

MEMO

TO: NEWSVT (via email to Kelly Gleason kelly.gleason@casella.com)

FR: Craig Heindel, CPG

Date of MEMO: Nov. 04, 2024

RE: Black River inspection by boat on August 16, 2024

On August 16, 2024, the twenty-first [21st] Black River inspection by boat was held. There were seven [7] participants this year: Craig Heindel (Senior Hydrogeologist, WHEM); Lindsey Menard and Kelly Gleason (NEWSVT/Casella); Jeff Parsons [Arrowwood Environmental]; Kathleen Ahearn [Coventry resident]; Laura Page [office of Gilles Belanger, Quebec National Assembly]; and Carter Finegan [Northeastern Vermont Development Association]. We used canoes and kayaks rented from Clyde River Recreation, West Charleston, VT (895-4333).

Others who were notified by NEWSVT by email about the date of the trip but did not attend included: amy.polaczyk@vermont.gov; Ariane Orjikh; Bélanger, Gilles; ben.copans@vermont.gov; Bourdeau, Jeff; Charles Goulding; Coventry Planning Commission; David Largy-Nadeau; dennis.fekert@vermont.gov; dsnedeker@nvda.net; laddspam@gmail.com; Dori Barton; DUMP; Jean Pierre Fortier; Guy Jauron; Guy Parenteau; Jean-Francois Gagnon (jgagnon1@latribune.qc.ca); Laura Sullivan; Jonathan DeLaBruere; Kirsten Sultan; Ned Connell [townadministrator@coventryvt.org]; Paul Tomasi (director@nekwmd.org); Pete.LaFlamme@vermont.gov; Pierre Luc; Sophie Bergeron; thomas.bernier@newportvermont.org; Karine Vigneux; Sarah Bathalon; Teresa Gerade; Steven Young; and various members of the NEWSVT team.

SUMMARY: No signs of landfill impacts were seen in the river, its banks, or side tributaries and channels. Very little trash was observed or collected in the river and its banks, and none of it appeared to be from the landfill. There was almost no wind-blown trash from the landfill. Occasional faint landfill odors were briefly noticed – described by participants at various locations as possible odors of sludge, or mixed solid waste. We occasionally heard the faint sound of backup beepers from the landfill; we did not notice noise from the waste-to-energy plant; mostly we heard traffic noise from Rte. 5. We had several wildlife sightings [more details below], and the river and the surrounding wetlands looked very healthy. Again this year we did not observe any alders infested with woolly alder aphids [also called maple blight aphids], such as we observed for the first time ever, only in 2021.

Photos: See attached photo log.

Put-in and Take-out Location: We put in at the river access adjacent to the pulloff at the south end of the Airport Road bridge over the Black River, and paddled upstream to the upstream water quality sampling location on the river (SW-1), adjacent to Rte. 5. We then turned around and returned to the put-in point adjacent to the pullout, for take-out. See enclosed map.

Time: 9:20 am in; 12 noon out.

Weather during trip: The air temperature was in the low 70s. Skies were overcast, with a moderate breeze from the south.

River flow rate and water level: The flow rate in the river appeared to be moderate – we noticed a mild current. According to provisional data from the USGS gauging station located on the Black River in Coventry (a couple of miles upstream of the landfill area), the flow rate in the Black River on the day of our trip was 131 cfs (cubic feet per second), which the lowest in the range of the flow rates recorded for the previous 9 days (range: 131 to 764 cfs). See summary table, enclosed. The flow rate on the date of our inspection was 32 cfs higher [22% higher] than the average August flow rate since measurements began in 1952 (USGS statistics indicate that the mean monthly flow rate for the month of August is 99 cfs for the period 1952 through 2023).

- The water level in the main channel was higher than usual – there were very few muddy unvegetated streambanks exposed. Water levels in the north and northeast backwater areas were high enough to allow us to paddle into them [see map]. We also were able to paddle a few feet into the northwest backwater, further upstream. The higher water level on this date was likely a reflection of the moderate to high river flow rates in the previous couple of weeks, due to frequent precipitation events.

Vegetation: The shoreline vegetation appeared to be healthy and lush, with no apparent signs of landfill impacts. Similar to previous years, we saw very little purple loosestrife growing along the bank of the main river channel; we did notice a few very small stands of purple loosestrife in the three backwater areas that we paddled into [possibly not seen in previous years]. The cut stumps of invasive honeysuckle along the banks, from the removal effort by Northwoods Stewardship Center that was conducted in 2022, did not appear to be heavily re-sprouting. Very few areas of algal blooms were seen [fewer than usual]. Fewer than usual stands of Joe Pye Weed were seen. Jeff Parsons [ecologist from Arrowwood Environmental] pointed out bladderwort, marsh cinquefoil, arrowhead, wetland hemlock and other plant species that are common along river banks or in open wetlands such as here.

Trash observations: This year, we saw and collected a very small amount of trash – just enough to partially fill one 30-gallon trash bag. The trash we collected was mostly bottles, cans, and bits of Styrofoam. There was very little fishing-related trash. We saw no landfill-related trash in the water, along the banks, or in the trees; and there were very few signs of wind-blown trash anywhere along the route of our inspection.

Water Quality observations: In the main river and backwaters, we saw no signs of landfill-related water quality impacts. Water temperature felt like it was in the low 60s F. The water clarity was quite clear – lowering a canoe paddle held straight down, I could see it to a depth of about 5.0 feet. Water depth was greater than a canoe paddle (5 feet) in the middle of the channel, and seemed to be much deeper than that. We observed no sheens, odors, or signs of discharges from the landfill. We saw occasional small orange-colored seeps along the banks on both sides of the river, indicating the presence of iron-fixing bacteria [see photo]. We did not collect any surface water or groundwater samples.

Detailed water quality observations are as follows:

- **Main river:** There were no signs of water quality impacts from the landfill.
- **Backwater areas:** This year, we were able to paddle quite far into the northeast backwater to our usual turnaround point about 400 feet in from the river, and roughly about 400 feet north of the closest edge of Unlined Area A. We saw no signs of landfill impacts in the northeast backwater. I stirred up the sediment with a paddle at the furthest point of paddling; we did not observe any unusual odors or sheens in the sediment or water. The sediment had a peaty musty smell, as one would expect in wetlands. We also paddled short distances into the next [upstream] two backwater areas off the main channel, and saw no landfill impacts.
- **Side tributaries:** We noticed a few locations where small stream channels or flow from Rte. 5 culverts enter the main channel, at the same locations as in previous years. No flow was coming from any of these side tributaries or culverts today, and there were no new channels that had not been noticed in previous years. There were no signs of prior water quality impacts from these side tributaries.

Landfill odors: Possible faint landfill odors were briefly noticed -- described by participants at various locations as possible odors of sludge, or mixed solid waste.

Sounds: We occasionally heard the faint sound of backup beepers from the landfill; we did not notice noise from the waste-to-energy plant; mostly we heard traffic noise from Rte. 5.

Views of Landfill: At various points along the first half of the trip, we could see the tops of Areas A and B, the soil stockpile west of A and B, the north and west slopes of Phases 1 and 2, the tops of the other phases of the landfill areas, and the top of the soil stockpile south of Phase 6.

Dust: We saw no clouds of dust over the landfill, and no signs of dust on the vegetation along the river or in the backwaters.

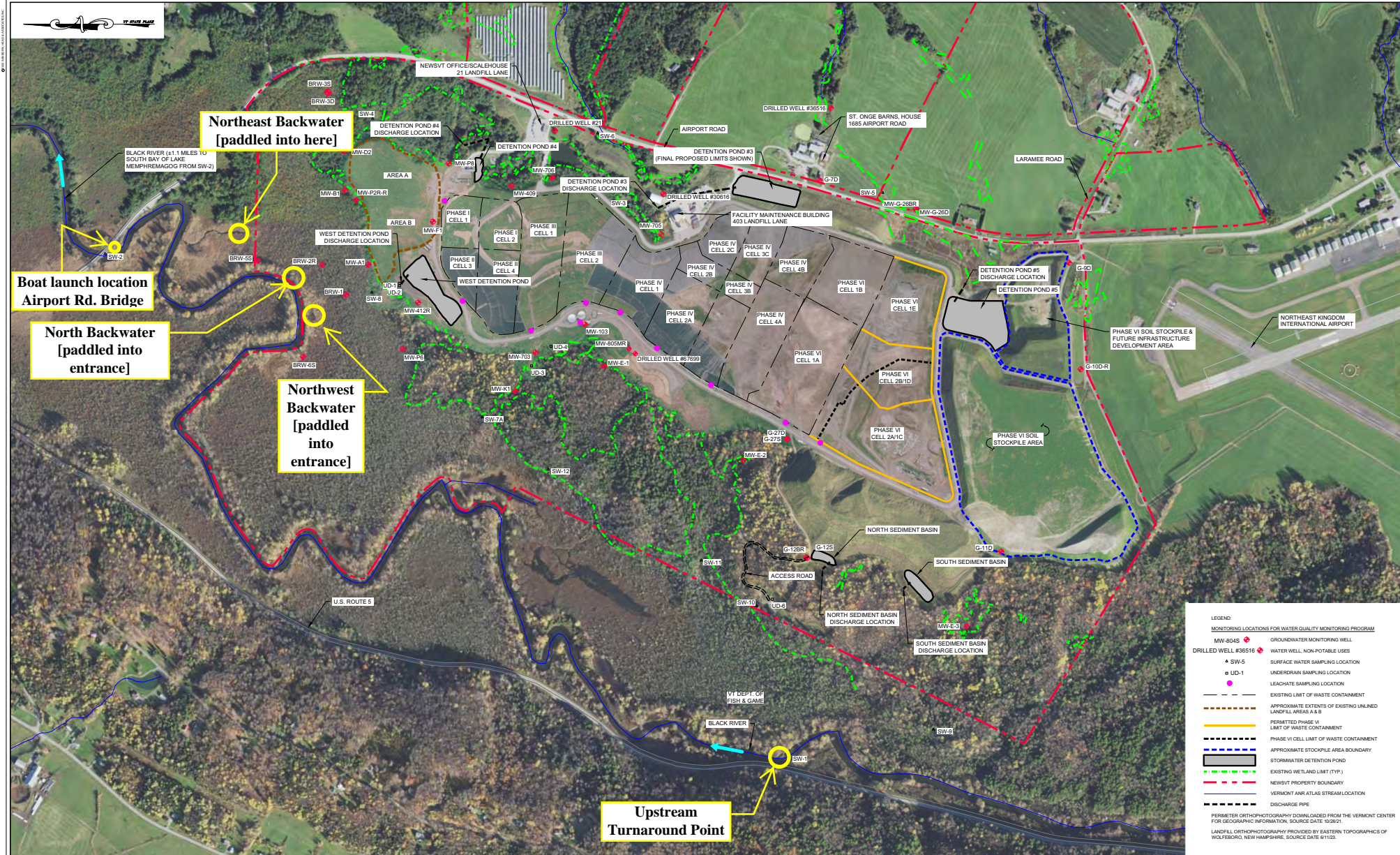
Wildlife sightings: We saw the usual frequent signs of beaver activity [cut sticks, tracks and paths through the vegetation from the water's edge] and muskrat sign [trails through the vegetation], and one turtle, but no otter signs or sightings this year. We saw a few ducks, belted kingfishers, a great blue heron, shore birds, swallows, two immature bald eagles, turkey vultures circling overhead, crows, and other unidentified birds.

Next scheduled official river inspection by boat: Late summer or early fall of 2025.

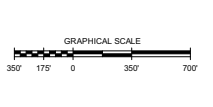
Enclosures:

- Map on ortho-photo base: "Black River Inspection Trip by Boat, 8-16-2024";
- Photo Log (3 pages, 5 photos);
- USGS Streamflow Data Table for Black River at Coventry, VT (USGS Gage #04296000); Aug. 6 to 16, 2024.

[U:\PROJECTS - WHEM\NEWSVT\Black River Inspections\2024-08-16\2024.11.04 - Memo Report, Black River Inspection by Boat on 8-16-2024, for NEWSVT - C.Heindel, WHEM.docx] or PDF.



SANBORN HEAD



NO.	DATE	DESCRIPTION	BY
Annotations for Black R. Trip on 8/16/2024 by C. Heindel, WHEM.			

DRAWN BY: T. PETIT
 DESIGNED BY: T. PETIT
 REVIEWED BY: B. BEAUDOIN
 PROJECT MGR: T. PETIT
 PIC: B. BEAUDOIN
 DATE: NOVEMBER 2023

**NEW ENGLAND WASTE SERVICES
 OF VERMONT, INC.**
 COVENTRY, VERMONT

Black River Inspection Trip by Boat
Aug. 16, 2024

PROJECT NUMBER: 1166.23
 FIGURE NUMBER: 1

- LEGEND**
- MONITORING LOCATIONS FOR WATER QUALITY MONITORING PROGRAM**
- MW-804S + GROUNDWATER MONITORING WELL
 - DRILLED WELL #36516 + WATER WELL - NON-POTABLE USES
 - ▲ SW-5 SURFACE WATER SAMPLING LOCATION
 - UD-1 UNDERDRAIN SAMPLING LOCATION
 - LEACHATE SAMPLING LOCATION
 - EXISTING LIMIT OF WASTE CONTAINMENT
 - - - - APPROXIMATE EXTENTS OF EXISTING UNLINED LANDFILL AREAS A & B
 - PERMITTED PHASE VI LIMIT OF WASTE CONTAINMENT
 - PHASE VI CELL LIMIT OF WASTE CONTAINMENT
 - APPROXIMATE STOCKPILE AREA BOUNDARY
 - STORMWATER DETENTION POND
 - EXISTING WETLAND LIMIT (TYP.)
 - NEWSVT PROPERTY BOUNDARY
 - VERMONT A&R ATLAS STREAM LOCATION
 - DISCHARGE PIPE
- PERIMETER ORTHOPHOTOGRAPHY DOWNLOADED FROM THE VERMONT CENTER FOR GEOGRAPHIC INFORMATION. SOURCE DATE: 10/29/21.
 LANDFILL ORTHOPHOTOGRAPHY PROVIDED BY EASTERN TOPOGRAPHICS OF WOLFEBORO, NEW HAMPSHIRE. SOURCE DATE: 8/1/20.

USGS 04296000 BLACK RIVER AT COVENTRY, VT

Daily Mean Discharge, cubic feet per second	
DATE	Aug. 2024
6	227
7	203
8	134
9	615
10	764
11	582
12	401
13	250
14	186
15	152
16	131
COUNT	11
MAX	764
MIN	131

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P; Date of Black R. Inspection Trip in 2024

Explanation

P	Provisional data subject to revision.
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August Mean Flow Rate, 1952-2023: **99** CFS

[2024 Aug. Mean Flow not posted as of 10/31/2024]

Source: https://nwis.waterdata.usgs.gov/nwis/inventory/?site_no=04296000&agency_cd=USGS

**PHOTO LOG:
BLACK RIVER INSPECTION BY BOAT
NEWSVT
Aug. 16, 2024**



Photo #1: Looking south toward top of Phases 1, 2 shortly after launch from Airport Rd.



Photo #2: In Northeast Backwater; Phases 1 and 2 in background.



Photo #3: Intrepid Laura Page collecting trash from blowdown in main river channel.



Photo #4: Typical river bank vegetation along main channel; water level was high enough today that very little bare riverbank sediment was exposed. Small stand of purple loosestrife in center of photo; quite rare along this stretch of river, and has not increased much over the 21 years of Black River inspection-by-boat trips.



Photo #5: 2024 group [minus Lindsey Menard, taking the photo] at pullout – very little trash this year [white bags at our feet].