



# fact sheet

## Developing Renewable Energy Facilities on Closed Landfills

*The Massachusetts Department of Environmental Protection (MassDEP) encourages post-closure use of landfills as long as the use will not compromise the environmental protection afforded by the landfill cap and closure. While capped and closed landfills may not be appropriate sites for residential or commercial development, they may be appropriate sites for the installation of photovoltaic panels or wind turbines, which generate renewable energy and may provide income for landfill owners. This fact sheet describes MassDEP's permit requirements and process for obtaining a post-closure use permit for these activities.*

### Getting Started

➤ **Determine if any existing permits or limitations preclude, prevent or limit post-closure activity at the landfill, including:**

- The landfill's site assignment issued by the local Board of Health
- MassDEP's approval of the landfill's closure plan and closure certification approval (issued for landfills closed after 1990)

If the landfill was not closed and capped in accordance with a MassDEP approval, or was closed and capped before 1990, an environmental assessment (required by 310 CMR 19.050) and other closure activities (required by 310 CMR 19.140) may be required. These activities may be done concurrently with the post closure development of the site, provided that development is done in accordance with a MassDEP approval to proceed.

This information should be available at the appropriate MassDEP Regional Office [Find your region at <http://www.mass.gov/eea/agencies/massdep/about/contacts/>] or from the owner or operator of the landfill. Approved site assignments can be obtained from the local Board of Health

➤ **Identify the environmental permits that may be required:**

*A Solid Waste Post-Closure Use Permit (MassDEP)*

- A Major Post-Closure Use Permit (BWPSW36) is required if the planned renewable energy facility would involve construction of a structure or installation of equipment on or into the landfill's capping system. Otherwise, a Minor Post-Closure Use Permit (BWPSW37) is required. (See 310 CMR 19.143)
- See the next page for further guidance on post-closure use requirements.

*A Wetlands Notice of Intent (NOI) and Order of Conditions (Local Conservation Commission)*

- At a minimum file a Request for Determination of Applicability to determine if the project will come under the Wetlands Protection Act. If so, a Wetlands NOI and Order of Conditions would be required if construction and/or operation of the proposed renewable energy installation will alter land within a fresh or coastal wetland, marsh, swamp, riverfront area; is located on land subject to flooding; or is located within the buffer zone (100 feet) of a wetland. (See 310 CMR 10.00 and M.G.L. 131, section 40).

A Massachusetts Environmental Policy Act (MEPA) filing may be required if the project exceeds certain thresholds (Executive Office of Energy and Environmental Affairs, MEPA Unit <http://www.mass.gov/envir/mepa>)

- For example, MEPA requires filing an Environmental Notification Form if a proposed renewable energy installation will generate 25 or more megawatts of electricity, or construction will require alteration of one or more acres of bordering vegetated wetland, ten or more acres of any other wetland area (including land altered to install roads and utilities), or disturbance of designated priority habitat for state-listed endangered or threatened species. (See 301 CMR 11.03 for the complete list of the MEPA review thresholds)

*Other local permits (zoning, special use, etc.) may be required. Consult the municipality in which the landfill is located.*

- **Schedule a pre-application meeting with the Solid Waste Section in the appropriate MassDEP Regional Office.** See contacts at the end of this fact sheet.

### **Applying for a MassDEP Solid Waste Post-Closure Use Permit**

Prepare and submit a BWP SW 36 Permit Application Form, using the checklist below to ensure your application is complete.

#### **Obtain the following from MassDEP files or the landfill owner/operator:\***

- ✓ Site plan, site assignment limits and abutting properties within a 500-foot radius
- ✓ Landfill closure/cap design plan
- ✓ Existing storm water drainage/runoff control plan
- ✓ Existing landfill gas control/monitoring plan
- ✓ Description of the existing environmental monitoring at the landfill
- ✓ Description of all existing utilities
- ✓ Wetlands Notice of Intent and Order of Conditions, and MEPA finding if required.

\*If unavailable from these sources, the applicant will need to provide this information.

#### **Provide the following information on the project and expected landfill impacts:**

- ✓ A description of all features, equipment and activity associated with the proposed renewable energy development project.
- ✓ Storm water erosion control plan for the construction and operation of the project.
- ✓ A description of the existing waste mass (i.e. type, depth, etc) the potential for differential settlement, and potential effects on the post-closure use as well as an analysis of the stability of all structures and reinforcement necessary to build on the landfill cap and side slopes.
- ✓ A description of any proposed alterations to the landfill gas control system and safeguards employed to prevent landfill gas build-up.
- ✓ A description of any modifications that will be needed for the landfill's environmental monitoring system, focusing on the landfill gas monitoring system.
- ✓ A description of the development's interface with the landfill's capping system, particularly where the installation will lie upon or penetrate the landfill cap.
- ✓ A description of utilities proposed to be installed (including proposed connections to the utility grid for renewable energy projects).
- ✓ A qualitative (and, if needed, quantitative) assessment of the public health risks that may be posed by the construction, installation, operation and maintenance of the development, for site workers, neighbors, and other people who may be affected by the project.
- ✓ A description of the activities that the owner/operator of the post-closure development will undertake to maintain the integrity of the landfill capping system.
- ✓ A description of the financial assurance instrument that will provide for care and maintenance of the landfill capping system into the future.

Massachusetts Department of  
Environmental Protection  
One Winter Street  
Boston, MA 02108-4746

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If the proposed development will not involve construction of a structure or installation of equipment or activity on or into the landfill's capping system, a "Minor" post-closure use permit (BWP SW 37) may be used. Some of the information described above will not be required for a BWP SW 37 application. The specific permit that a post-closure use will need will be identified in a pre-application meeting with staff in the MassDEP Regional Office.

**Timelines\* for Issuing a MassDEP Post-Closure Use Permit (BWP SW 36 or 37)**

<b>Review Process</b>	<b>Major Post-Closure Use (BWP SW 36)</b>	<b>Minor Post-Closure Use (BWP SW 37)</b>
Administrative Review	24 days	24 days
Technical Review 1	72 days	20 days
Technical Review 2**	72 days	20 days

\*From date of submittal. \*\*After any deficiencies have been corrected by the applicant.

In accepting a post-closure use permit, the applicant(s) agree to be responsible for operating and maintaining the solid waste management facility in accordance with all applicable laws and regulations; in accordance with the conditions of the facility's site assignment, all permits, approvals, and authorizations; and to correct conditions at the facility's site which result in a threat to public health, safety, or the environment, or which constitute violations of applicable laws, regulations, permits/approvals/authorizations. Applicants who develop and/or operate a renewable energy generation facility at a closed landfill but who do not own the landfill agree to be responsible for correcting conditions at the site of the approved post-closure use that result in a threat to public health, safety, or the environment, or that constitute violations of applicable laws, regulations, permits/approvals/authorizations that are caused by or related to the activity authorized by the post-closure use permit.

MassDEP issues post-closure use permits to the people and entities that apply for these permits. Generally, the permit is issued to both the landfill owner and the developer of the renewable energy generation facility (who is considered to be an "operator" under MassDEP's solid waste regulations), where they are both listed as "Applicants" in the application. The post-closure use permit is only valid for the specific owner and/or operator identified in the permit. If a permit holder transfers his or her interest in a post-closure use, a Certification for Transfer of a Permit form (BWP SW 49) must be filed with MassDEP. This form identifies the new owner and/or operator, and commits that entity to complying with the terms and conditions of the post-closure use permit.

Where an application for a post-closure use permit is filed only by the landfill owner, the owner needs to incorporate requirements to comply with all of the terms and conditions of the post-closure use permit in any leases or contracts that implement the post-closure use.

**More Information**

- All Permit Application Forms and Instructions: <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>

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- Landfill Post-Closure Use Permitting Guidelines:  
<http://www.mass.gov/eea/agencies/massdep/climate-energy/energy/landfills/>
- MassDEP Regional Solid Waste Section Contacts  
Find your region at: <http://www.mass.gov/eea/agencies/massdep/about/contacts/>

Central Region (Worcester) - James McQuade, 508-767-2759  
Northeast Region (Wilmington) - Susan Ruch (acting), 978-694-3384  
Southeast Region (Lakeville) - Mark Dakers, 508-946-2847  
Western Region (Springfield) - Dan Hall, 413-755-2212

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