

**FIFTH FIVE-YEAR REVIEW REPORT  
ASBESTOS DUMP SUPERFUND SITE  
OPERABLE UNIT 1 AND OPERABLE UNIT 2  
Millington/Meyersville, Morris County, New Jersey**



**Prepared by**

**U.S. Environmental Protection Agency  
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## Table of Contents

LIST OF ABBREVIATIONS & ACRONYMS .....	2
I. INTRODUCTION .....	3
FIVE-YEAR REVIEW SUMMARY FORM.....	4
II. RESPONSE ACTION SUMMARY .....	5
Basis for Taking Action.....	5
Response Actions.....	5
System Operations/Operation & Maintenance .....	6
III. PROGRESS SINCE THE LAST REVIEW .....	7
IV. FIVE-YEAR REVIEW PROCESS .....	8
Community Notification, Involvement & Site Interviews.....	8
Data Review.....	8
Site Inspection.....	9
V. TECHNICAL ASSESSMENT .....	10
QUESTION A: Is the remedy functioning as intended by the decision documents? .....	10
QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid? .....	10
QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?.....	12
VI. ISSUES/RECOMMENDATIONS .....	12
OTHER FINDINGS .....	12
VII. PROTECTIVENESS STATEMENT .....	12
VIII. NEXT REVIEW .....	13
APPENDIX A – MAPS .....	14

## **LIST OF ABBREVIATIONS & ACRONYMS**

ACM	Asbestos-containing material
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FYR	Five-Year Review
FWS	Department of the Interior's U.S. Fish and Wildlife Service
GSNWR	Great Swamp National Wildlife Refuge
LSRP	Licensed Site Remediation Professional
MCL	Maximum Contaminant Level
MFL	million fibers per liter
MW	Monitoring Wells
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NGC	National Gypsum Company
NJDEP	New Jersey Department of Environmental Protection
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
RA	Remedial Action
RAO	Remedial Action Objectives
RPM	Remedial Project Manager
ROD	Record of Decision
RPM	Remedial Project Manager
UU/EE	Unlimited use and unrestricted exposure

## **I. INTRODUCTION**

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. The methods, findings, and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Section 300.430(f)(4)(ii)), and consistent with EPA policy.

This is the fifth FYR for the Asbestos Dump Superfund Site (Site). The triggering action for this review is the September 18, 2015 completion date of the previous FYR for the Site. This FYR has been prepared due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of three remedial phases, or operable units (OUs). Operable Unit 1 (OU1) and Operable Unit 2 (OU2), which are evaluated in this FYR, address contaminated soil, groundwater, surface water and sediments. The FYR for Operable Unit 3 (OU3) is being prepared by the Department of the Interior's U.S. Fish and Wildlife Service (FWS) as a separate report.

The Site's fifth FYR team included Mazeeda Khan, EPA (remedial project manager), Rachel Griffiths, EPA (hydrologist); Marian Olsen, EPA (human health risk assessor); Charles Nace EPA (ecological risk assessor); Amelia Wagner, EPA (attorney); and Pat Seppi, EPA (community involvement coordinator). The New Jersey Department of Environment Protection (NJDEP) and OU1's Licensed Site Remediation Professional (LSRP), EMMA, were notified of the initiation of the FYR. The review began on 10/3/2019.

### **Site Background**

The Site is located in Millington and Meyersville, Morris County, New Jersey. OU1 consists of the "Millington property" which is an 11-acre commercial property located at 50 Division Avenue in Millington, New Jersey. OU2 includes the "New Vernon Road" and "White Bridge Road" properties. The OU2 New Vernon Road property is located at 237 New Vernon Road in Meyersville, Long Hill Township, New Jersey. It consists of approximately 30 acres of land and is currently bounded by the Great Swamp National Wildlife Refuge (GSNWR) to the north, tracts of wooded and wetland areas to the east and south, and New Vernon Road to the west. The OU2 White Bridge Road property is located at 651 White Bridge Road in Long Hill Township, New Jersey. It is approximately two miles away from the New Vernon Road property and consists of approximately 12 acres of land, as well as the adjoining property, which is part of the GSNWR, in Meyersville, New Jersey. Maps of OU1 and OU2 with sampling locations may be found in Appendix A.

Manufacturing of asbestos-containing material (ACM) began at the Millington property in 1927 by Asbestos, Ltd., which engaged in the fiberization and sale of asbestos until 1946. While the property had changed ownership over the years, ACM continued to be produced until 1975 when the plant was closed by the National Gypsum Company (NGC), the owner at the time. During the period in which the asbestos manufacturing facility was in operation, asbestos-containing waste was disposed of on the Millington property. This included a 330-foot by 75-foot area (referred to as the asbestos mound) where predominantly asbestos fibers, siding and roofing material were disposed. When the Millington property

reached its capacity for on-site disposal, asbestos-containing waste materials were disposed of at the New Vernon Road, White Bridge Road, and the Dietzman Tract (OU3) properties.

Asbestos was found in the form of broken tiles, siding and fibers at the Site. Asbestos was not detected above the current federal Maximum Contaminant Level (MCL) of 7 million fibers per liter (MFL) in the surface water and groundwater samples at OU1 and OU2.

For more details related to the Site background, physical characteristics, geology/hydrogeology, and land/resource please see the documents found in the Site repositories or at <https://www.epa.gov/superfund/asbestos-dump> (see section on webpage titled Site Documents and Data).

### **FIVE-YEAR REVIEW SUMMARY FORM**

<b>SITE IDENTIFICATION</b>		
<b>Site Name:</b> ASBESTOS DUMP SUPERFUND SITE		
<b>EPA ID:</b> NJD980654149		
<b>Region: 2</b>	<b>State:</b> NJ	<b>City/County:</b> Millington, Meyersville/Morris County
<b>SITE STATUS</b>		
<b>NPL Status:</b> Deleted		
<b>Multiple OUs?</b> Yes	<b>Has the site achieved construction completion?</b> Yes	
<b>REVIEW STATUS</b>		
<b>Lead agency:</b> EPA <i>[If "Other Federal Agency", enter Agency name]:</i>		
<b>Author name (Federal or State Project Manager):</b> Mazeeda Khan		
<b>Author affiliation:</b> United States Environmental Protection Agency		
<b>Review period:</b> 6/2/2015 – 5/29/2020		
<b>Date of site inspection:</b> 12/3/2019		
<b>Type of review:</b> Statutory		
<b>Review number:</b> 5		
<b>Triggering action date:</b> 9/18/2015		
<b>Due date (five years after triggering action date):</b> 9/18/2020		

## II. RESPONSE ACTION SUMMARY

### **Basis for Taking Action**

The 1988 OU1 Record of Decision (ROD) qualitative risk assessment was written at a time when risk assessment guidance was still being developed. The risk summary indicated that remedial actions, such as capping ACM, was necessary to prevent exposure to potential airborne asbestos.

The 1991 OU2 ROD quantitative risk assessment indicated that the cumulative upper bound risks associated with potential exposures to maximum asbestos concentrations in air at the New Vernon Road and White Bridge Road properties were  $1 \times 10^{-2}$  or a cancer risk of one in one hundred and  $3 \times 10^{-3}$  (one in a thousand), respectively. This exceeded the acceptable risk range of  $10^{-4}$  to  $10^{-6}$  (one in ten thousand to one in a million). Therefore, remedial actions were warranted.

Based on the risk assessments for OU1 and OU2, airborne asbestos was identified as the primary source of asbestos exposure. Therefore, the main objectives of the remedies for OU1 and OU2 were to contain the migration of asbestos-containing material, to eliminate exposure pathways that could present unacceptable risks and to conduct long-term monitoring of groundwater, surface water and sediments.

An ecological risk assessment was also conducted and indicated that ecological risks associated with sediment and surface water were not significant.

### **Response Actions**

#### **OU1 Response Selection**

EPA issued the OU1 ROD on September 30, 1988. The major components of the OU1 remedy are:

- Installation of a two-foot soil cover on areas of exposed or minimally covered asbestos;
- Installation of a chain-link security fence to restrict access to the asbestos mound;
- Construction of slope protection/stabilization measures along the asbestos mound embankment;
- Construction of surface runoff diversion channels on top of the asbestos mound;
- Operation and maintenance of the remedy;
- Long-term monitoring;
- Institutional controls to restrict on-site groundwater usage and limit development on the asbestos fill areas; and,
- Treatability studies of technologies for permanent destruction or immobilization of asbestos.

#### **OU2 Response Selection**

EPA issued the OU2 ROD on September 27, 1991, selecting the remedial actions (RAs) for both the New Vernon Road property and the White Bridge Road property (collectively, designated OU2). The major components of the OU2 remedy are:

- *In-situ* solidification/stabilization of asbestos-contaminated soils;
- Appropriate environmental monitoring to confirm the effectiveness of the remedy; and,
- Implementation of institutional controls to restrict future subsurface activities and assure the integrity of the treated waste.

The RAO was to control the migration of asbestos.

## **Status of Implementation**

On October 20, 1993, EPA issued an Explanation of Significant Differences (ESD) which modified the OU2 ROD remedy. The ESD documented the change in solidification/stabilization depth and called for the solidified/stabilized mass to be constructed above the groundwater table.

Mobilization activities for the OU1 remedy began on June 17, 1999, and included the delivery of general materials, initiation of soil erosion and sediment control measures, and clearing and grubbing activities. The primary remedial construction activities included, but were not limited to, the following:

- Access road construction - completed in November 1999;
- Retaining wall construction for slope stabilization - completed in May 2000; and,
- Cap construction operations and site restoration - completed in May 2000.

The final RA Report for OU1 was issued by EPA in September 2001. EPA also conducted treatability studies to fulfill the OU1 ROD requirement for evaluating innovative treatment technologies that may be effective in permanently remediating asbestos. EPA elected to keep the containment remedy and not pursue options for solidification/stabilization at OU1.

In February 2002, EPA deleted the White Bridge Road property of the Asbestos Dump Superfund Site from the National Priorities List (NPL). The remaining portions of the Site, including OU1, OU2 New Vernon Road property and OU3, were deleted in July 2010.

## **IC Summary Table**

**Table 1:** Summary of Planned and Implemented ICs

<b>Media, engineered controls, and areas that do not support UU/UE based on current conditions</b>	<b>ICs Needed</b>	<b>ICs Called for in the Decision Documents</b>	<b>Impacted Parcel(s)</b>	<b>IC Objective</b>	<b>Title of IC Instrument Implemented and Date (or planned)</b>
Soil	Yes	Yes	OU1, OU2	Maintain structural integrity of Landfill cap for OU1, limited subsurface use OU2	OU1 Deed Notice October 2019 Deed Notice July 2002 for OU2 New Vernon Rd., Deed Notice January 2001 for OU2 Whitebridge Rd.

## **System Operations/Operation & Maintenance**

### **OU1**

In September 2001, EPA approved the 30-Year Operation and Management (O&M) Plan, which was provided to NJDEP, who is responsible for O&M activities. In November 2017, NJDEP transferred the responsibility for O&M activities to the new owner of the property, Prism Millington, LLC, through an NJDEP Administrative Consent Order. The O&M activities include periodic inspections be conducted of all OU1 design components including the retaining wall, perimeter access fence, capped area.

Mowing/pruning of the ACM cover and surrounding areas are performed regularly. In addition, the O&M Plan calls for groundwater sampling to be conducted once every five years and surface water and sediment sampling of the Passaic River to be conducted twice every five years. O&M activities are ongoing and are performed by the PRISM through their LSRP with NJDEP oversight.

#### OU2 New Vernon Road

The O&M Plan for the New Vernon Road property was finalized in June 2001 and is implemented by NJDEP. The overall objective of the O&M Plan is to provide for periodic inspection, maintenance, and monitoring to evaluate and maintain the effectiveness of the remedy implemented at this property. The maintenance of the landfill cap and perimeter infiltration trench, and environmental monitoring, are the key components of the O&M Plan. The 2002 Deed Notice does not permit any disturbance of the surface or subsurface of the capped area including, but not limited to filling, drilling, excavation, or the removal of topsoil, sediments, rock or minerals, or by construction, planting anything other than grass or wildflowers, or changing the topography in any manner; however, topsoil may be added to make repairs in accordance with the Deed Notice. Changing, damaging or removing the perimeter trench around the solidified mass, the manholes or the monitoring wells is also prohibited. Environmental monitoring includes the collection and analysis of groundwater which is conducted once every five years.

#### OU2 White Bridge Road

An O&M Plan was developed for the White Bridge Road property in July 2001. The O&M Plan includes the maintenance and monitoring of property features including the landfill cap, perimeter infiltration trench, and environmental monitoring. O&M obligations are shared between both the property owners and NJDEP. Property owners are largely responsible for mowing and maintaining the capped area along with maintaining other property features while NJDEP is primarily responsible for the environmental monitoring activities. Details of the O&M obligations are outlined in the January 2001 Deed Notice. The residential part of the White Bridge Road property was sold to new owners and recorded in a September 2018 Deed. Consequently, EPA will work with NJDEP to reevaluate and clarify how O&M is being performed between NJDEP and the new property owners.

Potential site impacts from climate change have been assessed, and the performance of the remedy is currently not at risk due to the expected effects of climate change in the region and near the site.

### **III. PROGRESS SINCE THE LAST REVIEW**

This section includes the protectiveness determinations and statements from the last FYR as well as the recommendations from the last FYR and the current status of those recommendations.

**Table 2:** Protectiveness Determinations/Statements from the 2015 FYR.

<b>OU #</b>	<b>Protectiveness Determination</b>	<b>Protectiveness Statement</b>
1	Protective	The remedy at Asbestos Dump OU1 is protective of human health and the environment.
2	Protective	The remedy at Asbestos Dump OU2 is protective of human health and the environment.
Sitewide	Protective	The remedies at Asbestos Dump OU1 and OU2 are protective of human health and the environment.

There were no issues and recommendations in the last FYR; however, follow-up action items were identified which do not affect the current protectiveness of the remedy:



- NJDEP will collect sediment samples twice within the next five-year review cycle to more closely monitor sediment in the Passaic River behind the OU1 mound due to the sporadic detection of asbestos in 2010 to 2015;
- Monitoring Well A (MW-A) will be considered for redevelopment to address turbidity issues. Wells at OU1 will also be evaluated to determine if well redevelopment or modifications to sampling techniques would be necessary to benefit future sampling events;
- Minor settlement issues surrounding monitoring wells and the OU1 cap will be addressed as part of routine O&M activities; and,
- NJDEP will review the adequacy of the OU1 institutional controls to ensure that property notification requirements are included.

#### **IV. FIVE-YEAR REVIEW PROCESS**

##### **Community Notification, Involvement & Site Interviews**

On 10/1/2019, the EPA Region 2 posted a notice on its website indicating that it would be reviewing site cleanups and remedies of Superfund sites in New York, New Jersey, and Puerto Rico, including the Asbestos Dump Site. The announcement can be found at the following web address:

<https://www.epa.gov/aboutepa/fiscal-year-2020-five-year-reviews>.

In addition to this notification, a public notice was made available on May 27, 2020 on the Long Hill Township web page ([www.longhillnj.gov](http://www.longhillnj.gov)) stating that EPA is conducting a FYR for the Site. The results of the review, as described in this report, will be available at the following website:

<https://www.epa.gov/superfund/asbestos-dump> as well as the Site information repository located at Community Bulletin Board in the Town Hall located at 915 Valley Road, Gillette, New Jersey and the EPA Region 2 offices, 290 Broadway, New York, New York 10007-1866.

##### **Data Review**

Groundwater, surface water and sediment monitoring activities have been conducted since the fourth five-year review in 2015. In January 2020, the LSRP collected groundwater samples from seven monitoring wells at OU1 (MW-901, MW-902, MW-903, MW-904, MW-905, MW-906 and MW-907) and five sediment samples and five surface water samples were collected in the vicinity of SED-1, SED-2, SED-3, SED-4 and SED-5 in the Passaic River at OU1. In March 2020, NJDEP collected groundwater samples from six monitoring wells at OU2 New Vernon Road (MW-A, MW-B, and MW-C) and at OU2 White Bridge Road (MW-D, MW-E, and MW-F). Groundwater, surface water and sediment samples were analyzed for asbestos and results for each medium are discussed below.

##### *Groundwater*

For all groundwater samples collected at OU1 and OU2 during the January 2020 and March 2020 sampling events, asbestos was not detected above its NJDEP GWQS of 7 MFL. Results for groundwater samples collected at OU1 and OU2 for the Asbestos Dump Superfund Site from 2008 to 2020 have been consistently below the MCL. Elevated method detection limits at MW-A were noted during the April 2011 and April 2015 sampling events likely due to high turbidity, however asbestos was not present at concentrations above the respective detection limits of 9.5 MFL and 18.5 MFL. The 2020 sampling event indicates asbestos was non-detect at detection limit of 1.9 MFL, thereby indicating the historically elevated detection limits and associated high turbidity have been resolved. EPA will work with NJDEP to reevaluate MW-A to determine if redevelopment is necessary.

### *Surface Water*

NJDEP/LSRP only conducted one sampling event since the 2015 FYR because of ownership changes. Surface water samples were collected by the LSRP at five locations (SW-1, SW-2, SW-3, SW-4, SW-5) along the Passaic River adjacent to the OU1 asbestos mound in January 2020. Asbestos was not detected above the NJDEP surface water quality standard of 7 MFL and has consistently been below 7 MFL in all surface water samples collected between 2008 and 2020. In the 2015 FYR, EPA recommended five surface water samples in OU1 be sampled two times within next five-year period because asbestos detections of asbestos ranged from non-detects to 3% chrysotile in sediment during the 2010 to 2015 period. However, based on the January 2020 sampling event, EPA is recommending surface water sample collection from five locations at OU1 once within the next five-year period.

### *Sediment*

NJDEP/LSRP only conducted one sampling event since the 2015 FYR because of ownership changes. Sediment samples were collected by the LSRP at five locations (SED-1, SED-2, SED-3, SED-4, SED-5) along the Passaic River adjacent to the OU1 asbestos mound in January 2020. These five sediment samples at OU1 had detections of chrysotile asbestos less than 0.4%. In the 2015 FYR, EPA recommended sediment sample collection from five locations at OU1 two times from 2015 to 2020 because two 2011 sampling events and one 2015 sampling event resulted in detections of chrysotile asbestos ranging from non-detects to 3%. However, based on the January 2020 sampling event, EPA is recommending sediment sample collection from five locations at OU1 once within the next five-year period since these sediments are consistently submerged leaving the asbestos material wet and reducing the threat of friability.

### **Site Inspection**

The inspections of the New Vernon Road and OU2 White Bridge Road properties were conducted on 10/15/2019. The OU1 inspection was conducted on 1/23/2020. In attendance for the OU2 inspections were Mazeeda Khan (EPA RPM) Jeanette Abels (NJDEP Case Manager), and for the OU1 inspection was OU1 Mazeeda Khan and Robert Fourniadis (PRISM Millington, LLC Senior Vice President). The purpose of the inspections was to assess the protectiveness of the remedies. Inspection findings for each area are presented below.

### **OU1**

Seven groundwater monitoring wells are located at OU1 including MW-901, MW-902, MW-903, MW-904, MW-905, MW-906, and MW-907. Upon arrival at the property, the access gate to the asbestos mound was locked and perimeter fencing was in good condition. The inspection team walked across the asbestos mound and inspected the integrity and grade of the cap along with the groundwater monitoring wells. The cap had been recently mowed and, overall, appeared to be in good condition. The retaining wall around the foot of the mound (western edge) appeared to be in good condition. All monitoring wells were locked. MW-906, which is located in the parking lot under a manhole adjacent to the asbestos mound, was properly secured and flush with the ground surface.

### **OU2 New Vernon Road**

Three groundwater monitoring wells are located at OU2 New Vernon Road (MW-A, MW-B and MW-C). All monitoring wells at this location were locked. The five-acre property has no structures on it and no paved roads. The property is secured with a chain link fence. The inspection team walked around the perimeter and across the cap. The vegetative cap appeared to be well maintained and appeared to have been recently mowed. No issues were observed during the property visit. NJDEP is considering

monitoring well MW-A for future redevelopment to address turbidity issues detected in April 2011 and April 2015 sampling events.

#### OU2 White Bridge Road

Three groundwater monitoring wells are located at the OU2 White Bridge Road property (MW-D, MW-E, and MW-F). All monitoring wells at this location were locked. The inspection team walked around the perimeter of the landfill area. The rip-rap material around the cap was well maintained as was the upper vegetative portion of the cap. There is evidence of some soil erosion on the cap. NJDEP indicated it will address these issues.

### **V. TECHNICAL ASSESSMENT**

**QUESTION A:** Is the remedy functioning as intended by the decision documents?

The remedy is functioning as intended as it has eliminated exposure to ecological receptors as well as to direct human exposure to asbestos through inhalation, ingestion and dermal contact. This has been achieved by capping ACM with a geotextile and geogrid material and two feet of soil cover, along with a retaining wall for slope stabilization at OU1, and excavating and consolidating ACM, solidification/stabilization of ACM, and installation of a cover consisting of a synthetic liner, fill and topsoil at OU2. Based upon the property inspection, it appears that the caps are in good condition, and have not been impacted by burrowing animals.

Institutional controls, in the form of deed notices, are in place for OU1 and OU2. The deed notices are intended to prevent unacceptable use of ACM landfill areas and solidified material remaining at depth and to prohibit the use of groundwater. The Institutional Controls appear to be functioning as intended. EPA continues to work with NJDEP and the property owners to ensure adherence to Institutional Controls.

Surface water and sediment samples continue to be collected and analyzed for asbestos. It should be noted that there are no asbestos values for the protection of flora and fauna. Except for anomalous events in sediment sampling in 2011 and elevated detection limits at MW-A (OU2 New Vernon Road) groundwater in 2011 and 2015, all samples show asbestos below action levels for sediment, surface water and groundwater.

The Site O&M Plan calls for groundwater monitoring at OU1, OU2 New Vernon Road, and OU2 White Bridge Road every five years and surface water and sediment sampling at OU1 every five years. The 2015 FYR recommended increasing the sampling frequency of OU1 surface water and sediment to twice in the 2015-2020 period due to an unexpected asbestos detection in 2015. However, due to ownership changes, the sampling had only occurred once. Based on the most recent sediment sampling results, EPA recommends surface water and sediment sampling once in a five-year period.

**QUESTION B:** Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

**Human Health Risk Assessment.** The RAOs used at the time of the remedy remain valid. There have been no changes in the physical conditions of the Site or land use that would affect the protectiveness of the remedy. In addition, land and resource use in the area has not changed and is not expected to change in the future.

- a. **Soil:** The OU1 and OU2 remedies continue to provide a barrier to direct human exposure to asbestos through inhalation, ingestion and dermal contact of soil containing asbestos. Remediation goals were not selected for soil since asbestos-containing soils were capped. Institutional controls are in place in order to prevent potential damage to the landfill caps that may result in potential exposures. At the time of the Site inspection, the caps appeared to be well maintained. While ownership of part of the OU2 White Bridge Road property has changed, a Deed Notice filed on this property on January 5, 2001 remains in effect and should maintain protectiveness of human health and the environment on the property. NJDEP will meet with new property owner to assure that requirements of the deed notice are being met.
- b. **Groundwater:** Groundwater results, with the exception of an analytical anomaly identified in April 2011 (less than 9.8 MFL) and April 2015 (an elevated method detection limit of 18.5 MFL) in MW-A, show asbestos concentrations continue to remain below the MCL. Groundwater samples collected at OU1 and OU2 from 2008 to 2020, with the exception of the MW-A results, have been consistently below the MCL. All groundwater samples collected during the January 2020 and March 2020 sampling events indicate asbestos was not detected in groundwater above the MCL of 7 MFL at any well. In addition, the area surrounding the OU1 property is served by a public water supply system and there are no downgradient potable wells within the vicinity of OU1 or OU2. EPA will request that NJDEP consider the redevelopment of MW-A because of historically high turbidity levels before the next FYR.
- c. **Surface Water:** Surface water samples collected over the last five years show that asbestos concentrations remain below the NJDEP surface water quality standard of 7 MFL. Surface water samples were collected by the LSRP at five locations (SW-1, SW-2, SW-3, SW-4, SW-5) along the Passaic River adjacent to the OU1 asbestos mound in January 2020. Asbestos was not detected above the NJDEP surface water quality standard of 7 MFL and has consistently been below 7 MFL in all surface water samples collected between 2008 and 2020. In the 2015 FYR, EPA recommended five surface water samples in OU1 be sampled two times between 2010 and 2015 because detections of asbestos ranged from non-detects to 3% chrysotile in sediment. Although NJDEP performed only one sampling event in the last five years, based on the results of that sampling, EPA now recommends surface water sampling take place once in the next five-year period.
- d. **Sediment:** During the January 2020 sampling event, the five sediment samples and one duplicate at OU1 had detections of chrysotile asbestos less than 0.4%. Specifically, SED-1, SED-2, SED-3, SED-4 and SED-5, SED-DUP were 0.4%, <0.1%, <0.1%, <0.1%, <0.1%, and <0.1%, respectively. Previously, two 2011 sampling events and one 2015 sampling event resulted in detections of chrysotile asbestos ranging from non-detects to 3%. The results indicate past localized detections of asbestos in sediment. However, the sediment is expected to remain submerged and asbestos will remain wet and friability is not a concern for exposure to humans or ecological receptors. Further, the most recent sampling event indicates no elevated asbestos levels in sediment. Based on this, EPA recommends sediment sampling take place once in the next five-year period.
- e. **Vapor Intrusion:** Asbestos is not a volatile substance. Furthermore, the asbestos containing material is covered by a cap and there are no structures located above the landfill areas of OU1 and OU2. Therefore, further evaluation of the vapor intrusion pathway was not conducted.

Overall, the remedy is protective since exposures to ACM have been interrupted and Institutional Controls are in place to prevent exposures to ACM.

**Ecological Risk Assessment.** There are no ecological-based toxicity values for asbestos, however the exposure pathways for terrestrial organisms have been eliminated through implementation of the OU1 and OU2 remedies which provide a barrier to ecological receptors from exposure to soil. Aquatic organisms may have some exposure to asbestos in surface water and sediment, however there are no ecological-based values for comparison. Given that primary health effect related to asbestos exposure is from inhalation of fibers, it is not anticipated that aquatic receptors would be impacted. Therefore, the remedy is protective for ecological receptors.

**QUESTION C:** Has any **other** information come to light that could call into question the protectiveness of the remedy?

No other information has come to light that could call into question the protectiveness of the remedy.

## VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations	
<b>OU(s) without Issues/Recommendations Identified in the Five-Year Review:</b>	
<i>None</i>	
<b>OU(s) with Issues/Recommendations Identified in the Five-Year Review:</b>	
<i>OU1, OU2</i>	

## OTHER FINDINGS

EPA is recommending surface water sample collection from five locations at OU1 once within the next five-year period.

## VII. PROTECTIVENESS STATEMENT

Protectiveness Statement(s)	
<i>Operable Unit:</i> OU1	<i>Protectiveness Determination:</i> Protective
<i>Protectiveness Statement:</i> The remedy at OU1 is protective of human health and the environment.	

Protectiveness Statement(s)	
<i>Operable Unit:</i> OU2	<i>Protectiveness Determination:</i> Protective
<i>Protectiveness Statement:</i> The remedy at OU2 is protective of human health and the environment.	

### Sitewide Protectiveness Statement

*Protectiveness Determination:*

Protective

*Protectiveness Statement:*

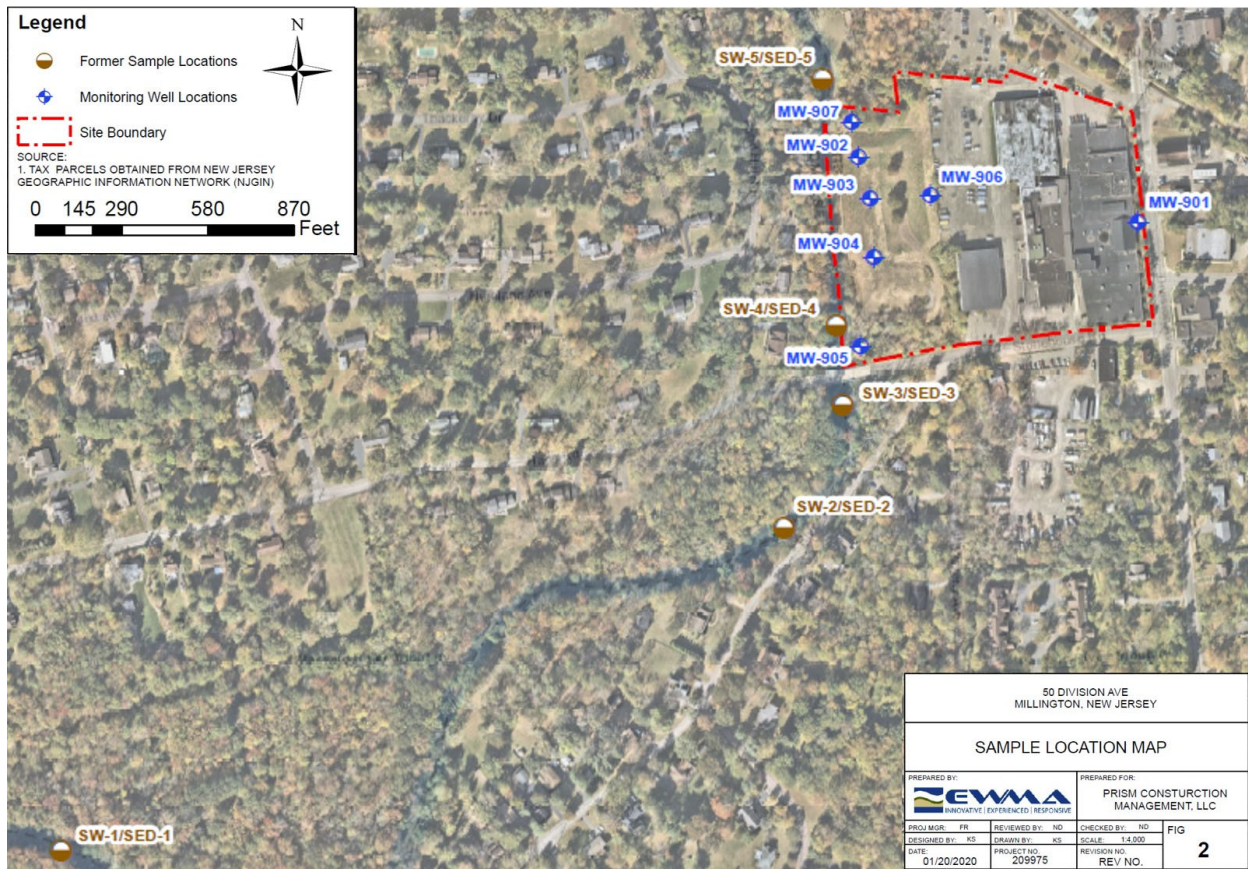
The remedy at OU1 and OU2 is protective of human health and the environment.

### VIII. NEXT REVIEW

The next FYR report for the Asbestos Dump Superfund Site is required five years from the completion date of this review.

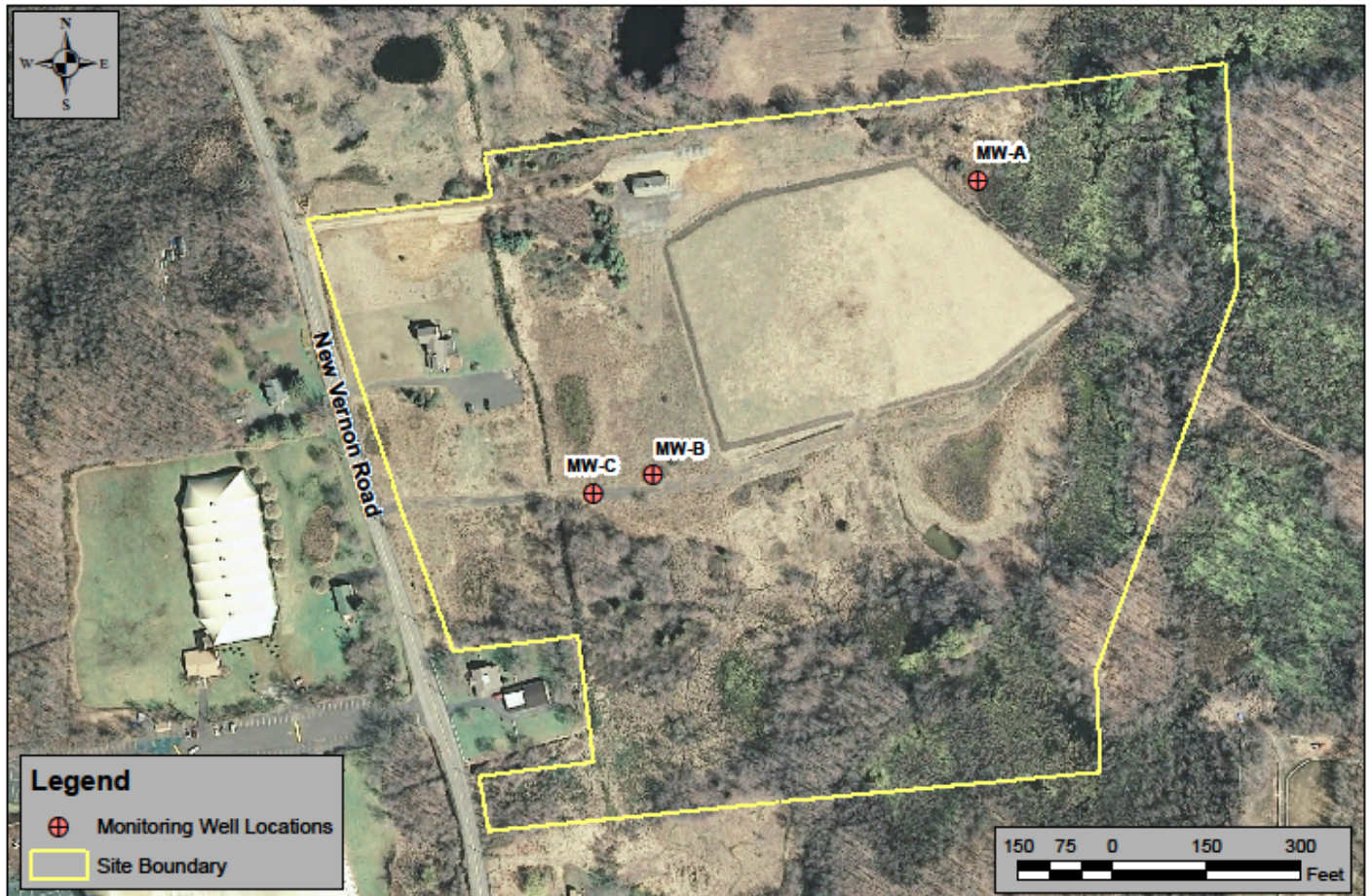
## APPENDIX A – MAPS

### ASBESTOS DUMP SITE OPERATIONAL UNIT 1 – MILLINGTON, NJ





## Asbestos Dump - Operable Unit 2 - New Vernon Road, NJ





## Asbestos Dump Operable Unit 2 - White Bridge Road, NJ

