

Situation Assessment

South Dayton Dump and Landfill Site



South Dayton Dump and Landfill Site
Moraine, Ohio
December 2011

U.S. EPA Region 5

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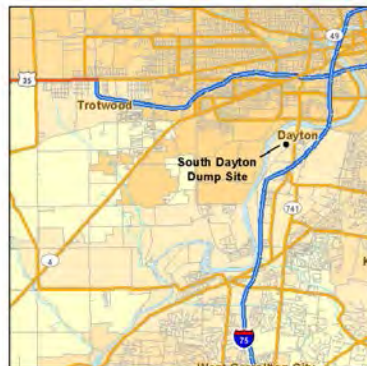
Forward

EPA's primary responsibility at Superfund sites is to ensure the protection of human health and the environment. Consideration of a site's potential future use is an important part of this responsibility under the National Contingency Plan (NCP). The Superfund Redevelopment Initiative (SRI) was created by EPA in 1999 to help communities and stakeholders in their efforts to return environmentally impaired sites to protective and productive use. Conducting a reuse assessment that engages site owners and other stakeholders in evaluating future use options for a site can help facilitate site stewardship and support the long-term effectiveness of the remedy.

Executive Summary

The South Dayton Dump and Landfill Site (Site) occupies an approximately 80-acre area in Moraine, Ohio. The Site was proposed for the National Priorities List (NPL) in 2004, but has never been listed. It is a PRP-lead site composed of two operable units (OUs), and remedial investigations are ongoing. EPA is currently completing the PRP's Remedial Investigation/Feasibility Study Report for OU1; investigation for OU2 is expected to start in 2012.

The Site is located at 1975 Dryden Road, along a commercial and industrial corridor in the City of Moraine. A number of commercial and industrial businesses are currently operating on site. The following document compiles relevant information regarding land use and remediation strategies to assist in the evaluation of continued uses and potential future uses for the Site. Given the zoning, the history of operations, thriving present-day businesses many of which have been operating for years, and prevailing interest in maintaining current uses, the reasonably anticipated future uses of the site are likely to remain commercial and industrial use. Maintaining the viability of the current businesses on the Site is critically important to the local economy.



Site Location Map

Introduction

At the request of EPA Region 5, Skeo Solutions conducted a situation assessment for the South Dayton Dump and Landfill Superfund Site in Moraine, Ohio to identify reasonably anticipated future land use for the Site, and continued use and future use considerations that may inform the remedial process.

The situation assessment included document review, preliminary information gathering calls, a site visit and a series of facilitated meetings with City of Moraine representatives, site owners and site operators on March 8, 2011. The purpose of the meetings and site visit was to discuss continued use and future use goals for the property, to identify relevant planning initiatives for the area, and to outline preliminary considerations, opportunities and challenges for continued and future uses at the Site.

This document summarizes these continued use and future use considerations. A detailed technical evaluation of cleanup alternatives and relevant laws and regulations will be conducted as part of the process for writing the Remedial Investigation/Feasibility study documents.

At a Glance: Site Info

Location: Moraine, Ohio

Size: approximately 80 acres

Remedial Phase: Remedial Investigation / Feasibility Study

Lead: PRP

Site Contamination: Landfill material, soil, groundwater and soil vapor contamination resulting from former landfill use

EPA RPM: Karen Cibulskis

EPA Reuse Project Coordinator: Brad Bradley

Meeting Participants included:

Karen Cibulskis, Remedial Project Manager, EPA Region 5
Tom Bloom, R5 Reuse Coordinator, EPA Region 5
Brad Bradley, Site Reuse Coordinator, EPA Region 5
Patti Krause, Community Involvement Coordinator, EPA Region 5
Laura Marshall, Ohio Environmental Protection Agency
Miranda Maupin, Skeo Solutions
Sarah Malpass, Skeo Solutions

Potential Responsible Parties Representative

Chris Athmer, Terran, Consultant for the Participating PRPs

Local Government Representatives

Charles Hought, City Engineer, City of Moraine
Doug Hatcher, Fire Department, City of Moraine
Tony Trick, Fire Department, City of Moraine
Michael Davis, Director of Economic Development, City of Moraine
Mike Hammes, City Planner, City of Moraine

Roxanne Farrier, Miami Conservancy District¹

Bruce Pletsch, Miami Conservancy District¹

Site Owner Representatives

Roxanne Farrier, Miami Conservancy District

Bruce Pletsch, Miami Conservancy District

Ronald Barnet, Barnett Brothers Construction²

Mark Fornes, Mark Fornes Realty, Property management for Grillot and Boesch

Tina Ortiz, Mark Fornes Realty, Property management for Grillot and Boesch

Tim Hoffman, Dinsmore and Shohl, Counsel for Grillot and Boesch

James Mitchell, Dinsmore and Shohl

David Coniglio, Human Resource Director, Valley Asphalt Corporation²

Jim Worley, Jim City Auto Salvage²

Site Operator Representatives

Skip Freeze, S&J Precision, Inc.

John Haymaker, S&J Precision, Inc.

Bruce Mangeot, B&G Equipment

Glen Middleton, Middleton Trucking

History of the Site

The Site, located at 1975 Dryden Road, occupies approximately 80 acres to the west of the intersection of Dryden Road and East River Road in the City of Moraine, Ohio. Of the 80 acres, 15 acres are part of a quarry pond. The site is adjacent to the Great Miami River as well as the Great Miami River Recreation Trail.

The South Dayton Dump, a former quarry, operated from 1941 to 1996 and accepted solid waste, including industrial and municipal waste. As areas of the landfill were filled, property along Dryden Road and East River Road was graded and sold or leased to local businesses. In addition to landfill operations, industrial activities were also conducted at the Site, e.g. solvent and oil recycling, automotive salvage, metals fabrication, heavy equipment manufacturing, asphalt production and underground storage tanks. Today, a significant portion of the site is in continued use, primarily by commercial and industrial businesses.

Contaminated landfill material, soil, groundwater and soil vapor have been found at the Site. Contaminants of concern in the soils include metals and organic compounds. Contaminants of concern in the groundwater include vinyl chloride, TCE, 1,2-dichloroethene and other volatile organic compounds (VOCs). Contaminants of concern in soil vapor include VOCs and methane. Sediment in the Quarry Pond contains PCBs and pesticides. Sediment in the Great Miami River, adjacent to the Site, contains pesticides, mercury and semi-volatile organic compounds and will be investigated further.

¹ Site owner

² Site owner and operator

The South Dayton Dump and Landfill Site was proposed for the National Priorities List (NPL) in 2004, but has never been listed. It is a PRP-lead site and is composed of two operable units (OUs), which are described below.

- OU1: OU1, located on the northern portion of the site, is approximately 55 acres and contains higher levels of contamination. Approximately 40% of OU1 is in continued use.

EPA is currently completing the PRP's Remedial Investigation/Feasibility Study Report (RI/FS) for OU1. Following approval of the RI/FS, a Proposed Plan may be available for public comment as early as March 2012. EPA is considering remedial alternatives that include use of existing buildings as part of a cap. EPA is also investigating the possibility of using Modified Asphalt Technology for Containment (MatCon™), which could support parking and light industry. MatCon™ has a special amendment that increases flexibility, to allow for potential settlement, and is highly impermeable.

If passive venting is incorporated into the cleanup, access may be restricted around system components. Restricted access to areas around system components or to the undeveloped areas of the site as a whole could limit reuse opportunities in the affected areas. Reuse considerations will be one of the factors considered when determining the locations and types of passive vents.

Property restrictions, including land use, soil handling, and excavation restrictions, may be considered for properties on the Site.

- OU2: OU2 includes the remaining 25 acres of the southern portion of the Site, as well as the groundwater plume. Investigation for OU2 is expected to start in 2012.
- A vapor intrusion study is planned for the site to determine whether VOCs and methane gas found in the soil could cause vapor intrusion into buildings on the site.

See the adjacent page for a map of the Site boundary, OU1 boundary and lot numbers.



Site features include monitoring wells, an electrical line, and a quarry pond as well as both developed and undeveloped land on top of the landfill area.

Land Use Considerations

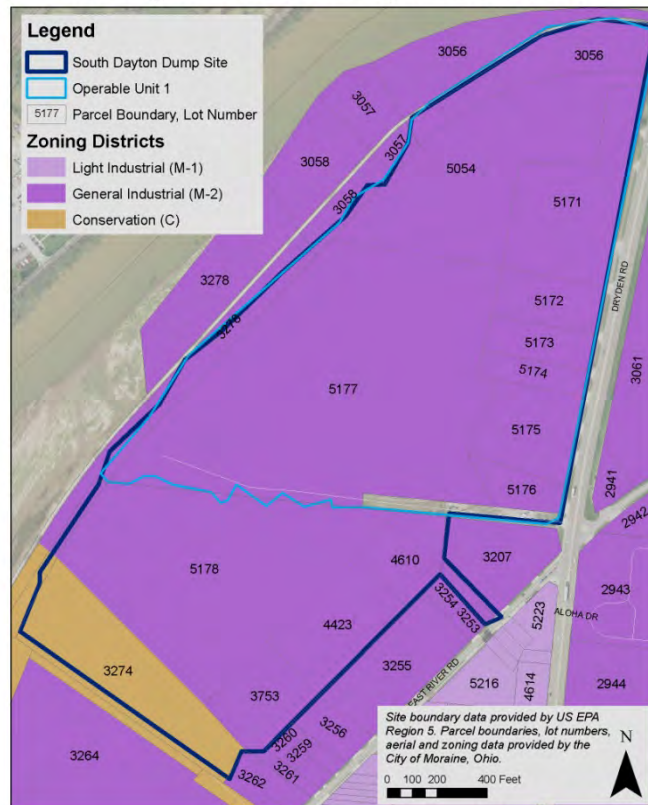
Below is a set of considerations regarding existing site conditions and relevant planning initiatives.

- **Ownership:** Property on the Site is owned by a number of entities including the Miami Conservancy District, Grillot and Boesch, Barnett Brothers Construction, Valley Asphalt Corporation and Jim City Auto Salvage.
- **Existing Land Use:** A significant portion of the property along Dryden Road and East River Road is in continued use by commercial and industrial businesses including: S&J Precision, Inc., B&G Equipment, Middleton Trucking, Sim Trainer and the site owners listed previously. Land owned by MCD is preserved floodplain, which is used for flood conveyance for the Great Miami River and in some cases as a recreational corridor for the Great Miami River Recreation Trail.
- **Adjacent Land Use:** The city owns a 19-acre parcel south of the Site, which is being reserved for future industrial development. Several residences are within 200 feet of the landfill along East River Road, and a trailer park is 200 feet from the landfill east of Dryden Road. Additionally, the Great Miami River Recreation Trail is adjacent to the Site.
- **Zoning:** The majority of the Site is zoned M-2 (General Industrial) with one parcel on the southern edge of the site zoned C (Conservation). The city has a pyramid zoning structure which allows less intense uses, such as residential, to take place in areas zoned for more intensive uses, such as industrial. Pyramid zoning does not apply to the Conservation zone.

Given the pyramid zoning structure that applies to much of the Site, city staff suggested that the city might consider creating an overlay district for the Site to reinforce any institutional controls, such as deed restrictions, that may be implemented on site in the future.

- **Comprehensive Plan:** The City of Moraine is operating under the 1995-2015 Comprehensive Plan. City staff noted that the Record of Decision for the Site could inform the upcoming Comprehensive Plan update.
- **Great Miami River and flood zone:** As noted above, the Site is adjacent to the Great Miami River. Part of the landfill is within the floodway and more than half of the landfill is within the 100-year floodplain. The city requires buildings within the flood zone to be one foot above the

Zoning at the South Dayton Dump Site



flood elevation or to provide alternative flood proofing measures.

The site tour took place after significant rainfall in the area. Tour participants observed that the Great Miami River had risen significantly, covering part of the Great Miami River Recreation Trail. Additionally, water from the Quarry Pond was overflowing into adjacent low-lying areas on the Site. MCD indicated that these river conditions can be expected periodically.



The Great Miami River and Great Miami River Recreation Trail are adjacent to the Site. At the time of the site visit, recent rains had caused the river to cover parts of the trail.

Meeting participants later in the day reported that, within recent memory, Quarry Pond overflow has impacted adjacent properties bordering the southern part of the Site.

- *Great Miami River Recreation Trail:* The Miami Conservancy District (MCD) owns and operates the Great Miami River Recreation Trail, which is located between the Site and the Great Miami River. MCD has no current plans for trail improvements.
- *Landfill Embankment:* MCD staff noted that their engineer would likely have grading and engineering design considerations for remedial work along the landfill embankment. City staff and MCD staff recommended that the landfill embankment be designed and constructed as a levee-type embankment.
- *Utility Locations:* The site has two active, above-ground electrical lines running through OU1. A natural gas supply line is located adjacent to the bottom of the embankment.

Storm Water Management Considerations

Below is a set of considerations regarding storm water management:

Miami Conservancy District (MCD)

- MCD representatives expressed concern about how clean up might affect flood protection measures along the river. If the embankment moves closer to the river during remedial work, MCD would require a Hydrologic Engineering Center-River Analysis System (HEC-RAS) study modeling storm water elevations at a design discharge of 120,000 cfs for both the existing and proposed embankment locations. The representatives offered to have the MCD engineer coordinate with the remedial contractor.
- MCD does not have jurisdiction over grade changes within the Site itself.

City of Moraine

- City staff expressed a preference that the embankment be reinforced to levee standards if disturbed during remedial work. City staff also expressed concern regarding potential impact of a large impermeable cap on storm water.

- The city regulates the 100-year floodplain and would like to see flood modeling done for proposed grading changes within the site. Modeling should include 10-year, 50-year and 100-year simulated elevations and consider impacts to existing structures.
- The city does not have storm water regulations that would require storm water to be contained on site; runoff could flow directly to the river. However, the city would require that the quality of the runoff meet environmental standards and that the channel be modeled to make sure the flood profile is not affected.
- The city suggests creating a buffer zone (e.g. grassy swales) just off the property to collect runoff contaminants before they reach the river.

Additional Considerations

- According to FEMA maps, approximately 10% of the Site is within the floodway. Changes in grading on the site may require the property owner to apply for a map amendment with FEMA. If needed, the property owner would apply as part of the design process, showing the final planned elevations.
- The city suggests contacting Mike Hanke with FEMA R5 in Chicago for further information about what actions may trigger the map amendment requirement.

Stakeholder Considerations

Below is a set of considerations based on discussions with several key stakeholders who were available during the site visit, including local government representatives as well as site owner and operator representatives.

City of Moraine

- *Preserving Existing Businesses:* City staff emphasized that their immediate priority for the Site is to achieve a measure of assurance against displacement for the current business owners.
- *Economic Development:* The city's current economic development efforts are focused on retention of existing businesses. The city strongly supports continued operation and expansion of existing businesses on Site and would be pleased to see additional development potential on the Site preserved. Current efforts are focused on supporting reinvestment of existing businesses. Future development at the Site could take the form of an industrial campus setting.
- *Recreation:* City staff shared that the city has sufficient park land and recreational opportunities in other areas of the city and would not be interested in absorbing additional property into the Parks Department maintenance budget.
- The city supports a 3:1 slope of turf grass cover for the final embankment.
- *Communication:* The city would like to be made aware of EPA contractors operating on Site. The city often receives calls from area businesses with questions about activities on site and would like to be able to provide callers with up-to-date information about the dates and names of contractors who may be involved with investigation and cleanup on Site.

- *Tools for Reuse:* The city would like to better understand tools available through EPA for supporting continued use and reuse at the Site including: delisting, Ready for Reuse documentation (RfR), the Bona Fide Prospective Purchaser provision (BFPP), and the Site Wide Ready for Anticipated Use measure (SWRAU).

Miami Conservancy District

- *Trail Improvements:* Although MCD has no existing plans for improvements along the trail, staff noted that other groups sometimes volunteer to install way stations along the trail.
- *Slope:* MCD would prefer a 3:1 slope for the final embankment with a turf grass cover for easy maintenance. A 2.5:1 slope would also be acceptable.
- *Venting:* If a passive venting system is installed on the landfill and restricted access is required, MCD suggests either fencing off individual components or installing fencing along the top of the embankment (rather than the bottom) for ease of maintenance.
- *Potential Odors:* MCD does not anticipate that potential odors from the passive venting system will affect the trail users' experience, assuming that the vapors from the system rise and dissipate as opposed to sinking and settling in the trail area.
- *Ownership:* MCD is not interested in owning additional property at the site.

Grillot and Boesch

Grillot and Boesch are two property owners who own a significant number of parcels on the site either jointly or separately. Historically, members of these families operated the landfill and later sold or leased portions of the site to commercial and industrial businesses as the landfill was filled.

Considerations for specific properties owned by Grillot and Boesch include:

- *Lots 5171, 5172, 5173, 5174 and 5175:* Buildings on these lots are leased to commercial and industrial business and are managed by Mark Fornes Realty. Grillot and Boesch would like to ensure minimal interruption to tenants during clean up and are opposed to relocation of businesses off-Site.
- *Lots 5176 and 5177:* Grillot and Boesch intend to develop these properties. Discussions have taken place between Grillot and Boesch and Valley Asphalt regarding the potential of Valley Asphalt to expand operations into these parcels. Valley Asphalt already leases part of 5177 for materials storage.



Businesses located on the Site along Dryden Road.

Grillot and Boesch are concerned that a traditional solid waste cap might prevent development and expressed interest in remedy options that preserve development potential and support the type of tilt-up construction that has taken place along I-75.

- *Lot 5178:* This parcel contains part of the Quarry Pond and is adjacent to another parcel owned by MCD. Grillot and Boesch are open to the possibility of transferring this parcel to MCD if there is interest. They suggest continued use of this parcel for water retention.
- *Utility Locations:* Sewer and water that runs along Dryden Road would need to be extended to the inner portions of the property to support development.

Valley Asphalt

- *Use:* Valley Asphalt is an asphalt recycling company which has operated on the Site since the mid-20th century. The site started as the company's base of operations and continues to function as an important satellite site for the company. Valley Asphalt typically has 5-6 employees on their property on a daily basis as well as customers who are in and out six days a week.
- *Location:* The location of the Site is integral to Valley Asphalt's business. The Site's proximity to the interstate allows Valley Asphalt to produce recycled asphalt for local municipalities at a competitive price because of the reduced cost of transport.



Site tour participants walk through Valley Asphalt's materials storage area.

- *Loads:* Valley Asphalt follows State of Ohio regulations regarding truck loads. The maximum truck load in Ohio is 80,000 lbs. Special permits can be obtained for loads up to 200,000 lbs, but this would usually be for special long-distance trips on an interstate. Valley Asphalt suggests constructing the proposed asphalt part of the cap to the standard State of Ohio maximum load specifications.
- *Investment:* Valley Asphalt recently constructed the first LEED Gold certified asphalt plant at one of its facilities near Cincinnati. Valley Asphalt would like to undertake similar improvements and beautification projects at the South Dayton Dump and Landfill location, but is waiting for assurance from EPA that businesses currently operating on the property will not be required to relocate due to remedial work at the Site. Investments could potentially involve reconfiguring the Site layout to maximize use.
- *Expansion:* Valley Asphalt has had conversations with Grillot and Boesch in the past about the possibility of expanding operations onto adjacent parcels.
- *Asphalt Production:* Valley Asphalt is interested in exploring whether MatConTM asphalt is something that could be produced on Site.
- *Potential for Beneficial Reuse of Water:* Valley Asphalt has other sites which support concrete-related processes that use a significant amount of water. Given the right economic conditions, Valley Asphalt might consider similar uses at the South Dayton Dump and Landfill Site, which could take advantage of excess storm water at the Site.

B&G Equipment

- B&G Equipment has operated on Site for 20 years and has no plans to move its operations, which include truck repair and the use of heavy equipment moving loads of up to 60,000 lbs.

Barnett Brothers Construction

- Barnett Brothers maintains storage space on Site, including two barns that are self-occupied. These barns house construction equipment such as a trailer, bobcat and backhoe.

S&J Precision

- S&J Precision has operated on the Site for 13 years on the north side of lot 5172. They are in the process of expanding within the building they currently lease. Expansion plans include both machinery and staff.
- S&J Precision would like no interruptions to business during cleanup. If temporary or permanent relocation becomes necessary, the company would like to receive relocation assistance.

Jim City Auto Salvage

- *Flooding:* Owner Jim Worley recalls significant flooding in 2005 that resulted in overflow from the Quarry Pond on to his property. He expressed concern about an increase in flooding if an impermeable cap is installed on OU1.
- *Asphalt Cap Maintenance:* Jim City Auto Salvage would like to understand what entity would be responsible for maintaining the asphalt cap and what happens if the cap gets punctured. The company would also like to better understand what access agreements may be necessary for installation and maintenance of the remedy.

In addition to the above considerations, meeting participants report that local residents have historically used the Quarry Pond for fishing and swimming and continue to do so at present. Concern was expressed regarding the safety of these activities.

Continued Use and Future Use Considerations

Based on the above considerations, Skeo Solutions has compiled the following list of considerations for continued use and future use at the Site:

- Given the zoning, the history of operations, thriving present-day businesses and prevailing interest in maintaining current uses, the reasonably anticipated future use in continued use areas of the site is likely to remain commercial and industrial use and that future use in other areas of the site will need to be consistent with the remedy.
- Maintaining the viability of the current businesses on the Site is critically important to the local economy. Releasing a Proposed Plan and ROD will be critical milestones for assuring business owners that their businesses will not be relocated during clean up. Remedial design, access agreements and timing could be coordinated with site owners and tenants to minimize disruption.

- Cap design may need to consider:
 - Loading capacity and durability to endure the heavy loads and intense use (such as front loaders) during the duration of the cap.
 - Grading around current businesses to maintain access to and ensure drainage away from existing buildings.
 - Materials (such as soil and vegetation) that minimize stormwater runoff.
 - Appropriate stormwater management including discharge locations and methods (given the overflow of the Quarry Pond on to the site during heavy rain) and potential mitigation.
 - Potential for triggering a FEMA map amendment requirement depending on the impact of final grading on the floodway.
- Landfill embankment may need to be designed and constructed to levee specifications and could consider maintaining the habitat and aesthetic value along the Great Miami River Recreation Trail.
- Fencing around venting system and other remedial components could be designed to support current and future use as well as maintenance activities.
- The risk assessment and remedy options for the Quarry Pond may need to consider swimming and consumption of fish.

Recommendations and Next Steps

The Site is well-positioned for commercial and industrial continued use and may have potential for commercial or industrial future use, depending on the remedy selected. A full reuse assessment for the Site seems unnecessary, at this time, since the municipality and businesses involved have a clear understanding of desired future uses and the Site's potential for development; however, the City of Moraine, local businesses, EPA Region 5 and the Miami Conservancy District could benefit from continued communication regarding:

- Potential asphalt technologies under consideration at the Site,
- Drainage management and discharge options,
- The remedial timeline, remedial actions and access agreements,
- Technical considerations for the landfill embankment adjacent to the Great Miami River, and
- Opportunities for reducing potential Superfund-related stigma at the Site, including provision of materials on SWRAU, RfR, BFPP and the delisting process to the City of Moraine.

Federal, State and Local Contacts

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