring system, the statistical evaluation methods of the SAP shall include a statistical analysis decision tree, a statement that the SAP incorporates all groundwater sampling requirements of LAC 33.VII.805.B and should specifically address LAC 33.VII.805.B.2 and B.3.  The statistical analysis section of the SAP should not propose any specific statistical method(s) since the applicant does not yet know which statistical method will be used.  However, the statistical section should state that the analytical results will be evaluated by statistical methods that incorporate LAC 33.VII.805.B.2.e, LAC 33.VII.805.B.5, and LAC 33.VII.805.B.6 upon completion of the initial sampling event.  It should also be made clear in the SAP that an initial sampling event pursuant to LAC 33.VII.805.C.2.c will be performed and the samples analyzed for the parameters listed in the approved SAP.  The initial sampling event shall consist of a minimum of four consecutive quarters; however, if the facility wants to collect more samples for statistical analysis purposes, these samples should be collected during the initial sampling event.

For an existing facility in detection monitoring with a groundwater monitoring system and existing statistical analysis plan, the statistical analysis plan shall be referenced in the SAP.  If this facility does not have an existing statistical analysis plan and has enough historical data to develop statistical methods, the statistical evaluation methods shall be presented in the SAP.

Be advised that the facility must demonstrate that the appropriate statistical procedure(s) is (are) being used; therefore, please reference any published documentation that the facility will use to choose its statistical procedure(s).  Common references include “Statistical Methods for Groundwater Monitoring”**[[4]](#footnote-4)** and “Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities.”**[[5]](#footnote-5)**

For an existing facility in assessment monitoring or corrective action, a statistical analysis plan should not be provided, instead, a RECAP evaluation and development of groundwater protection standards should be provided.

1. **Capacity Evaluation (LAC 33:VII.513.B.1)**

Attach a copy of the capacity evaluation submitted to the LDEQ prior to this permit application and the LDEQ’s response in **Attachment 56**.

1. **Additional Information (LAC 33:VII.519.G)**

Attach and additional information that is needed to support the application. This may include maps, drawings, and other supplemental information. Some examples include areas for isolating nonputrescible waste or incinerator ash, borrow area locations, and locations of leachate tanks or leachate treatment ponds. Include these attachments after the required attachments. Fill in the checklist provided with the application with the attachment title(s)

1. **Environmental Assessment Statement (EAS or IT Question Responses, LAC 33:VII.519.B.9)**

This section is required for the following:

* All new permit applications
* Any submittal with a major modification

Answer each of the five questions provided. Use complete sentences. Provide full and complete answers to each question below and attach in **Attachment 57**. A copy of Louisiana Revised Statutes 30:2018 (La. R.S. 30:2018), which require answers for these questions to be provided, can be found at the following web address:

<http://www.deq.louisiana.gov/portal/Portals/0/planning/regs/eqa.pdf>.

1. Demonstrate that the potential and real adverse environmental effects of the facility have been avoided to the maximum extent possible.
2. Provide a cost-benefit analysis demonstrating that the social and economic benefits of the facility outweigh the environmental impact costs.
3. Discuss and describe possible alternative projects that would offer more protection to the environment without unduly curtailing non-environmental benefits.
4. Discuss possible alternative sites that would offer more protection to the environment without unduly curtailing non-environmental benefits.
5. Discuss and describe the mitigating measures which would offer more protection to the environment than the facility, as proposed, without unduly curtailing non-environmental benefits.

**Attachment List and Checklist**

This list includes all attachments needed for the permit application. Check the box after the attachment title indicating if it is included or not. Do **NOT** renumber the attachments. If an attachment is not applicable, check the box for N/A, leave that attachment empty and move on to the next one. If additional attachments are needed, fill in the title(s) on the last page or the additional page provided at the end of this guidance. **Not all attachments will be used for each application.**

**ATTACHMENT LIST AND CHECKLIST Additional Page**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attachment** | **Item Description** | **Yes** | **No** | **N/A** |
| 60 |  |  |  |  |
| 61 |  |  |  |  |
| 62 |  |  |  |  |
| 63 |  |  |  |  |
| 64 |  |  |  |  |
| 65 |  |  |  |  |
| 66 |  |  |  |  |
| 67 |  |  |  |  |
| 68 |  |  |  |  |
| 69 |  |  |  |  |
| 70 |  |  |  |  |
| 71 |  |  |  |  |
| 72 |  |  |  |  |
| 73 |  |  |  |  |
| 74 |  |  |  |  |
| 75 |  |  |  |  |
| 76 |  |  |  |  |
| 77 |  |  |  |  |
| 78 |  |  |  |  |
| 79 |  |  |  |  |
| 80 |  |  |  |  |
| 81 |  |  |  |  |
| 82 |  |  |  |  |
| 83 |  |  |  |  |
| 84 |  |  |  |  |
| 85 |  |  |  |  |
| 86 |  |  |  |  |
| 87 |  |  |  |  |
| 88 |  |  |  |  |
| 89 |  |  |  |  |
| 90 |  |  |  |  |

**Appendix A**

**Well Construction Table**

Add rows as necessary. The rows in red are examples and should be deleted when completing the form. In the ‘Gradient’ column, only ‘Up’ or ‘Down’ should be entered.

DMS = Degrees Minutes Seconds, NGVD = National Geodetic Vertical Datum, BGS = Below Ground Surface.

| **Well Id** | **Name of Unit Monitored** | **Latitude (DMS)** | **Longitude (DMS)** | **Installation Date** | **Zone Monitored** | **Gradient** | **Top of Casing Elevation**  **(ft NGVD)** | **Ground Surface Elevation (ft NGVD)** | **Top of Screen Depth**  **(ft BGS)** | **Bottom of Screen Depth**  **(Ft BGS)** | **Well Depth**  **(ft BGS)** | **Well Diameter**  **(ft)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | ASB | 30 15 15 | 90 17 20 | 11/15/2010 | Sratum II | Up | 28.25 | 25.25 | 19 | 24 | 30 | 0.25 |
| MW-3 | New Landfill |  |  |  |  | Down |  |  |  |  |  |  |
| MW-4 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

1. by W.E. Wallace, published in 1966 by Gulf Coast Association of Geological Societies, Vol. 16. [↑](#footnote-ref-1)
2. published by the LGS in September 1989 [↑](#footnote-ref-2)
3. “Recharge Potential of Louisiana Aquifers” published by LGS in 1989 [↑](#footnote-ref-3)
4. by Robert D. Gibbons, published in 1994. [↑](#footnote-ref-4)
5. by U.S. EPA, published in 2009. [↑](#footnote-ref-5)