

FWS Comments on Rolling Knolls Landfill Site Revised Feasibility Study

April 13, 2021

ONLY ALTERNATIVE 5 (FULL LANDFILL CAP) COMPLIES WITH THE NCP

As with the prior draft feasibility study (FS) for the Rolling Knolls Landfill Site, only Alternative 5 in the revised FS meets the threshold criteria required for remedy selection by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). 40 C.F.R. § 300.430(f)(1)(A).

- ***NCP Threshold Criteria:*** The U.S. Environmental Protection Agency (EPA), as the lead agency for this Site, can only select a remedy that meets the following NCP threshold criteria:
 - (1) Protects human health and the environment, which at this Site includes protection of the public resources and recreational users of the Refuge that are part of and surround most of the Site, as well as the reasonable potential for future passive recreation on the remainder of the Site; and
 - (2) Complies with applicable or relevant and appropriate requirements (ARARs), which at this Site include federal laws governing the Refuge and its designated wilderness area and the New Jersey legacy landfill closure laws.
- ***Only Alternative 5 Protects Future Site Use for Passive Recreation:*** As explained in EPA’s *Land Use in the CERCLA Remedy Selection Process*, OSWER Directive #9355.7-04, “reasonably anticipated future use of the land at NPL sites is an important consideration in determining the appropriate extent of remediation.” Although the revised FS acknowledges that open space and passive recreation are the anticipated future use of the Site, four of the five alternatives evaluated would require abandonment and fencing of most of the landfill and would not support such use, including such use on the Great Swamp National Wildlife Refuge (Refuge) managed by the U.S. Fish and Wildlife Service (FWS). Only Alternative 5 would support reuse of the Site by the public for passive recreation consistent with management of the surrounding Refuge wilderness area. As the FS acknowledges, the other alternatives would require “significant Site restrictions” in perpetuity and “do not achieve the level of long-term effectiveness and permanence as Alternative 5 because they allow a significant portion of the landfill to remain in place without a cap to minimize migration of contaminants.” The importance of site reuse has long been recognized as a fundamental goal of the Superfund program. As recently as September 2019, EPA reaffirmed the importance of site reuse in its *Superfund Task Force Final Report* stating, “Superfund allows communities and businesses to rediscover and repurpose land that was once abandoned or written off.”
- ***Access for Future Passive Recreation:*** The revised FS considers the risk to passive recreation users at the Site to be the same as that of trespassers because of current limitations on public access to the Site. It asserts that recreational use of the Refuge wilderness area on the Site is only available through hiking trails on the Refuge more than a mile from the Site and through the dense vegetation and wetlands surrounding the landfill. Alternatives 1-4 would further limit current use of the Refuge wilderness area for public passive recreation by fencing the Site and would preclude any future use of the privately owned portion of the Site for passive recreation consistent with the recorded restrictive covenant for open space. Only Alternative 5 would support future use of the entire Site for passive recreation consistent with wildlife conservation, including enhanced access to the Refuge wilderness area. Proper closure of the entire landfill under Alternative 5 will facilitate future reuse of the Site for passive recreation by the public.

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- Risks to Recreational Users: The baseline human health risk assessment (BHHRA) performed for the Site did not evaluate potential risks associated with passive recreation at the Site. The BHHRA concluded the Site poses unacceptable risk to trespassers on the privately owned portion of the Site, as well as potential risks to recreation users of the ball fields and shooting range at the Site. Since passive recreation is a reasonably anticipated future use of the entire Site, the risk to such future recreational users must be evaluated in a similar manner as the risk to other recreational users at the Site and not based on a trespasser scenario.
- Passive Recreation Remedial Action Objectives and Goals: No remedial action objectives (RAOs) or preliminary remediation goals (PRGs) for sitewide passive recreation were developed because of incorrect assumptions. The revised FS assumes that no future passive recreation can be allowed on the privately owned portion of the Site dedicated to open space and that access to the Refuge wilderness area over the privately owned portion of the Site could not occur in the future. To the contrary, such future use is reasonably anticipated for the Site, and RAOs and PRGs must be established based on such use. The site-specific alternative remediation standards developed for the landfill do not protect this use; rather, the PRGs developed for the other recreational uses should be applied.
- **Only Alternative 5 Protects Wildlife Resources**: As discussed in the FWS Conceptual Site Model and Data Gaps Evaluation Technical Memorandum (Applied Intellect, September 29, 2020) that the FWS shared with EPA, the RI collected limited data on the Refuge. Nonetheless, the baseline ecological risk assessment (BERA) identified unacceptable risk to ecological receptors from hazardous substances at the Site. The revised FS improperly characterizes these risks as “minimal” and fails to develop specific RAOs and PRGs to properly address these risks in evaluating the remedial alternatives.
 - Ecological risks have not been overestimated: In summarizing the BERA results, the revised FS fails to discuss the data gaps that FWS has identified in the RI related to the Refuge and the uncertainties associated with the characterization of the existing ecological risk in view of these data gaps. By focusing primarily on the invasive species habitat found on the landfill and the limited plant and wildlife resources supported by that habitat, the revised FS fails to accurately assess the ecological risks posed by the Site to the Refuge. To the contrary, the revised FS improperly dismisses risks that have been identified using the limited data available by asserting that conservative assumptions made during the risk assessment process result in an overestimation of the potential risk.
 - Ecological RAOs and PRGs: EPA listed this Site on its National Priorities List (NPL) due in large part to its proximity and potential impact to the sensitive ecological receptors in the Refuge, including numerous threatened and endangered species. The NCP requires EPA, as the lead agency at this Site, to develop and, as appropriate, screen remedial alternatives by establishing RAOs and PRGs that “establish acceptable exposure levels ... protective of human health **and the environment.**” 40 C.F.R. § 300.430(e)(2)(i) (emphasis added). The NCP further directs that environmental remediation goals be established based on an evaluation of “threats to the environment, especially sensitive habitats and critical habitats of species protected under the Endangered Species Act.” *Id.*
 - Alternative 5 is the only alternative with the potential to achieve ecological RAOs and PRGs developed based on a proper evaluation of ecological risks from the Site.

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- **Only Alternative 5 Complies with FWS ARARs:** The Refuge is governed by federal laws that are location-specific ARARs for this Site, as listed in Table 4-1. However, contrary to statements in the revised FS, including the cursory information provided in Table 6-2, Alternatives 3 and 4 do not comply with those ARARs.¹ The U.S. Department of the Interior (DOI), through the FWS, is the federal agency responsible for implementing the federal laws governing the Refuge and has been delegated authority under Executive Order 12580 to take response and enforcement actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) on lands under its jurisdiction, custody or control. While EPA also has delegated authority at NPL sites under this Executive Order, EPA has agreed to work collaboratively with DOI at mixed ownership sites such as the Rolling Knolls Landfill Site so both agencies can jointly exercise their delegated CERCLA authority (see *Statement of Principles for Collaborative Decision Making at Mixed Ownership Sites*, DOI ECM07-3). As a matter of DOI policy, DOI will not grant another federal agency authority to implement a CERCLA response action on DOI-managed land unless DOI concurs in the selected remedy (see *Authorizing CERCLA Response Actions Undertaken by Other Federal Agencies on DOI-Managed Lands*, DOI ECM 15-3). Alternative 5 is the only alternative in the revised FS upon which FWS can recommend DOI concurrence.

ONLY ALTERNATIVE 5 MEETS THE NCP CONTAINMENT EXPECTATION

Under the NCP, “EPA expects to use engineering controls, such as containment, for waste that poses a relatively low long-term threat or where treatment is impracticable.” 40 C.F.R. § 300.430(a)(1)(iii)(B).

- **Widespread Releases of Hazardous Substances:** Evidence of industrial waste disposal and releases of hazardous substances have been documented across the landfill, not just in “three isolated areas” that comprise “a small portion of the total volume of waste disposed of at the landfill,” as stated in the revised FS. Legacy landfills such as the Rolling Knolls Landfill received a wide variety of waste, including industrial waste. The revised FS acknowledges that materials associated with industrial waste have been observed across the Site and that data collected during the remedial investigation (RI) document sitewide releases of hazardous substances.
- **Full Containment of Landfill Waste is EPA’s Presumptive Remedy:** As explained in EPA’s *Presumptive Remedy for CERCLA Municipal Landfill Sites*, OSWER Directive #9355.0.40FS, waste at a CERCLA landfill site “usually is present in large volumes and is a heterogeneous mixture of municipal waste frequently co-disposed with industrial and/or hazardous waste. Because treatment usually is impracticable, EPA generally considers containment to be the appropriate response action, or the ‘presumptive remedy,’ for source areas of municipal landfill sites.”

¹ The New Jersey Department of Environmental Protection also advised EPA in a letter dated August 18, 2020, that the New Jersey Solid Waste Management Act and Legacy Landfill Law are applicable to this Site. The revised FS does not address these ARARs and states the following in Table 6-2: “Municipal waste is not the responsibility of the current PRPs and thus not applicable. However, capping implemented as part of this alternative will comply with this ARAR.” Thus, the revised FS does not analyze any of the alternatives for compliance with the ARARs identified as applicable by New Jersey.

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- **Only Alternative 5 Achieves Full Containment:** Only Alternative 5 properly contains the landfill waste at the Site consistent with the NCP expectations. All the remaining alternatives included in the revised FS would fail to contain releases of hazardous substances from landfill waste on all or most the Site and would not meet the above NCP threshold criteria.
 - Alternatives 1 (no action) and 2 (partial fencing and use restrictions) would not contain any of the 140-acre landfill waste.
 - Alternatives 3 (25-acre cap) and 4 (25-acre excavation and off-site disposal) would address the releases of hazardous substances on 25 acres of the landfill, leaving 115 acres, including the 35 acres on the Refuge wilderness area, to remain unabated.

Detailed waste characterization would be required to document that releases of hazardous substances are not occurring from any portion of the landfill not being contained. Such characterization would be difficult, if not impossible, to perform and has not occurred to support Alternatives 1-4.

LANDFILL REMEDY IS CRITICAL TO PROTECTION OF GROUNDWATER

Much of the landfill waste lies below the water table within the shallow groundwater at the Site. The revised FS acknowledges that water likely flows through the waste material and laterally with local groundwater flow into the surrounding Refuge wetlands. However, the revised FS asserts that hazardous substances are not expected to migrate “much beyond the landfilled area.” As a result, the revised FS does not discuss this interconnection between the waste and contaminants found in the shallow groundwater or how the remedial alternatives developed and evaluated will address it.

- **Separate Groundwater Operable Unit:** The revised FS removes the separate groundwater remedial alternatives included in the prior version, stating that the remedy implemented for the landfill waste (referred to as soil throughout the FS) is expected to address the risks posed by the contaminants identified in the groundwater. EPA has directed that a future decision document will address groundwater at the Site. However, the decision to not evaluate alternatives to address groundwater contamination identified in the RI does not remove the obligation to evaluate the consequences of the landfill alternatives on the shallow groundwater. The revised FS fails to explain how the alternatives will affect the migration of hazardous substances from the landfill waste through groundwater onto the Refuge.
- **Potential Migration to Refuge Unknown:** The RI did not fully investigate the potential releases of hazardous substances from the landfill and onto the Refuge through the shallow groundwater. The FWS identified significant data gaps in the RI related to the potential migration of hazardous substances onto the Refuge (see *Conceptual Site Model and Data Gaps Evaluation Technical Memorandum*, September 29, 2020). The FWS is currently conducting and expects to complete a supplemental investigation to collect additional data to further evaluate this exposure pathway within six months and recommends that no remedy be proposed for the landfill until that data can be considered.
- **Long-Term Monitoring Critical:** The revised FS indicates that a long-term monitoring program will be implemented to ensure the RAOs are achieved but provides no details. While the FWS agrees that capping all the waste material under Alternative 5 should reduce the potential for future migration of hazardous substances onto the Refuge, hazardous substances

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will nonetheless remain on the Site in perpetuity under this alternative. A robust long-term monitoring program will be essential to protecting the Refuge over the long term and additional detail is needed to explain the nature of the monitoring program, its costs, and how it will be effective in detecting migration of hazardous substances on to the Refuge.

ALTERNATIVE 5 COULD BE MODIFIED TO REDUCE SHORT-TERM IMPACTS

The FWS recommended that the FS be revised to consider several modifications of Alternative 5 (or inclusion of an additional alternative) that could significantly reduce the short-term impacts of capping the entire landfill, as necessary to protect the Refuge. None of those recommendations were evaluated in the revised FS.

- *Use of On-Site Material for Capping:* The FWS recommended the potential use of on-site clay material known to be present to reduce the volume of material that will need to be transported by truck to cap the landfill. The revised FS acknowledges that the Site “is underlain by a thick (at least 25 feet and likely greater than 100 feet) impermeable clay layer” and advises that “[u]sing on site material for backfill or capping to potentially reduce truck traffic would be evaluated during remedial design.” However, given the local community’s expressed concerns with truck traffic, ways to reduce or minimize the impact of such traffic should have been thoroughly explored in the revised FS. The FWS’s current investigation, which is expected to be completed within six months, includes collection of geotechnical samples to evaluate properties of the clay material available on site and assess its suitability for use as a cover.
- *Consolidation of the Landfill Waste:* The FWS also recommended that consolidation of the waste be evaluated to allow the portion of the Site on the Refuge wilderness area to be returned to natural wetland habitat. The revised FS contends that approximately 18 acres of wetland would be destroyed by Alternative 5, thus causing an anticipated “high degree of short-term environmental impact.” Any wetlands impacted by the landfill remedy would need to be mitigated, so the short-term impact to wetlands from Alternative 5 is not any greater than the impact from the other alternatives. By removing the landfill waste used to fill the wetlands on the Refuge portion of the Site and consolidating that waste on the upland area on the remaining landfill area, the landfill area that would need to be capped could be reduced and wetland habitat could be reestablished on the Refuge, thus more than offsetting any other wetland loss that may occur by implementing Alternative 5.
- *Enhanced Ecological Habitat Across the Site:* By implementing the recommendations made by the FWS to modify Alternative 5, the low quality invasive habitat that exists across much of the Site would be replaced with higher-quality, natural wetland habitat free of landfill waste materials, as well as upland wildlife habitat established on the capped area. Such habitat would enhance Site reuse for wildlife conservation and passive recreation consistent with the surrounding Refuge.
- *Other Successful Landfill Cleanup within the Refuge:* The Asbestos Dump OU3 Superfund Site and the Harding Landfill within the Refuge have been successfully cleaned up and area available to the public for passive recreation and wildlife conservation by applying the approach recommended by the FWS for Alternative 5 (see attached EPA Fact Sheet).

Celebrating Success: Asbestos Dump Millington, New Jersey



Superfund
Redevelopment
Initiative



An aerial view of emergent wetlands, streams and ponds at the Dietzman Tract. (Source: EPA)

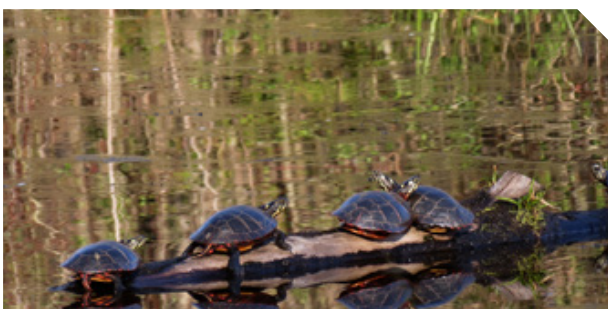
“Thanks to EPA’s efforts, the risk from the asbestos at this site has been addressed and now the site can come off the Superfund list...”

EPA Regional Administrator Judith Enck



Wetlands at the Great Swamp National Wildlife Refuge. (Source: USFWS)

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Eastern painted turtles basking on a log at the Refuge. (Source: USFWS)

Special consideration given to remedial design at the Dietzman Tract portion of the Asbestos Dump Superfund site (the Site) has facilitated ecological restoration within the Great Swamp National Wildlife Refuge in Morris County, New Jersey. Other site-related cleanup activities have provided additional wildlife habitat for the Refuge.

A succession of owners operated an asbestos products manufacturing plant at the Site’s Millington property, beginning in 1927. Dumping, burning and waste disposal took place on the property until on-site disposal reached capacity and owners began sending waste and materials containing asbestos to three satellite disposal areas: New Vernon Road, White Bridge Road and Dietzman Tract. The 7-acre Dietzman Tract served as a waste and asbestos disposal area for almost 40 years prior to the U.S. Fish and Wildlife Service (USFWS) taking possession of it in 1968 as part of the Great Swamp National Wildlife Refuge. EPA placed the Site, which includes the Millington property and three satellite disposal areas, on the National Priorities List (NPL) in 1983. The Site’s potentially responsible party, National Gypsum Company, conducted immediate cleanup actions at three of the properties to address erosion and runoff problems, and to control the spread of asbestos contamination.

Following the National Gypsum Company’s bankruptcy in 1990, the USFWS took over remedial design and cleanup actions at the Dietzman Tract. EPA and the USFWS designed a remedy that would restore the ecological integrity of the area and maintain connectivity with the surrounding Refuge. Cleanup activities contoured the landfill to the surrounding topography and included planting of native grasses on the landfill cap to provide wildlife habitat. The USFWS made the borrow area, which was dug to provide soil for the landfill cap, into a large open water pond, a habitat absent from the Refuge.

Wetlands once choked by asbestos waste now thrive at the Dietzman Tract within the Refuge thanks to efforts to combine cleanup and ecological restoration activities. The USFWS also helped the Great Swamp Watershed Association obtain an EPA Technical Assistance Grant to increase public awareness of the restoration project. In 2002, part of the New Vernon Road property also was transferred to the USFWS to expand the Refuge. EPA, the USFWS and the state have since completed cleanup and deleted all portions of the Site from the NPL.