



589 Avenue D, Suite 10  
PO Box 787  
Williston, VT 05495

[www.kas-consulting.com](http://www.kas-consulting.com)

802.383.0486 p  
802.383.0490 f

June 15, 2023

Mr. Dennis Fekert  
Solid Waste Management Program  
Waste Management Division  
Vermont Department of Environmental Conservation  
1 National Life Drive, Main 2  
Montpelier, Vermont 05620-3520

**RE: Summary of 2023 Inspection, Town of Halifax Closed Landfill, VT DEC Facility SWID# WH280**

Dear Mr. Fekert:

KAS, Inc. (KAS) conducted the 2023 annual inspection of the Town of Halifax closed landfill, located at 2044 Branch Brook Road in Halifax, Vermont, on Thursday, May 25, 2023. Stephen Diglio, P.E., of KAS conducted the inspection unaccompanied. The weather was cloudy and warm. This inspection was conducted in fulfillment of Condition #10 of the current Town of Halifax Certification effective from July 11, 2017 through June 30, 2027.

### Overview

The landfill cap areas all appear stable with healthy and lush vegetative growth. Sumac was still observed over a portion of the landfill cap and should be cleared as recommended. Enclosed with this letter, please find annotated photos, and a landfill map helping to illustrate observation and concerns noted.

### Specific Observations and Recommendations

**Middle Landfill Area:** The middle landfill area is the largest of the capped landfill areas. The landfill cap was observed to be in good condition overall with good vegetative cover and no major erosion or slumping. The lower half of the western face of the landfill cap still has some established sumac that needs to be cleared. The concern is that the roots from this woody sumac vegetation may penetrate the landfill cap membrane, which would allow surface water to enter the landfill. In order to maintain a stable cap while also clearing the sumac, the following sumac clearing procedure is recommended:

1. Cut the sumac tree down to ground level using a chain or hand saw,
2. Do not remove the sumac roots from the landfill cap, as this will disturb and potentially destabilize the landfill cap,
3. After all of the sumac has been cut, brush hog the landfill cap at least once a year to cut any new sumac sprouts that grow up from the cut stumps,
4. Maintain a brush hogging schedule to prevent sumac and other woody species from establishing on the landfill cap.

The east side of this landfill area is supported on a steep vegetated slope that descends towards Branch Road. During the site visit, a visual inspection of this



slope was conducted and no obvious signs of instability were observed. Given the steepness of the slope below the closed landfill, it is recommended that the town periodically inspect the slope for signs of instability, especially after large, heavy rain events. Signs of slope instability may include visible cracks in the soil, leaning or curved trees, and signs of erosion at the toe of the slope.

**Southern Landfill Area:** The landfill cap for this area was observed to be in good condition overall with no major erosion or slumping. All sumac growth appeared to have been removed from this area.

**Drainage Systems:** Runoff from the gravel pits above the landfill generally is diverted around the capped areas. The runoff control ditches and culverts were observed to be in fair condition. Runoff generated within the capped areas flows easterly toward Branch Brook. No ponded water was observed either on the landfill or in the drainage swales. The Town should continue to inspect and maintain runoff control ditches and culverts, especially after brush hogging activities, in late fall after the leaves fall down, and in early spring after the snow melts.

**Gas Control systems:** Three landfill gas vents are on the crest of the landfill. All three gas vents were observed to be in fair to good condition. The Town should inspect the gas vents when the landfill cap is brush hogged/mowed.

#### **Conclusions:**

- The Town should continue to monitor, maintain and inspect the closed landfill in accordance with all certification conditions.
- Clear remaining established sumac per the recommended procedure outlined in this inspection report and brush hog/mow the landfill one to two times a year as needed to prevent woody species from establishing.

Photos of the landfill taken on May 27, 2023 along with annotations are enclosed for reference. In addition, an annotated map from the landfill inspection has also been enclosed for reference. Please feel free to call if there are any questions regarding this inspection report.

Sincerely,

A handwritten signature in blue ink that reads 'Stephen Diglio'.

Stephen Diglio, PE  
Project Manager

cc: Mr. Lewis Sumner, Town of Halifax, KAS #610110045

Enclosure: Annotated Photos and Site Map



Photo 1 (looking north): Southern Landfill Area in good condition with lush growth.



Photo 2 (looking north): Lower portion of Mid Landfill Area in good condition.

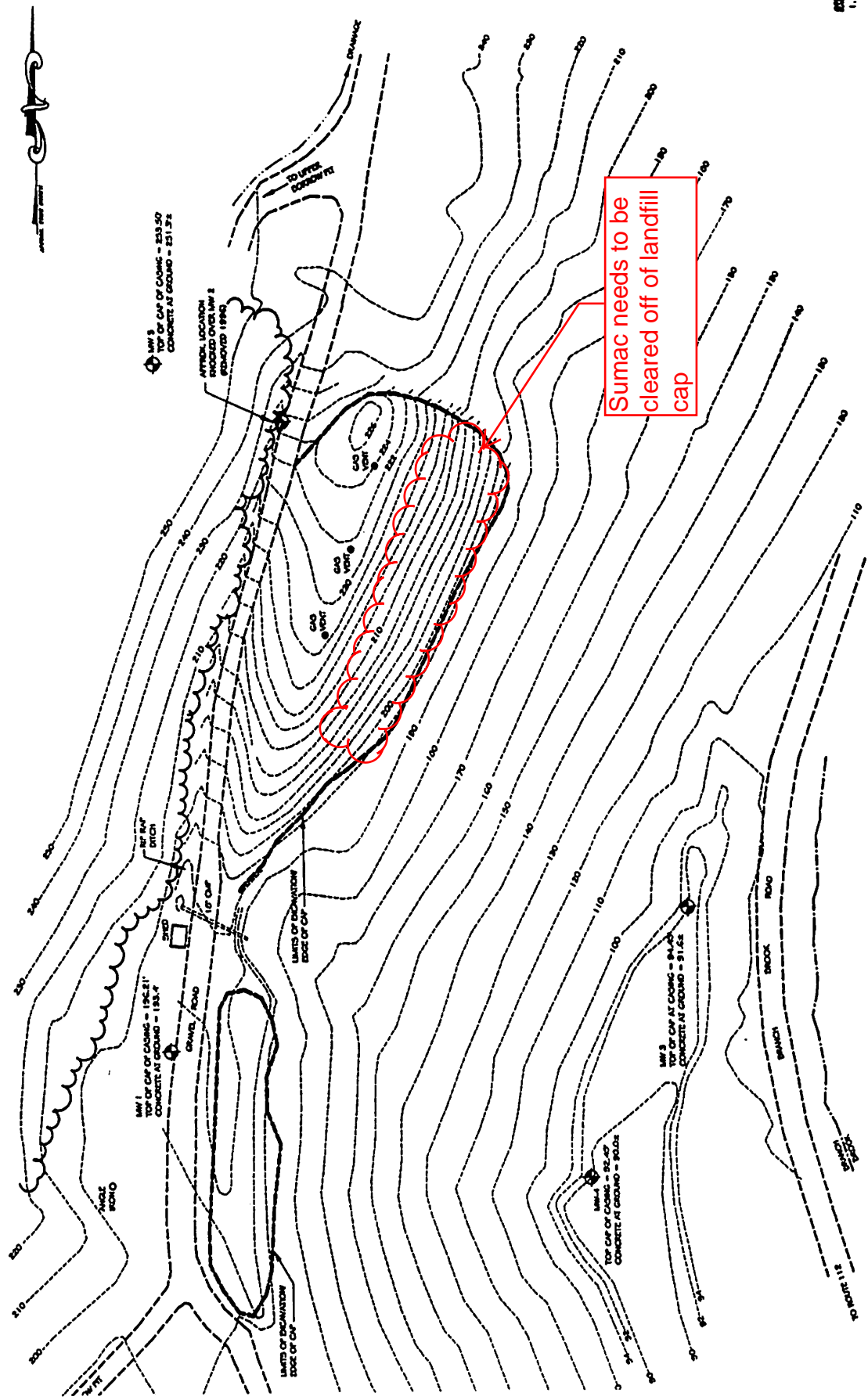


Photo 3 (looking north): Middle Closed Landfill area in fair condition. Sumac and small trees need to be removed from the landfill cap.



Photo 4 (looking south): Gas vents and top of closed landfill in fair to good condition.

Red markups by KAS 6/15/2023



Sumac needs to be cleared off of landfill cap

GENERAL NOTES: 1. THIS PLAN IS A COMPARISON PLAN OF "AS-BUILT" DATA AND "AS-PLANNED" DATA. THE "AS-BUILT" DATA IS THE RESULT OF FIELD SURVEYING AND THE "AS-PLANNED" DATA IS THE RESULT OF THE DESIGN. THE DESIGNER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE "AS-BUILT" DATA. THE DESIGNER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE "AS-PLANNED" DATA. THE DESIGNER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE "AS-BUILT" DATA.

LEGEND: --- 10' CONTOUR