2013 Five Year Review, NWIRP Bethpage

NYSDEC and NYSDOH Review Comments and Responses

12/3/2014

	NYSDEC comments regarding the 5-Year Review Report for the Former NWIRP Bethpage	Responses
1.	Page vii, OU1 Issues and Recommendations Site 1: Monitoring wells have been identified that are no longer in use and/or have been damaged beyond repair and require proper closure.	It was noted that the protective surface casing on several wells needed repair and locks needed replacement. This has been added to the report under OU1 Issues and Recommendations.
2.	Page vii, Issues and Recommendations Site 2 & Page 35 Sections 3.8 &3.9: The erosion of the recharge basin walls is a potential problem for a number of reasons. Potential high water storm events and extraordinary spring melt/runoff can change the erosion and soil cap management into a sudden unacceptable situation. Repairs should be made now that include removal of any trees that have taken root in the area of the vegetative cap.	This property has been transferred to Nassau County, and they perform periodic inspections. Please note that the county did perform repairs to the southeast basin in 2012. The Navy will notify the County of NYSDEC's concerns.
3.	Page vii, Issues and Recommendations & Page 43, Site 3: The former NWIRP waste water treatment plant was identified with former settling tanks that have filled with water and have no security. This needs to be corrected.	This property has been transferred to Nassau County. The Navy will notify the County of NYSDEC's concerns.
4.	Page 7, Section 1.7: Joseph De Franco of the Nassau County Dept. of Health also	Mr. De Franco has been added to the inspection group in the report text.

	was part of the five year inspection group.	
5.	Page 22, Groundwater Investigation: The MCL for total Chromium in groundwater is 50 ug/l and for hexavalent chromium varies depending on the groundwater classification (See Attached values for Chromium).	The Federal MCL and the NYSDOH MCL (http://www.health.ny.gov/regulations/nycrr/title_10/part_5/subpart_5-1) are both 100 ug/L, which are considered protective and are consistent with the intent of the ROD of being protective of human health and the environment.

	New York State Department of Health comments regarding the 5-Year Review Report for the Former NWIRP Bethpage	**Resolution Consultants Responses**
1.	P. 10 What about SVI @ Site 2 - does the 1995 ROD address Site 2?	The Record of Decision (ROD) does not address Soil Vapor Intrusion (SVI) VI at Site 2; however, VI is addressed in the property transfer documents.
2.	P. 10 It (CP-51) also provides additional direction regarding the thickness of covers (i.e., 1 foot versus 0.5 foot identified in the OU1 ROD) **Question:** Isn't there a discrepancy for Site 2? 0.5 foot cover is what is reported.	0.5 foot is the thickness identified in the ROD. CP-51 was evaluated during the Five Year Review. Because direct surface exposure potential has been addressed by the 0.5 foot permeable soil cover, land use controls provided in the property transfer documents, and engineering controls (fencing and ingress control to the property), the remedy remains protective of human health.
3.	P. 10 The Vapor Intrusion Pathway will need to be further evaluated for Site 1 activities. **Question:** What about Site 2 and Site 3?	SVI for Sites 2 and 3 are addressed in the property transfer documents.
4.	P. 28 It contains three recharge basins that currently receive storm water. The storm water is received from catch basins located on current and former NWIRP property and former NG property to the north and east and the treated discharge from the Bethpage Community Park's groundwater pump and treatment system. **Question:** There should be a description of what currently goes into these recharge basins. Also, a photo on page 21 of the photo appendix shows the valve for the OU3 gw treatment system operated by NG, however, this is not addressed anywhere in the text.	The known sources include storm water from the northern three quarters of the former NWIRP Bethpage, storm water and other flow from the off property area north and east of the former NWIRP Bethpage, and treated groundwater from the Bethpage Community Park groundwater remediation system. This information has been added to the report text.

		The photo of the valve distribution box for the OU3 groundwater treatment system was only provided to show the physical condition of the area.
5.	P. 28 Originally, these basins also receive rinse waters from NG's operations. There is additional historical evidence of unauthorized, concentrated industrial waste discharges to these basins as well by NG. **Question:** Is there any information about what might have been in these rinse waters or the concentrated industrial waste?	This statement is from the Initial Assessment Study (IAS), which represents the best information available regarding early flows into the storm water system. Reportedly, production line rinse waters may have contained chromium wastes, nitric acid, and sulfuric acid. According to the IAS, on at least one occasion Nassau County reported a level of hexavalent chromium in the discharge above allowable limits.
6.	P. 29 Direct evidence of past hazardous waste disposal was collected regarding the recharge basins at Site 2. **Question:** What is this direct evidence?	The evidence is the IAS report of chromium, nitric acid and sulfuric acid being included in the production line rinse waters disposed at the site prior to 1984. Additionally, on at least one occasion, Nassau County detected hexavalent chromium above allowable limits. This information has been added to the report text.
7.	P. 29 The Environmental/Energy Survey of the activity, published in 1976, states that 1.85 million gallons per week were discharged to the recharge basins. **Question:** Is this 1.8 million gallons per week of production line rinse waters?	Correct, discharge was from production line rinse waters. This information has been added to the report text.
8.	P. 29 Reportedly, these discharges of dilute rinse waters did not contain chromates, based on the IAS; however subsequent facility and site investigations revealed the likelihood that chemical discharges, more concentrated than rinse waters, may have been released to the storm water system through various drainage features inside and outside of Plant 3. **Question:** What did the discharges likely contain?	The initial information is from the IAS. Subsequent information, contained in the Site 2 RI indicates the presence of chromium and polychlorinated biphenyls (PCBs). This information has been added to the report text.
9.	P. 29 Since 1977, the discharge rate to the recharge basins was 14 million gallons per week of non-contact cooling water. **Question:** How long did this rate of discharge to the recharge basin continue?	This occurred through the mid-1990s. This information has been added to the report text.

10.	P.29 On several occasions in the 1940s and 1950s, sampling performed by the Nassau County Department of Health detected levels of hexavalent chromium in excess of allowable limits. **Question:** What was sampled? Discharges to the Site 2 recharge basins?	Nassau County sampled the water entering the recharge basins, and in 1956 reported levels of hexavalent chromium above allowable levels. This information has been clarified and added to the report text.
11.	P. 29 Reportedly, NG complied with the request. **Question:** What was done by NG to comply?	This information was briefly reported in the IAS. However, there are not sufficient records to determine the actions taken by Northrup Grumman, but it likely involved waste stream segregation. This information has been added to the text.
12.	P. 30 The field investigation consisted of collecting 48 soil-gas samples at 24 locations, 13 surface soil samples, 14 subsurface soil samples at 13 locations, 2 surface water samples, and 4 sediment samples; installing 3 permanent monitoring wells at 2 locations; and sampling 3 permanent monitoring wells and 11 temporary monitoring. **Question:** Can these sampling locations be shown on the figure for Site 2?	There is too much data available to show it all in the 5-yr review. This detailed information is available in the Site 2 RI. A notation that detailed information is included in the Site 2 RI has been added to the report text.
13.	P. 30 Based on analytical results, Site 2 is not likely a significant source of groundwater contamination. **Question:** Could these results be provided?	There is too much data available to show it all in the 5-yr review. This detailed information is available in the RI. A notation that detailed information is included in the Site 2 RI has been added to the report text.
14.	P. 30 Based on analytical results, Site 2 is not likely a significant source of groundwater contamination. Minimal VOC contamination was present in Site 2 soils and groundwater. **Question:** Again, at what concentrations?	There is too much data available to show it all in the 5-yr review. This detailed information is available in the RI. A notation that detailed information is included in the Site 2 RI has been added to the report text.
15.	P. 30 The surface water entering the recharge basins contained sufficient concentrations of VOCs to result in the observed groundwater contamination. **Question:** Does surface water mean storm water? If so, why did storm water contain VOCs?	The surface water consists of storm water and non-contact cooling water. The VOCs were in the non-contact cooling water extracted from site groundwater. Specification of what was considered surface water has been added to the report text.
16.	P.30 Based on the concentration of VOCs found in the production wells, it was likely that the recharge basins were redistributing the contaminated groundwater.	The VOCs were less than the State Pollution Discharge Elimination (SPDES) permit value

	Question: What concentrations of VOCs were found in the production wells?	of 5 or 50 ug/L; note that the permit value changed from 50 ug/L to 5 ug/L during the monitoring period. This information has been added to the report text.
17.	P. 30-31 NG pursued treatment of this water prior to reinjection. **Question:** What does this mean?	When the SPDES discharge limit for TCE decreased from 50 to 5 ug/L, Northrup Grumman added air stripping to one of the wells and evaluated the addition of an aeration basin. This information has been added to the report text.
18.	P.31 Permeable 6-inch cover over the surficial (non-basin) residual contaminated soils on the northwestern portion of the site, and corresponding deed restrictions. Residual soil contamination consists of metal, VOC, PAH, and PCB at concentrations greater than TAGM 4046. **Question:** This is not compliant with CP-51, should be 1 foot of soil.	0.5 foot is the thickness identified in the ROD. CP-51 was evaluated during the Five Year Review. Because direct surface exposure potential has been eliminated by the 0.5 foot permeable soil cover, land use controls provided in the property transfer documents, and engineering controls (fencing and ingress control to the property), the remedy is considered protective of human health, and no change to the remedy is recommended.
19.	P. 33 As presented in the 2012 Interim Data Summary Report, PCBs were detected in surface water entering the southwestern recharge basin at a concentration of 0.35 µg/L during a storm event. PCBs were not detected in a similar sample of the inlet to the northeast recharge basin. The MCL for PCBs is 0.5 µg/L. **Question:** Was the source of these PCBs identified? Pretty close to the MCL, not insignificant.	The source of the PCBs was not directly identified. Several potential sources are being evaluated, and will be reported in the upcoming RI Addendum for Site 1. This information has been added to the report text.
20.	P.34 In addition, a cover was placed on those soils which contained contaminants greater than a residential use scenario in accordance with the ROD. **Question:** Shouldn't it be noted that the cover is less than what is now required by CP-51?	0.5 foot is the thickness identified in the ROD. CP-51 was evaluated during the Five Year Review. Because direct surface exposure potential has been eliminated by the 0.5 foot permeable soil cover, land use controls provided in the property transfer documents, and engineering controls (fencing and ingress control to the property), the remedy is considered protective of human health, and

		no change to the remedy is recommended.
21.	P. 34 During preparation of the ROD, Site 2 was being used to recharge storm water and non-contact cooling water, with exposure assumptions similar to an industrial use scenario. Since 1998, Site 2 has not been active and only rarely visited (once per month or less). **Question:** Can a description of what goes into these recharge basins today be provided?	The known sources include storm water from the northern three quarters of the former NWIRP Bethpage, storm water and other flow from the off property area north and east of the former NWIRP Bethpage, and treated groundwater from the Bethpage Community Park groundwater remediation system.
22.	P.34 Cleanup levels are the same as during the ROD. **Question:** State that cleanup levels in the ROD are at least as restrictive as current (i.e. Part 375 SCOs).	Cleanup levels specified for Contaminants of Concern in the OU1 ROD are more restrictive than those in Part 375 SCOs for industrial use. This statement has been added to the text.