



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

**LANDFILL POST-CLOSURE USE PERMITTING GUIDELINES**  
JUNE 2009

Landfills closed and capped in accordance with a MassDEP permit issued after 1990 may be good locations for the post-closure development of facilities that use photovoltaic panels and/or wind turbines to generate electricity from these renewable resources. Massachusetts Solid Waste Regulations require that this type of development at a capped and closed landfill obtain a MassDEP Post-Closure Use permit (310 CMR 19.000, specifically section 19.143: Post-Closure Use of Landfills).

Landfills that were closed and capped before 1991 or landfills that have not been closed and capped in accordance with a MassDEP approved closure permit may need to obtain a MassDEP closure permit before applying for a Post-Closure Use permit. In some cases, closure activities can be conducted concurrently with the development of the post-closure use. If you are considering the development of a renewable energy generating facility at a landfill, contact the appropriate MassDEP Regional Office to determine the permit(s) that your project will need before construction can start.

**Types of Post-Closure Use Permits:**

MassDEP has established two types of permits for post-closure activities at landfills, depending on whether the reuse activity is classified as major or minor. Application forms are available from MassDEP's website:

<http://www.mass.gov/eea/agencies/massdep/recycle/approvals/solid-waste-applications-and-forms.html#6>

**BWP SW 36** Post-closure use: major category.

Approval for post-closure use at a closed solid waste facility that is not subject to a BWPSW37 application.

**BWP SW 37** Post-closure use: minor category.

Approval for post-closure use at a closed solid waste facility that:

- a. does not affect the facility's appurtenances; or
- b. is not located on the final cover of a landfill.

If your post-closure use involves both "major" and "minor" activities, your project will need a Major Post-Closure Use permit (BWP SW 36), which will cover all activities involved in your project.

Any solar or wind energy project that would physically alter the landfill cap will constitute a "major" post-closure use activity.

**Permit Application:**

The post-closure use permit application provides MassDEP with information that the agency uses to determine whether the proposed activity can be safely installed/operated on the closed/capped landfill without impairing the integrity of the landfill's final cover or liner system or otherwise resulting in adverse impacts to public health, safety, welfare or the environment.

MassDEP encourages interested parties to schedule a pre-application meeting prior to preparing and submitting an application for a post closure use. A pre-application meeting can help to define and clarify the contents of the application as well as familiarize MassDEP staff with the project. To schedule a pre-application meeting, contact your appropriate MassDEP Regional Office contact listed at the end of this document.

The information that is required for an application for either type of Post-Closure Use permit is described below.

**1. Background Information:**

- **Solid Waste Site Assignment:** Document the landfill's solid waste site assignment, particularly any specific requirements or limitations that would constrain, preclude or prevent the implementation of a post-closure use at the closed landfill.
- **Landfill Property Deed:** Identify any limitations established for the property that may constrain or preclude the proposed activity.
- **Environmental Site Assessment:** Provide a summary of the findings of the site assessment performed in accordance with 310 CMR 19.150, and evaluate the relevance of that information to the proposed post-closure use activity. Identify any additional assessment work that may be needed to evaluate the impacts of the proposed post-closure activity.

NOTE: If an assessment has not been performed, MassDEP may determine that one will be required (in some cases, aspects of an assessment can be conducted concurrently with site preparation or development of the proposed post-closure use).

- **Closure Permit and Closure Certification:** Include copies of the closure permit and closure certification approval issued by MassDEP for the landfill.

## 2. Specific Requirements:

The following application components need to address existing conditions as well as proposed project and post-construction conditions related to the post-closure use activity.

- Site Plan – Plan showing the landfill limits, site-assignment limits, and all features/appurtenances on the site including abutting properties within a 500-foot radius of the landfill.
- Landfill Capping Design Plan – Plan showing all features of the landfill’s existing capping system and any proposed changes to that design.
- Post-Closure Use Design Plan – Plans and reports describing the activities required to prepare, construct, install and operate the post-closure use development and associated activities.
- Storm Water Drainage/Run-Off Control Plan – Plan showing all storm water control systems/features and any alterations that will be needed for the post-closure activity.
- Storm Water Erosion Control Plan – Plan showing all erosion control features associated with the construction and operation of the post-closure use.
- Landfill Gas Control/Monitoring Plan - Description and plan showing all existing gas control equipment as well as any modifications to the gas control system that would be required to accommodate the post-closure use.
- Geotechnical Settlement and Stability Analysis - Description of the existing waste mass (i.e. type, depth, etc) and the potential for differential settlement, potential effects on the post-closure use and an analysis of the stability of all structures and reinforcement necessary to build on the landfill cap and side slopes.
- Capping System Interface - Description and plan illustrating the relationship between the existing capping and the proposed construction, installation, and operation of the post-closure use. Describe how the post-closure use will overlay the capping system, and whether (and if so, how) it would require penetrating the capping system.
- Utilities - Description and plan detailing all existing utilities and any new utilities that will be required for the post-closure activity, such as utility lines that will support connections to the electric transmission “grid” or other electricity users.
- Environmental Monitoring – Description and plan illustrating the landfill’s existing environmental monitoring systems, focusing on landfill gas monitoring systems and measures that will safeguard against landfill gas build-up and an explosion/fire risk associated with the post-closure use.

- Qualitative Health & Environmental Risk Assessment - A demonstration that the proposed post-closure use activities (construction, maintenance activities) will not pose a health or safety risk to either the public or operators of the post-closure use. Ambient air monitoring and near-surface methane monitoring may be necessary to evaluate landfill gas emissions and the integrity of the cap.
- Post-Closure Monitoring & Maintenance Plan – A description of all associated activities regarding the monitoring and maintenance of the landfill/site inclusive of the post-closure use activity as it relates to maintaining the integrity of the landfill capping system.
- Financial Assurance - Description of the mechanism that will be used to provide assurance that the care and maintenance of the landfill capping system is properly performed throughout the 30-year post-closure period (this must include the operational and maintenance needs of the post-closure use activity), in accordance with 310 CMR 19.051.
- Wetlands Protection Plan (310 CMR 10.00) – Documentation of a determination of the applicability of the Massachusetts Wetlands Protection Act. If wetlands requirements are triggered, the application will need to contain documentation that a Notice of Intent and Order of Conditions have been secured for the proposed post-closure activities.
- MEPA - Description and documentation that the proposed post-closure use activity is in compliance with the provisions of 301 CMR 11.00. This includes a finding that the project is/ is not subject to the Massachusetts Environmental Protection Act (MEPA) or that the MEPA requirements have been addressed through filing of an Environmental Notification Form (ENF). If a MEPA finding has been obtained, such should be attached to the application.

### **Application Review Process:**

MassDEP reviews applications in two stages (which are established and defined in 310 CMR 4.00): Administrative Review and Technical Review. The length of time MassDEP has to review the application depends upon the type of post-closure use activity (i.e. major versus minor).

#### Administrative Review:

Within twenty four (24) days of submitting either a BWP SW 36 “Major” or a BWP SW 37 “Minor” application, MassDEP regional office staff will perform an administrative review, to determine whether the application contains all of the information required to conduct an evaluation of the proposal. If additional information is needed, the applicant will be provided with a list of specific deficiencies, and will have ninety (90) days to provide the information.

#### Technical Review:

Within seventy two (72) days of determining a BWP SW 36 “Major” Post-Closure Use application is Administratively Complete, MassDEP will complete its technical review of the proposal and issue a final decision on the proposal (i.e. approval or denial). If additional

technical information is needed, the applicant will be advised of the information required and will have ninety (90) days to remedy any deficiencies.

Within twenty (20) days of determining a BWP SW 37 “Minor” Post-Closure Use application is Administratively Complete, MassDEP will complete its technical review of the proposal and issue a final decision on the proposal (i.e. approval or denial). If additional technical information is needed, the applicant will be advised of the information required and will have twenty (20) days to remedy any deficiencies.

**For More Information:**

All Permit Application Instructions and Forms:

<http://www.mass.gov/eea/agencies/massdep/service/approvals/>

Solid Waste Permit Application Forms:

<http://www.mass.gov/eea/agencies/massdep/recycle/approvals/solid-waste-applications-and-forms.html>

To find your Regional Office

<http://www.mass.gov/eea/agencies/massdep/about/contacts/>

Regional contacts:

MassDEP Southeast Region		
Solid Waste Contact: Mark Dakers		508-946-2847
MassDEP Northeast Region		
Solid Waste Contact: John Carrigan		978-694-3299
MassDEP Central Region		
Solid Waste Contact: James McQuade		508-849-4007
MassDEP Western Region		
Solid Waste Contact: Dan Hall		413-755-2212