

Specific Comments

	Section	Page	Comment
1	2	2	Please change the following sentence "The landfill was used for disposal of municipal waste ..." to "The landfill was used for disposal of waste from households and businesses in Chatham Township..."
2	2.1	3	Please change the first sentence to "The GSNWR was established in the early 1960s and encompasses..."
3	2.2	3	Please verify that the laydown area is outside of the area affected by past disposal practices at the Site. The revised Site Plan (Figure 1-2) submitted indicates that this laydown area straddles the boundary of the landfill. Existing RI data also indicates Benzo(a)Pyrene (BaP) exceedances within the laydown area as portrayed on revised Figure 1-2. Provide clarification as to where the laydown area will be located in relation to the landfill boundaries and the identified contamination.
4	2.2	4	At the end of the section please include the following paragraph: "The portion of the Site within the GSNWR Wilderness Area is currently open to the public and will remain open to the public in the future for passive recreational use. Access to the Site via the GSNWR hiking trails, which are approximately one mile from the Site, is extremely limited and difficult due to dense vegetation and wetlands surrounding the landfill."
5	2.4	5	Please change the second sentence to "A portion of that land was subject to an existing easement that allowed the Miele Trust to conduct sanitary landfilling operations on the acquired property until December 31, 1968."
6	2.4	5	Remove the following text from the section: "According to the RI (Geosyntec 2018), landfilling operations were conducted on approximately 35 acres of this property, which became part of the GSNWR. In 1969, Chatham Township contacted the United States about its plans to comply with Chatham Township ordinances regarding closure of the landfill (Chatham Township, 1969). The United States responded that "Mr. Miele" and not the United States was responsible for closure and that the United States would contact Mr. Miele and report back to Chatham (United States Department of the Interior, 1969). There is no evidence in the record that this ever happened." and "the Trust was permitted to construct fire roads at the Site, which it did from 1979 to 1982. In January of 1975, Chatham Township again contacted the United States (Letter from the Town of Chatham to Mr. Richard E. Griffith, Regional Director, Fish and Wildlife Service (January 14, 1975; Chatham, 1975). Chatham noted that the portion of the

			landfill that the United States owned was never properly covered and requested the United States’ plans for final cover and other actions to avoid future fires. In response, the United States acknowledged that the portion of the landfill on its property was never properly closed but advised Chatham that it had no plans to cover the landfill, that covering it might cause more damage than leaving it alone, and with respect to the possible leaching of pollutants from the landfilled waste, “nature should now be allowed to take its course.” "
7	2.4	5	Add the following text "The landfill closed on December 31, 1968 when its license to operate was not reissued" after the sentence "A portion of that land was subject"
8	2.4	5	Please revise the sentence to read: "A fire occurred at the Site in 1974, and due to accessibility issues in responding to the fire, fire roads were constructed at the Site from 1979 to 1982."
9	2.6	7	Please revise the first sentence to read: "The Group conducted a reuse assessment to evaluate Site-specific, reuse-related considerations to identify reasonably anticipated future Site uses of the privately-owned portion of the site."
10	2.7.1	7	Please include a section in the beginning of Section 2.7 describing the RI findings for the test pit results. The following language can be used: "The nature and extent of the material landfilled at the Site was characterized through the excavation of 57 test pits. Waste and/or debris was observed in 35 of the 57 test pits at variable thickness up to 18 feet below ground surface (bgs) (Figure 2-2). Based on these test pits, the areal extent of the landfill is estimated to be 140 acres. At 18 locations, material other than household waste was observed (e.g., drums, buckets containing tar/resin-like substance, metal debris, 3-gallon amber bottles, syringes, car battery casings). Potential industrial waste was observed in three test pits. Various volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides and inorganic constituents were detected in samples from these test pits and/or various drums encountered. "
11	2.7.1	7	Add a figure showing test pit locations and depth of waste encountered.
12	2.7.5.1	11	MW-6 and MW-7 have been physically compromised in regard to total depth and/or ability to be sampled. Please note that these wells, and any other site monitoring wells

			that have been compromised, will need to be repaired or replaced.
13	2.7.5.1	13	A statement was added to this section that references a culvert that potentially connects the western pond (which accepts runoff from the landfill) to the wooded wetlands west of the pond. Please clarify if the outfall area of this culvert was specifically evaluated in any fashion or if additional assessment of this feature will be included in the Pre-Design Phase.
14	2.7.5.1	13	Please revise the third sentence to read "Wetlands between the Surface Debris Area and Loantaka Brook that also appears to be subject to sheet flow, parallel to Loantaka Brook. "
15	2.7.5.2	14	Please change the first sentence to "As previously discussed, the landfill consists primarily of municipal solid waste..."
16	3.1.1	17	Please add the following language regarding current and future use of the GSNWR Wilderness area to this section " Although the BHHRA did not evaluate current and future recreational use scenarios for the GSNWR Wilderness Area, the risk to passive recreational users would be similar to the risk to adult and adolescent trespassers to the extent passive recreational users experience a similar level of exposure. The reasonable maximum exposure for trespassers in the BHHRA assumes that a trespasser traverses the Site five days per week on average during the summer and three days per week during the spring and fall, and wades in the on-site ponds one day per month during warm weather (i.e., May through September), which is a total of 84 days per year."
17	3.1.2	18	Include "Passive Recreational User (Wilderness Area)" for adolescent and adult trespassers.
18	3.1.3	22	Please add the following sentence "Similar health hazards would be expected to passive recreational users of the GSNWR Wilderness Area." after "Estimated non-cancer health hazard...."
19	4.1	29	Please include the following sentence "They are not duly promulgated regulatory standards, and thus, are not ARARs, but rather are TBCs (To Be Considered)." after "These ARSs replace the NRDCRSs and...". Please correct corresponding ARAR and TBC language in the text and tables.
20	4.2.1	29	Please include the RDCRS as well as the Non-Residential Direct Contact Soil Remediation Standards (NRDCRS) when discussing the standards to which the soil data is compared.
21	5.2	38	Remove "due to cost and/or implementability"

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22	6.2	47	Revise the following sentence to read "The portion of the landfill on the GSNWR is restricted from development by its designation as a Wilderness Area, but it is, and will continue to be, open for passive recreational use." Also add the following language after the aforementioned sentence: "Public access to the Wilderness Area of the Site is via the GSNWR hiking trails, which are approximately one mile from the Site. Access from the GSNWR is extremely limited and difficult due to a lack of trails, dense vegetation and wetlands which surround the landfill. The potential exposure pathway of a passive recreator is considered equivalent to the trespasser scenario in the BHHRA."
23	6.2.3	49	Please revise the second sentence to "...human receptors to contaminants in soil in this area will be reduced..."
24	6.2.3	49	Please add the following sentence "Fencing/signage will not limit access to the GSNWR Wilderness Area" after "Fencing/signage limits access to the..."
25	6.2.5	50	Add "due to the limited nature of the remedial actions" at the end of the last sentence in each bullet.
26	6.2.5	51	Please add the following sentence "In addition, the GSNWR Wilderness Area will continue to be open to the public for passive recreational use." after "However, trespassers may still be exposed to COCs in soil ..."
27	6.3	51	A sentence was added to this section which states that "...the area of TP-09 will be excavated to the water table...". As the contamination that continues to operate as a source of ground water contamination in this area has not yet been vertically delineated. Please revise this sentence to state that:"...the area of TP-09 will be excavated to the depth necessary to remove the full vertical extent of the contamination which continues to operate as a source of ground water contamination..." An assumption cannot be made that the contamination requiring excavation at TP-09 is limited to the unsaturated zone. Please make appropriate revisions to all subsequent references to excavation activities at TP-09 (i.e. pages 62, 73, 91, 97 98 and 107) in sections where excavation to the water table at TP-09 is discussed or referenced.
28	6.3	52	Please add the following sentence "A long-term monitoring program will be implemented to ensure that contaminants in the portion of the landfill that will not be capped do not migrate to surrounding soil, groundwater, surface water or sediments at levels of concern."
29	6.3	55	Please add a bullet on "Assumptions for long-term monitoring" which states "A plan will be developed and implemented for long-term monitoring of soil, groundwater, surface water and sediment downgradient of landfill areas

			that will not be capped." Include these assumptions in the cost estimate.
30	6.3.1	58	Please revise the end of the section to read: "Any areas of potential habitat for the federally threatened and State endangered bog turtle (Figure 6-2) and blue-spotted salamander (Integral, 2016, BERA Figure D4-1 and Figure 6-2) permanently impacted by the remedial action will be mitigated on-site. If any mature trees that are potential roosting habitat for the federally threatened and State endangered Indiana bat (Geosyntec, 2018, RIR, Attachment C, Appendix B), must be removed to implement the remedial action, tree removal will be conducted during time periods when the bats are not roosting, however this habitat would be lost permanently. Capped and excavated/backfilled areas will be revegetated with species native to New Jersey. For areas on the GSNWR, restoration will align with the 2014 GSNWR CCP and will be conducted in consultation with USFWS. Overall, this alternative is expected to meet the NCP criterion for environmental protection. "
31	6.3.3	59	Please include the following text: "However, a significant portion of the landfill will remain without an impermeable cover allowing for the potential migration of contaminants in surface water flow into and through the waste material. This continued potential for the migration of contaminants allows for potential residual risk. A long-term monitoring program will be implemented to ensure the residual human health and ecological risk remains at acceptable levels" after the sentence beginning with "Site controls will further mitigate risk..."
32	6.3.3	59	Please delete the following sentence "Overall, this alternative provides excellent reduction in the magnitude of residual risk."
33	6.4	67	Please revise the footnote to read: "The use of standard construction equipment within the GSNWR may be limited by the designation of this area as a Wilderness Area."

34	6.4.1	69	<p>Please add the following language: "Therefore, any potential residual ecological risk following remedy implementation is considered negligible. By allowing a significant portion of the landfill to remain with no final impermeable cover, the potential remains for contaminants in the waste material to migrate into surrounding soil, groundwater, surface water and sediments. The GSNWR Wilderness Area is hydrologically downgradient of the landfill and any contaminants from waste not contained by an impermeable cover have the potential to migrate to the wilderness area. A long-term monitoring program will be implemented to ensure contaminant levels remain below levels that would pose an ecological risk. Any potential habitat for the federally threatened and State endangered bog turtle (Figure 6-2) and blue-spotted salamander (Integral, 2016, BERA Figure D4-1 and Figure 6-2) permanently impacted by the remedial action will be mitigated on-site. If any mature trees that are potential roosting habitat for the federally threatened and State endangered Indiana bat (Geosyntec, 2018, RIR, Attachment C, Appendix B) must be removed to implement the remedial action, tree removal will be conducted during time periods when the bats are not roosting. " after the sentence "Though some of the calculated post remedy risks were..."</p>
35	6.4.1	69	<p>Please remove the following language "These findings, coupled with the presence of a varied ecological community similar to that found in similar habitats in New Jersey, results in high confidence that that any potential residual ecological risk following remedy implementation is negligible. The existing ecological habitats within the 25-acre Selected Area, which includes old field habitat, mature tree stands, and peripheral wetlands, would be eliminated and be replace with maintained grassy areas which have lower ecological value than the existing vegetated habitats. In addition, small areas of potential habitat for the federally threatened and State endangered bog turtle and blue-spotted salamander, as well as mature trees that are potential roosting habitat for the federally threatened and State endangered Indiana bat, would be lost permanently."</p>
36	6.4.4	72	<p>Please add the following sentence "However, approximately 100 acres of landfill will not be capped allowing for the potential mobility of contaminants remaining in the waste located in this area" after "The contaminated soil in the APCs..."</p>

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37	6.4.5	73	Remove "as needed" from the sentence beginning with "The remedial design..."
38	6.5	78	Please change the following sentence to "During construction, surface water and sediment will be monitored to verify these media are not adversely impacted by the remediation activities..."
39	6.5.1	78	Please add the following text "Capped and excavated/backfilled areas will be revegetated with species native to New Jersey." after the sentence "As was the case..."
40	6.5.1	78-79	Please revise the following language to read "In addition, natural conditions would be restored under this alternative in areas where contaminated soil and surface debris are removed by planting native species and any impacts to areas of potential habitat for the federally threatened and State endangered bog turtle and blue-spotted salamander would be mitigated. Some mature trees that are potential roosting habitat for the federally threatened and State endangered Indiana bat could be lost permanently from their current location."
41	6.5.1	78	Please remove the following text "Vegetative species would be selected and planted on the surface of the cap to promote improved wildlife habitat. The existing vegetation on the landfill area consists primarily of invasive species of marginal wildlife habitat value. Under this alternative, however, the existing ecological habitats of the landfill surface, such as the old field habitat, mature tree stands, and wetlands (18 acres) would be eliminated and replaced with maintained grassy areas, which have lower ecological value than the existing habitats outside of the exposed fill areas."
42	6.5.1	78-79	Please delete the following text "though wetlands could be replaced at another location at the Site or off-Site. Overall, given habitat and species disturbances, the overall net ecological benefit of implementing Alternative 5 is less than Alternatives 3 and 4. "
43	6.5.5	82	Revise the first sentence to read "This alternative would involve removal of invasive species and low-quality wildlife habitat that currently covers much of the landfill area. Some high-quality wildlife habitat may be temporarily disturbed during removal of contaminated soil. However, the landfill cap and disturbed areas would be revegetated with species native to New Jersey."
44	6.5.5	83	Please change the following sentence to "For costing purposes, it is assumed that any permanent impacts to wetlands from capping will be mitigated on-Site, if possible."

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45	6.5.5	83	Please remove the following language "...destroyed and appropriate mitigation methods..."
46	6.5.6	83-84	Please change the following sentence "Due to limited space on-Site, the mitigation of any permanent loss of wetlands my need to be implemented off-Site (for costing purposes on-Site reconstruction was assumed.)"
47	6.5.6	85	Please change "destruction" to "temporary loss"
48	6.6.1	87	Please revise the following sentence to read: "Although the areas to be remediated in Alternatives 3 and 4 are smaller than in Alternative 5, they both allow significant portions of the landfill to remain without an impermeable cap to reduce water infiltration and the potential migration of contaminants in the waste. Thus, significant Site restrictions would be required to achieve adequate protection and long-term monitoring would be necessary to ensure the human health risk at the Site remains acceptable."
49	6.6.1	88	Please delete the following language: "However, Alternative 5 involves destroying all the established mature trees and woody habitat, old field habitat, and wetlands on the 140-acre landfill and replacing it with maintained grassy areas, which have lower ecological value than the existing habitats. In addition, some small areas of potential habitat for the federally threatened and State endangered bog turtle and mature trees that are potential roosting habitat for the federally threatened and State endangered Indiana bat would be lost permanently from their current location, though wetlands could be enhanced, reconstructed or replicated at another location at the Site or off-Site."
50	6.6.1	88	Please include the following language: "However, Alternative 5 involves the potential loss of habitat for the federally threatened and State endangered bog turtle and blue-spotted salamander. Additionally, some mature trees that are potential roosting habitat for the federally threatened and State endangered Indiana bat could be lost permanently from their current location. Vegetation native to New Jersey would be planted on the surface of the cap material." after the sentence "Alternatives 3, 4, and 5 all result in HQs...."
51	6.6.2	88	Please include the following language: "However, Alternatives 3 and 4 allow a significant portion of the landfill to remain without an impermeable cap, which would allow water to infiltrate into and through the waste and continue to potentially migrate into the shallow groundwater, soil, surface water and sediment. Long-term monitoring would be required to ensure contaminant concentrations do not exceed chemical specific ARARs for these alternatives." after the sentence "The remedial actions included in...."

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52	6.6.3	89	Please revise the second sentence to "This alternative does not reduce the residual risk in the soil at the Site and does not provide a provide a permanent remedy with long-term effectiveness. Alternatives 3 and 4 provide remedies that reduce the Site risks to acceptable levels, but do not achieve the same level of long-term effectiveness and permanence as Alternative 5 because it allows a significant portion of the landfill to remain without an impermeable cap to prevent the migration of contaminants."
53	8	119	Please revise the following sentence to read: "The evaluation is based on the expectation that the privately-owned landfill portion of the Site will not be used in the future for any residential, commercial, industrial, recreational or other purposes."
54	8	119	Please revise the following sentence to read: "Therefore, the only potential human receptors on the privately-owned landfill portion of the Site are trespassers and there will be no groundwater use at the Site."
55	8	119	Please add the following sentence to the end of the paragraph: "The portion of the Site within the GSNWF Wilderness Area is currently open to the public and will remain open to the public in the future for passive recreational use, which is equivalent to trespasser scenarios evaluated in the FS."