



NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION
RCRA Corrective Action
Environmental Indicator (EI) RCRIS Code (CA750)

Migration of Contaminated Groundwater Under Control

Site Name: Former Beebe River Mill Lagoon Site
Site Address: Route 175, Campton, NH
Facility EPA ID #: NHD001085430
DES Site #: 199902022

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

X	If yes - check here and continue with # 2 below.
	If no - re-evaluate existing data

If data are not available, skip to # 8 and enter "IN" (more information needed) status code.

BACKGROUND

The Area of Concern is a former lagoon that received plating wastewater from the former Beebe River Mill. The former lagoon was closed under a Department approved Remedial Action Plan in September 1982 and completed with a closure report submitted 1984. The closure consisted of removal of contaminated plating sludge, severing and plugging pipe connections to the impoundment, backfilling the bottom of the excavation to an elevation above the seasonal high water table, redeposition of the sludge and berm materials into the excavation, covering the materials with clean fill, and installation of a synthetic liner with vegetation. The Department has required Groundwater Management Permits for the site with the most recent issued December 29, 2008. This requires annual groundwater and surface water sampling of the site. There are no water supply wells in the area and there have been no detectible impacts to the Beebe River since June 2005.

RCRA RECORDS CENTER
FACILITY Rockwell Int-
I.D. NO. NHD001085430
FILE LOC. R-13
OTHER #108030

2. Is groundwater known or reasonably suspected to be "contaminated" above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

X	If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.
	If no - skip to # 8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

If unknown - skip to # 8 and enter "IN" status code.

Rationale and Reference:

Groundwater monitoring indicates that one downgradient monitoring well exceeds AGQS for cadmium as documented in the annual groundwater monitoring required by Groundwater Management Permit GWP-199902022-C-003, 2009 Annual Report dated July 30, 2009

3. Has the migration of contaminated groundwater stabilized (such that contaminated groundwater is expected to remain within the Groundwater Management Zone as defined by the monitoring locations designated at the time of this determination)?

X	If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the Groundwater Management Zone
	If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination" ²) - skip to # 8 and enter "NO" status code, after providing an explanation.

Rationale and Reference(s):

Groundwater Management Permit GWP-199902022-B-003 requires sampling of groundwater and surface water on an annual basis. Analytical results downgradient of the former lagoon indicate that migration of contamination past the GMZ has not occurred. See 2009 Annual Report dated July 30, 2009

ABSTRACT SCHEDULED FOR
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4. Does "contaminated" groundwater discharge into surface water bodies?

X	If yes - continue after identifying potentially affected surface water bodies.
	skip to # 7 (and enter a "YES" status code in # 8, if # 7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "mination" does not enter surface water bodies.

If unknown - skip to # 8 and enter "IN" status code.

Rationale and Reference(s):

The surface water of concern is the Beebe River. Groundwater Management Permit GWP-199902022-B-003 requires sampling of groundwater and surface water on an annual basis. Annual surface water sampling has typically been non-detect for the contaminants of concern. Concentrations have not been detected in surface water downgradient of the former lagoon since June 2005.

5. Is the discharge of "contaminated" groundwater into surface water likely to be "insignificant" (i.e., Do not exceed Surface Water Quality Standards) and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

X	If yes - skip to # 7 (and enter "YES" status code in # 8 if # 7 = yes), supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.
	If no - (the discharge of "contaminated" groundwater into surface water is potentially significant)

Rationale and Reference(s):

Groundwater discharge to the surface water typically has not resulted in a violation of SWQS. This is dependant on flow rates in the receiving river, lower flows have had violations of the SWQS, this has occurred once in the last five years. The Department believes this is a temporary occurrence and not significant.

6. Can the discharge of "contaminated" groundwater into surface water be shown to be "currently acceptable" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented)?

X	If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater;
	If no - (the discharge of "contaminated" groundwater can not be shown to be "currently acceptable") - skip to # 8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

Rationale and Reference(s):

Groundwater Management Permit GWP-199902022-B-003 requires sampling of groundwater and surface water on an annual basis. Analytical results downgradient of the former lagoon indicate that migration of contamination past the GMZ has not occurred. The impact to surface water has been below Surface Water Quality Standards for the contaminants of concern (i.e., cadmium and cyanide)

7. Will groundwater monitoring / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

X	If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in # 3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."
	If no - enter "NO" status code in # 8.

Rationale and Reference(s):

Groundwater Management Permit GWP-199902022-B-003 requires sampling of groundwater and surface water on an annual basis

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

X	YES - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.
	NO - Unacceptable migration of contaminated groundwater is observed or expected.

Completed by: David Bowen 9/17/09
 Signature Date

David Bowen
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Supervisor: Kenneth N. Kettenring 9/17/09
 Signature Date

Kenneth N. Kettenring
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Locations where References may be found:
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