



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
GRAND RAPIDS DISTRICT OFFICE



LIESL EICHLER CLARK  
DIRECTOR

October 9, 2020

VIA E-MAIL AND U.S. MAIL

Mr. Dave Latchana  
Associate General Counsel  
Wolverine World Wide, Inc.  
9341 Courtland Drive, NE  
Rockford, Michigan 49351

Dear Mr. Latchana:

**SUBJECT:** Notice of Approval with Conditions of the Area 6 Response Activity Plan as Required by the Wolverine World Wide, Inc. Consent Decree Court Case No. 1:18-cv-00039

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division, has reviewed the Response Activity Plan for groundwater investigation in Area 6 of the North Kent Study Area submitted on June 18, 2020, by Rose & Westra, a Division of GZA GeoEnvironmental, Inc. (R&W/GZA) on the behalf of Wolverine World Wide, Inc. (Wolverine). This Area 6 Response Activity Plan is a requirement of the Consent Decree (effective February 19, 2020) as described in Sections 7.4, 7.9(b), and Appendix P of the Consent Decree.

Section 20114b(3) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and as outlined in Section 15.7 of the Consent Decree, states that when a response activity plan is submitted for approval, EGLE may notify the submitter that the plan is approved with conditions, if applicable. The Area 6 Response Activity Plan is approved with the following conditions:

- **Section 1.0 Introduction:**
  - *Include a statement referencing that the groundwater investigation activities completed in Area 6 need to meet the requirements laid out in Section 7.9(b)(i)(A) and (B):  
“Define the vertical and horizontal extent of PFAS Compounds contamination as required by Part 201; and confirm and monitor the location and stability of the PFAS Compounds plume(s) once the plume(s) are defined.”*
  - *Include a statement referencing the new perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) Part 201 cleanup criteria which became effective on August 3, 2020. Please update and reference to the new criteria throughout the report as needed.*

- **Section 2.01 House Street Disposal Site:**
  - *Please update this section to include the approximate dates Wolverine used the House Street Disposal Site. Currently the text only includes reference to the dates of the property becoming a licensed disposal site under Act 87.*
  - *Include a brief discussion of what types of tannery wastes were disposed of at the House Street Disposal Site and how the waste was disposed of (i.e. unlined trenches, seepage pits, etc.).*
  - *4<sup>th</sup> Paragraph: Currently as written, this sentence says that only PFOS and PFOA are migrating from the House Street Disposal Site. However, other per- and poly-fluoroalkyl substances (PFAS) compounds in addition to PFOA and PFOS have been documented to be migrating from the House Street Disposal Site. Please update this sentence accordingly.*
  - *Last paragraph:*
    - *Reference to potential other PFAS sources in Area 6 does not remove obligations that Wolverine has under the Consent Decree to define the vertical and horizontal extent of PFAS Compounds contamination as required by Part 201; and confirm and monitor the location and stability of the PFAS Compounds plume(s) once the plume(s) are defined.*
    - *Refer to EGLE's comments on Figure 10 regarding the apparent inaccurate depiction of PFAS contamination associated with the North Kent Landfill.*
    - *The below comments were made during the public comment period for this Response Activity Plan rejecting the applicability of the references noted in this paragraph:*

*"While Schaidler et al. (2016) found PFAS compounds in a small sample of 20 shallow wells in Cape Cod, the highest concentration reported was 7 ng/l and a variety of other contaminants such as nitrate, boron, pharmaceuticals/personal care products cooccurred. ITRC (2020) discusses rain deposition which would be uniform across a broad area and not produce the plumes represented by R&W/GZA/Wolverine. The EGLE (2019a) reference also does not apply to this situation because the Robinson Township plume is in shallow groundwater and related to Fire Department usage."*
    - *If this paragraph is kept in Section 2.01, it should be noted in the text that the presence of potential other PFAS sources does not change the obligations Wolverine has under the Consent Decree.*
- **Section 2.04 Geology:** *Under Area 6 subheading, first paragraph, mentions that cross-section A-A' is constructed along the primary plume center line, which is not accurate. The House Street primary center plume line is located approximately 2,500 to 3,000-feet to the south southwest of where cross-section A-A' is depicted on Figure 5. Please update the description accordingly or create a new cross-section in the correct location.*

- **Section 2.06 PFAS Distribution in Groundwater:**
  - *EGLE notes that there is no discussion of any “secondary plumes” that appear to be leaving the House Street Disposal Site based on monitoring well and residential well sampling data and depths (example being the contamination found in MW-7, MW-9, and MW-10). Please add in discussion of potential “secondary groundwater plumes” (plumes/groundwater contamination in addition to the primary plume referenced).*
  - *Subheading: Distribution of PFAS in Area 6 - 2nd paragraph; EGLE notes that Figure 10 appears to be over-exaggerating PFAS groundwater contamination associated with North Kent Landfill and it is unclear what data is being used to create the isoconcentration boundary. Refer to the comments below for Figures 9, 10, & 11.*
  - *The presence of other potential PFAS sources in Area 6 does not remove obligations that Wolverine has under the Consent Decree to define the vertical and horizontal extent of PFAS Compounds contamination as required by Part 201; and confirm and monitor the location and stability of the PFAS Compounds plume(s) once the plume(s) are defined.*
  
- **Section 2.07 Applicable Part 201 Cleanup Criteria and Project Action Levels:**
  - *Update this section and the referenced project action levels to reflect the new PFOA and PFOS Part 201 cleanup criteria which became effective on August 3, 2020.*
  - *4th Paragraph: Update the purpose to also include: “Define the vertical and horizontal extent of PFAS Compounds contamination as required by Part 201; and confirm and monitor the location and stability of the PFAS Compounds plume(s) once the plume(s) are defined”.*
  
- **Section 3.0 Proposed Statement of Work:**
  - *Please update this section so it is clear to the reader that each monitoring well location proposed is a nested well cluster.*
  - *Based on area monitoring wells and residential well sampling results and depths, add any currently known targeted well screen depths to this Response Activity Plan which would be necessary to help obtain vertical and horizontal definition. This information will also be needed by drilling subcontractors to provide accurate cost estimates.*
  - *Per the requirements of the Consent Decree, Wolverine must define the vertical and horizontal extent of PFAS Compounds contamination as required by Part 201; and confirm and monitor the location and stability of the PFAS Compounds plume(s) once the plume(s) are defined within Area 6. It is anticipated that after this first round of drilling, more monitoring wells will be needed to meet that objective.*
  - *Last paragraph, should be updated to say “...10ng/L PFOA + PFOS, or applicable criteria.”*
  
- **Section 5.0 Sampling and Analytical Procedures:** *Under the third bullet, mention that “Following the full year of quarterly sampling of the well network,*

*R&W/GZA, in consultation with EGLE, will evaluate the data and determine appropriate next steps for future sampling schedule.”*

- **Section 7.0 Investigation Derived Waste:** *Per the Consent Decree Statement of Work this section needs to be updated to read: “Soil cuttings and development/purge water from the well installations and sampling will be containerized and transported to the former Wolverine House Street property for staging/storage until off-site treatment/disposal or other approved handling can be arranged.”*
- **General Figure Comment:** *Color coding for detections above detection level and less than 4 ng/L should be identified on the figures in a color other than white. Currently, it is unclear if white is a lack of data, or if low level detections have been identified.*
- **Figure 3:** *This figure does not show a groundwater divide on House Street to the northwest and southeast. This computer-generated contouring map needs to be updated to reflect what is discussed in the text of the plan.*
- **Figures 6, 7, & 8:** *Why is the estimated groundwater table being depicted as being located within and crossing through clay layers? Geologic interpretation should be used, and these cross-sections need to be updated to appropriately identify the multiple aquifers (shallow, intermediate, deep) and groundwater elevations present within the study area depending on which aquifer the well is screened in.*
- **Figures 9, 10, & 11:**
  - *What data is this isoconcentration map using to draw the extent of PFAS contamination associated with the North Kent Landfill? It appears the modeling software has overexaggerated the known plume extent. Also, refer to the sampling results of the residential wells located in the North Kent Landfill Sampling Area.*
  - *The plume emanating from House Street towards the Rogue River is not identified as a continuous plume as it was in figures attached within Appendix P of the Consent Decree. Professional geologic interpretation and judgement should be used to estimate the extent of PFAS contamination, even if data is lacking at points between. Update these figures accordingly.*

EGLE’s approval is conditioned on Wolverine making the above changes to the Response Activity Plan. If the above changes are not made, EGLE’s approval of the Response Activity Plan is withdrawn.

This approval with conditions of the Response Activity Plan is based upon the representations and information contained in the submittal. EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed.

If you should have further questions or concerns, please contact the Project Manager, Karen Vorce, Remediation and Redevelopment Division, Grand Rapids District Office, at 616-439-8008, or at [VorceK@michigan.gov](mailto:VorceK@michigan.gov).

Sincerely,



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cc: John Byl, Warner Norcross & Judd LLP  
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