

Site Redevelopment Profile

Charles George Landfill Superfund Site

Corner of Dunstable & Cummings Roads
Tyngsborough, Massachusetts 01879

Property Overview

Size

70 acres

Current Site Uses

- A 3.56-megawatt solar array on part of the site supplies power for 300 homes.

Use Restrictions

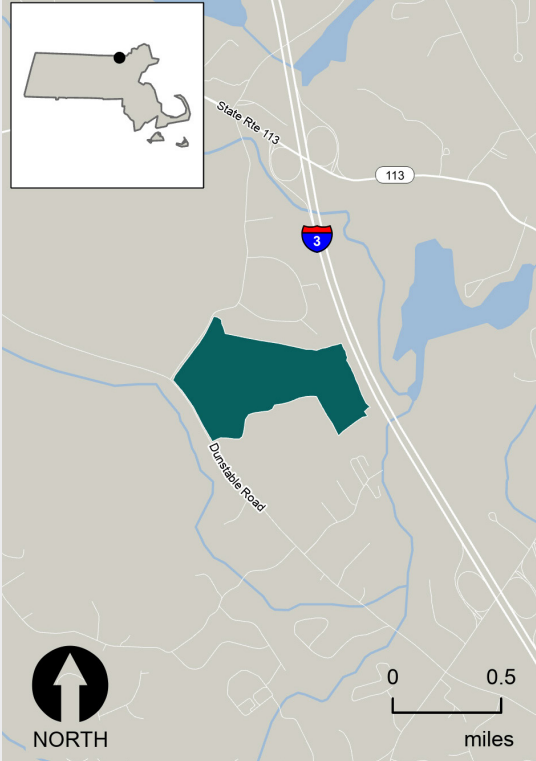
- Use of the site for residential, school or child care centers is prohibited.
- Disturbance, removal or disposal of soils, groundwater extraction, agriculture, any use that would disturb the remedy, and installation of water supply wells on parcels with access to the public water supply are also prohibited.

Surrounding Population

1,176
1 MILE

20,493
3 MILES

82,869
5 MILES



A map of the site in Massachusetts.

Site History and Redevelopment Timeline

1955-1967

Contractors operate the landfill.

1967

Individual purchases the landfill property.

1971

Charles George Land Reclamation Trust purchases the landfill property.

1973

Permit in place for handling of hazardous waste at landfill.

1983

MassDEP identifies contamination in nearby wells and orders landfill closure. EPA places the site on the National Priorities List. EPA selects remedy to extend the city's water supply to the site area.

1983-1984

EPA emergency response actions provide a temporary water supply and address exposed refuse at the site.

1984

EPA begins site cleanup.

1985

EPA selects remedy for the site: landfill capping, gas collection and venting, and leachate collection.

1988

EPA selects remedy to address groundwater contamination. EPA finishes construction of site's remedy.

1998

EPA finishes construction of site's remedy.

2009

MassDEP takes over operation and maintenance activities.

2015

Town reaches agreement with Citizens Energy Corporation for solar project at the site.

2016

Solar facility begins operating.

History and Cleanup

The Charles George Reclamation Trust Landfill Superfund site, a former landfill, is home to a new solar facility. This facility shows how collaboration between municipalities and state and federal agencies can ensure the protection of human health and the environment while also enabling the development of energy resources at sites.

The 70-acre area is located about a mile southwest of Tyngsborough, Massachusetts. From 1955 until 1967, town contractors operated a small municipal landfill on site. An individual purchased the property in 1967 and sold it to the Charles George Land Reclamation Trust in 1971. In 1973, the Massachusetts Division of Water Pollution Control issued a permit to the Trust to handle hazardous wastes as well as municipal and domestic refuse. In 1983, the Massachusetts Department of Environmental Protection (MassDEP) identified contamination in nearby residential wells and ordered site operators to close the landfill. EPA testing found volatile organic compounds and metals in soil, groundwater, air and sediment. The contamination was a result of leachate collection system failures, inadequate landfill cover material to prevent infiltration of precipitation, and landfill erosion. EPA added the site to the Superfund program's National Priorities List in 1983.

EPA supplied nearby residents with a temporary water supply, installed a security fence and gas vents at the landfill, and regraded the landfill to cover exposed refuse. After 1984, EPA provided residents with a permanent alternative water supply, collected and treated landfill leachate and gas, and addressed contaminated groundwater. EPA finished construction of the site's remedy in September 1998. MassDEP took over operation and maintenance responsibilities in 2009.



A view of completed installation of panels.



Ballast blocks installed to support solar panels on the site.

Redevelopment

In 2015, the town reached an agreement with Citizens Energy Corporation for a multi-million-dollar solar project at the site. Town officials recognized the project's importance as a way to generate tax revenue from the site. The company also agreed to pay some of the back taxes owed on the project's five parcels.

EPA oversaw project construction to ensure the remedy remained protective. For example, EPA ensured that no digging punctured the landfill's cap. Only low-ground-pressure vehicles were used during project construction and a survey program monitored pre- and post-construction elevations to address potential landfill settling.

Citizens Energy Corporation completed the project in December 2016. Today, the solar facility produces electricity for about 300 homes. The project offsets over 2,300 tons of carbon dioxide that would have been emitted using power from plants burning fossil fuels.

Contacts

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