



Dover Municipal Landfill

Dover, New Hampshire

U.S. EPA | HAZARDOUS WASTE PROGRAM AT EPA NEW ENGLAND



MAINTAINING AND MONITORING SUPERFUND

SITES: After a Superfund Site or portion of a Superfund Site has been cleaned up, EPA continues to monitor the site to ensure the cleanup is operating effectively over time. Five-Year Reviews provide an opportunity to fully evaluate the implementation and performance of a cleanup and determine whether it remains protective of human health and the environment.

INTRODUCTION:

This, the First Five Year Review for Dover Municipal Landfill Superfund Site was completed on September 25, 2017. The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. FYR reports identify issues found during the review, if any, and documents recommendations to address them.

BACKGROUND

The Dover Municipal Landfill site is a 50-acre inactive landfill in Dover, New Hampshire. Owned and operated by the City of Dover from 1960 until its closure in 1980, the landfill accepted domestic and industrial waste. Facility operations contaminated groundwater with volatile organic compounds (VOCs) and arsenic. After initial actions to protect human health and the environment, the site's long-term cleanup and monitoring are ongoing. On September 8, 1983 the Site was listed on the National Priority List (NPL). A remedy was selected in September, 1991 for source control, and management of migration. Remedial action started on September 11, 2008 and construction was completed September 6, 2012.

PROGRESS TOWARD CLEAN-UP

Initial closure activities were completed in 1980 and included placing clean fill over the existing landfill surface, and in 1982 and 1983 installing a water line to residences along Tolend Road and other areas near the site, the landfill does not currently present an immediate risk to these nearby residents. More than 41,000 pounds of contaminants were removed from groundwater in the northwest portion of the landfill and 14 pounds of contaminants were removed from the aquifer in the southern plume. Groundwater extraction began in February 2012; the system removes between 70 and 100 gallons of contaminated groundwater from the landfill area every minute. Monitoring will continue to make sure contaminants are being intercepted and are declining in areas outside of the landfill. Institutional controls to prohibit the use of groundwater are in place.

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RECOMMENDATIONS FROM THIS REVIEW

The remedy currently protects human health and the environment because: the operation of the groundwater extraction system is facilitating the treatment of contaminants in the landfill and their subsequent destruction; the existing soil cap and vegetation on top of the landfill plus the fences in place, currently prevent direct contact with and ingestion of contaminated solid waste materials present in the landfill. EPA is aware of several emerging contaminants including 1,4-dioxane and PFA compounds that in the future may be considered COCs. These changes are not expected to impact the protectiveness of the remedy because there is no exposure to contaminated groundwater, ICs are in place to prevent such exposure, and extraction and treatment of contaminated groundwater are ongoing. For the remedy to be protective in the long-term recommendations are offered. Additional site characterization and monitoring to determine if the Southern Plume is migrating to the Bellamy reservoir is recommended;

vertical profiling of groundwater downgradient of MW-2001 to characterize the Southern Plume, install additional monitoring wells if needed, and determine if the extraction system for the Southern Plume needs to be reactivated. The plume of contamination within the Northwest VOC Hotspot area is not completely delineated. Vertical profiling is recommended to fully characterize groundwater contamination in the Northwest VOC Hotspot area, and install permanent monitoring wells, as needed, to assess natural attenuation and contaminant migration. The presence of PFAS has not been confirmed at the Site. Since PFA have been widely used since the 1940s in industrial application and in consumer products, they are known to be stable, persistent, and bioaccumulative in the environment, and since the Site is an unlined landfill that accepted municipal and industrial waste, testing for their presence is warranted.

FACT

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