

PLANNING THE FUTURE OF

For over half a century, the Hartford Landfill served as the city's main waste repository. In December, 2008, the landfill was closed to all further deposits. The Connecticut Resource Recovery Authority (CRRRA), which has been managing the facility since 1982, is now in the process of "capping" the landfill. Once this process is completed (see diagram), Hartford will have to decide the best use for this 124-acre site, which has access to both the Connecticut River and Interstate-91. Should it become a park? A wildlife sanctuary? A site for future commercial development? That question is currently being discussed among Hartford officials, city residents, CRRRA and other interested parties. While there are indeed many viable and attractive options, any decision of the future of the site must also take into account its unique history. CRRRA is taking numerous measures to ensure that the waste beneath the site is safely managed. These measures must be taken into account in any decision on future uses for the former landfill.

Landfill Post-Closure Community Advisory Committee

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Hartford Landfill: An Overview

- The Hartford Landfill has been used for waste disposal by the city since the 1940s
- CRRRA leased from city in 1982
- Waste Deliveries ended December 2008
- Lease ends when Landfill Closure Certified by DEP
- Easement Agreement then takes effect
- CRRRA responsible for Post-Closure Care
- The overall site consists of 124 acres; 96 acres are devoted to the operation of the landfill; actual disposal of waste took place in the 16 Acre Ash Area and the 80 Acre of Main Landfill

Environmental safeguards

- Synthetic Membrane
- Groundwater flow control system
- Ash-leachate collection system
- Groundwater monitoring program
- Landfill gas collection & control system
- Systems to function for decades after closure

Gas collection system

- 78 vertical gas wells, 4" HDPE pipe, perforated portion in the waste mass
- Connected to subsurface horizontal piping
- Centrifugal blower moves collected gas to control device for destruction
 - Two internal combustion

engine/generators rated @ 1.9 MW total

- Produce enough electricity to supply about 1,700 households
- Enclosed flare, minimum 98% destruction efficiency
- System handles 330MM scf per year of landfill gas
- Quarterly Reports to DEP
- Time frame of 7-10 years of useful electricity production remaining."

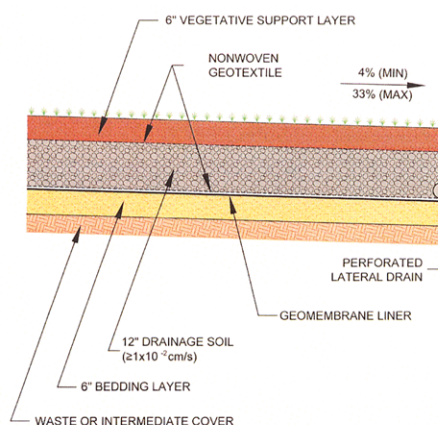
Water collection & treatment systems

- Groundwater Flow Control System
- 4 Groundwater Extraction Wells
- 10 Pairs of shallow monitoring wells
- Bentonite Clay Slurry Wall & Army Corps of Engineers Dike
- 90,000 gallons per day removed
- Permitted Discharge to Sanitary Sewer

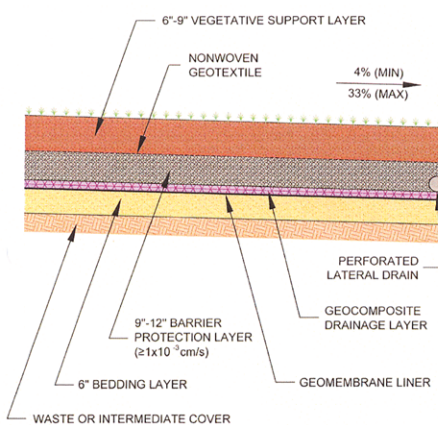
Ash Leachate Collection & Treatment

- Ash Area
- Collected from Primary & Secondary Liner

Geomembrane Cap Design Alternatives
Connecticut Resources Recovery Authority - Hartford Landfill



1 GEOMEMBRANE CAP WITH DRAINAGE SOIL
NOT TO SCALE



2 GEOMEMBRANE CAP WITH DRAINAGE NET
NOT TO SCALE



Two "Rules of Thumb" for Post Closure Planning

You can do nearly anything on a closed landfill, it is a matter of how much it will cost to do it.

It is generally more expensive to do something on a closed landfill than it is to do it on a undeveloped property.

- 60,000 gallon Above Ground Tank
- Neutralization
- Permitted Discharge to Sanitary Sewer
- Stormwater (Rainfall, Snowmelt)

Collection & Conveyance

- Minimize Infiltration of Stormwater
- Prevent Erosion of Landfill Cap
- 4 Discreet Stormwater Discharge Points

Groundwater & Surface Water Monitoring

- 24 Groundwater Wells Sampled Quarterly
- CT River, Decker's Brook, Meadow Brook
- Quarterly & Annual Water Quality Reporting to DEP

Post-Closure Land Surface Care

- Maintain Integrity of Landfill Cap
- Inspections
- Mowing
- Maintain Stormwater Swales

Considerations for Post Closure Planning

Physical Considerations

- Steep side slopes (3:1) over most of site
- Shallow slopes (20:1) on top only (36+6 acres)
- Very high (from elev. 20' to elev. 138')
- Visible and accessible from I-91

TIMELINE OF CLOSURE PROCESS

July 2007: Closure Activities Begin

December 2008: Last Shipment of Waste

June 2009: Close Remaining Ash Area

Spring 2010: Begin Closure on Final 33 Acres of Main Landfill

Summer 2011: Closure Complete & DEP Approval