Township of Woolwich
Technical Remediation Advisory Committee (TRAC)
Meeting Minutes

Thursday, Nov 14, 2024
6:18 p.m. – 7:22 p.m.
Hybrid Meeting
Hosted in Council Chambers and on Zoom
24 Church Street West, Elmira

Present from TRAC:	Councillor Nathan Cadeau, TRAC Chair Mayor Sandy Shantz, Councillor Eric Schwindt Tiffany Svensson, Technical Expert *Susan Bryant, TRAC Community Member* Bryan Broomfield, TRAC Community Member Linda Dickson, TRAC Community Member Dr. Sebastian Siebel-Achenbach, TRAC Community Member *Ryan Prosser, TRAC Community Member* Karl Belan, Region of Waterloo
Stakeholders:	*Hadley Stamm, LANXESS Corporation* *Jason Rice, Ministry of the Environment, Conservation and Parks* *Geoff Moroz, Region of Waterloo* *Trevor Heywood, Grand River Conservation Authority*
Present from Staff:	Stacey Bruce, Committee Support Specialist
Regrets:	Eric Hodgins, TRAC Community Member David Hofbauer, TRAC Community Member

**Italics indicate a virtual participant.*

Call to Order at 6:18 P.M.

Land Acknowledgement

Chair Councillor Nathan Cadeau read a Land Acknowledgement.

Disclosures of Pecuniary Interest

No pecuniary interests were declared.

Approval of Previous Minutes

Moved by Dr. Sebastian Siebel-Achenbach
Seconded by Karl Belan

That the Technical Remediation Advisory Committee (TRAC) minutes of June 13, 2024, be adopted as presented.

It was discussed that due to an oversight at the September 12, 2024, meeting, where a motion to adopt the June 13th minutes was mistakenly moved by a non-voting member, the motion was invalid. A new motion was then made to approve these minutes, as they remain in draft form.

…Carried.

Moved by Dr. S. Siebel-Achenbach
Seconded by Susan Bryant

That the Technical Remediation Advisory Committee (TRAC) minutes of Sept 12, 2024, be adopted as presented.

…Carried.

Delegations

None.

Updates

Replacement of On-Site Containment Well PW5 with PW6

LANXESS noted that the well PW6 has been drilled, with electrical work progressing despite subcontractor scheduling challenges. A pre-system startup review (PSSR), a required internal procedure for the chemical plant was noted to be scheduled for next week. It was highlighted that the well is expected to be operational by year-end.

In response to committee questions, it was clarified that electrical work was completed by a contractor in October and involved stringent safety and utility standards due to the chemical plant's requirements. It was also clarified that the well is expected to have performance goals similar to PW5.

Ontario Ministry of the Environment, Conservation and Parks (MECP)

Receipt and Review of LANXESS Proposal to Amend ECA 0831-BX6JGD Biomonitoring Requirements

It was noted that the Ministry received LANXESS' new biomonitoring work plan proposal this month, which has been shared with TRAC. Background was provided, indicating that this follows the Ministry's rejection in April 2024 of LANXESS' November 2023 proposal to eliminate the clam and leech biomonitoring study under Condition 17(2) of the long-term Collection and Treatment System (CTS) ECA for sewage works. The Ministry commented that it had opposed eliminating the study and directed LANXESS to develop and implement a new biomonitoring program. The Ministry is now forming a review team and will work with their Permissions Branch to address next steps and scheduling related to the review of LANXESS' new biomonitoring program submission.

MECP Comments on the LANXESS Elmira 2023 AMR

The Ministry provided an overview of its comments on LANXESS' 2023 Annual Monitoring Report (AMR), required under the CTS sewage works ECA and control orders for groundwater remediation. It was noted that the AMR serves as a performance record to inform the Ministry of remedial operation issues and solutions, facilitating timely collaboration with LANXESS.

It was highlighted that key reporting requirements of the AMRs include groundwater and surface water monitoring, contaminant concentration plume maps, and monitoring data trend evaluations. It was also mentioned that the AMRs are linked to additional reporting, such as sewage works operational data provided in the monthly progress reports and the annual plume stability analysis, which examines long-term groundwater trends and visualizes changes over time. It was clarified that some other environmental monitoring requirements under the control orders are through the annual environmental audit report, although that report focuses on LANXESS' operational compliance aspects rather than remediation work monitoring covered in the AMR.

It was noted that feedback from the Ministry on LANXESS' 2023 AMR has now been communicated to LANXESS in a letter dated November 8, 2024, and shared with TRAC.

It was explained that the Ministry's AMR review requested additional details and data evaluation related to pulse pumping at off-site pumping well E7, specifically focusing on back diffusion. The Ministry also suggested consideration for linking this with additional short-term pulse pumping studies at other pumping wells, discussed during the September 10, 2024, Technical Experts Meeting. It was noted that these other studies are to be evaluated as part of LANXESS' next steps, with a proposed work plan currently being developed by the company.

The Ministry also noted recommending further information being provided in the AMR on residual NAPL (Non-Aqueous Phase Liquid) near the M2 landfill being contained on-site, along with further interpretation of changes in NDMA and chlorobenzene groundwater concentrations at monitoring wells, specifically addressing increases or decreases between years, in alignment with AMR recommendations on refining the groundwater monitoring program.

Additionally, the Ministry commented that they agreed with LANXESS' proposal of no changes to the groundwater monitoring program for 2024, citing no significant data gaps.

Regarding LANXESS' proposed next steps, based on the Aquifer Remedial Evaluation discussed at the September 10, 2024 Technical experts meeting, the Ministry noted LANXESS' plans to evaluate enhanced treatment and remediation technologies for NDMA and chlorobenzene mass removal. Comment was provided that the Ministry suggested that future AMRs include updates on the attenuation status of these compounds in groundwater, based on water quality and other applicable evaluations.

The committee inquired about the timing for LANXESS to fulfill these expectations. It was noted that these expectations are anticipated to be reflected in the 2024 AMR, which is to be submitted to the Ministry by the end of March 2025, allowing time for concerns to be evaluated and addressed by LANXESS. It was noted that monthly progress discussions are held between the Ministry and LANXESS to resolve issues or provide clarifications when requested. It was also emphasized that no compliance instruments have been issued to LANXESS for reporting violations under the ECA.

The Ministry clarified that if significant data gaps or non-compliance issues were identified in the AMR, such as missing key monitoring and reporting requirements specified in the ECA, they could issue a comment response letter for voluntary compliance or a compliance instrument to address a violation. While the current AMR is deemed acceptable with recommendations for improvements in future reports, the Ministry highlighted its ability to use various compliance tools to address any major deficiencies.

A correction to the naming of Shirt Factory Creek in the Ministry's comments on LANXESS' 2023 AMR was noted by the committee.

The committee asked LANXESS for clarification on DNAPLs and their potential off-site presence, referencing Alan Deal's, GHD September 12th TRAC presentation, which stated there was no indication of off-site migration. The committee expressed ongoing uncertainty about the validity of this assessment and suggested that LANXESS provide a more thorough response in the 2024 AMR. It was also noted that draft correspondence from GHD, provided via email on behalf of LANXESS, contains relevant information related to this issue, although it is not directly linked to the AMR. It was explained that it had been suggested to reformat this draft response into a formal letter with a date, signature, and issuer for clarity and official record-keeping. Additionally, it was proposed that LANXESS's technical response be converted into presentation slides to facilitate further discussion at the December 2024 TRAC meeting.

Clarification and supporting evidence in plain language to address this concern was further requested from LANXESS. The question was acknowledged as relevant but deferred to later in the meeting for further discussion.

MECP Creek Floodplain Soil Study

In response to a committee question, the Ministry provided an update on their soil sampling study conducted on some farm properties along Canagagigue Creek. It was explained that the Ministry's soil results will first be shared with the property owners in coordination with Waterloo

Region Public Health and that summary letters for this are expected to be finalized by the end of November 2024. It was noted that the Ministry's technical report for the soil study is anticipated to be available to LANXESS and TRAC in early December 2024 and an update will be provided at the TRAC December meeting.

LANXESS Canada Co.

Canagagigue Creek Human Health & Ecological Risk Assessment (HHERA) Revisions

It was noted that discussions with the Ministry on the Human Health & Ecological Risk Assessment (HHERA) are ongoing, with a meeting scheduled shortly to address comments, work towards consensus, and determine whether additional sampling is needed for approval.

GHD Comments to the Technical Remediation Advisory Committee

It was noted that the committee received technical draft correspondence via email regarding GHD responses to TRAC inquiries on behalf of LANXESS. LANXESS has been asked to reformat this into a formal letter for the TRAC committee. Both the original email and the formalized letter will be circulated before the next meeting to support a more informed discussion.

It was noted that this technical response from GHD requires further clarification, and challenges in summarizing the information comprehensively were acknowledged. The response was described as addressing loose ends from previous investigations, including east-side and former gravel pit work, and a commitment was made to formalize and present it as PowerPoint slides at TRAC's December meeting.

The need to address committee questions, including DNAPL migration concerns, was also recognized. It was noted that preliminary observations indicate high on-site concentrations without evidence of off-site migration, but additional explanation from consulting experts is planned. Apologies were provided for the initial informal draft format, and ongoing efforts to improve the clarity and presentation of the information were noted.

2018 Technology Evaluation Update

It was noted that the 2018 Technical Evaluation has recently been reviewed and finalized after LANXESS addressed minor comments and resolved loose ends from prior investigations. This groundwater evaluation was described to include considerations for NDMA cleanup technologies and proposed pilot studies to test in-situ treatment methods, such as chemical oxidation using Regenesis compounds. As previously noted, these compounds have an effective radius of only 13 meters from potential wells but could be applied in suitable locations with the highest NDMA concentrations, provided access is granted by the landowner and there are no structural impediments, such as existing buildings, restricting entry or operations.

Additionally, it was noted that LANXESS is moving forward with the 2025 Aquifer Remedial Evaluation study and has submitted an internal company funding request for this initiative. It was noted GHD is preparing a work plan for this and that this work requires Ministry approval before implementation. It was further described that this proposed study involves temporarily ceasing pumping at interior off-site wells to stabilize groundwater for sampling. The objective is to better understand NDMA and chlorobenzene levels, as well as other groundwater properties such as oxygen levels and pH, and to conduct in-situ bench testing at a GHD Laboratory in Niagara Falls aimed at evaluating groundwater conditions and different chemical oxidative and natural additive treatment technologies.

In response to committee interest and concerns, it was emphasized that on-site wells and key perimeter wells will continue operating during the proposed study to maintain containment and prevent DNAPL migration or impacts to the Canagagigue Creek. It was further noted that this study is intended to better understand the central and eastern off-site NDMA and chlorobenzene plumes.

At this point Jason Rice left the meeting virtually.

In response to a committee question, it was noted that this temporary study, contingent on Ministry approval, is anticipated to last one to six weeks, with plans for weekly monitoring of well water elevations and concentrations.

It was noted that TRAC has not received the finalized Screening of Enhanced Technologies for Offsite Groundwater Remediation of the Elmira Drinking Water Aquifer to date.

Updated Biological Monitoring Fish Tissues Study Design

At this point Susan Bryant left the meeting virtually.

It was noted that an updated biological monitoring study focused on fish tissue sampling has been submitted to the MECP as an alternative to the clam and leech biomonitoring study. It was described that this proposed plan involves biennial electrofishing at locations previously used in the clam and leech study to assess in-situ compounds in small-bodied fish. This approach was considered logistically simpler and more practical by the committee.

The committee expressed interest in reviewing further details of the study's design, including tissue sampling, fish quantities, and compositing methods. These details are expected to be provided in a forthcoming plan prepared by GHD on behalf of LANXESS.

Susan Bryant rejoined the meeting virtually.

In clarification to the committee a response was provided that if consistent results from the study show no harm to fish after two to three consecutive sampling events, a request for study relief may be submitted by LANXESS for MECP approval. The committee was also informed that this

item will be reviewed further at the December meeting to allow additional time for review and discussion of this document received today.

In response to committee questions, it was discussed that the new fish tissue monitoring study will assess potential impacts on fish tissue, replacing the previous clam and leech study. While not directly comparable, it was noted that the study will use background data from the clam and leech study to evaluate potential sediment or water contamination effects on fish.

Other Business

2028 Order Deadline Remediation Frameworks Discussion

The committee discussed the 2028 control order deadline and the development of the associated alternative remediation framework as a standing discussion item at TRAC meetings.

It was noted that the committee is awaiting LANXESS's draft proposal, which will outline updated remediation objectives and reasonable options for consideration by the committee and the broader community. This process was acknowledged as critical, requiring significant effort and time to move forward collaboratively.

The draft proposal, anticipated by Q3 2025, raised questions about whether this timeline aligns with the committee's expectations. It was emphasized that the proposal is part of broader discussions about the future control order post-2028 and includes potential new technologies for remediation.

The committee sought clarity on LANXESS's work plan and technology evaluation documents, considered first steps in aligning schedules and timelines. It was noted that the ECA process remains distant, requiring extensive coordination with the Ministry to finalize requirements, including evaluating in-situ or alternative methods for enhancing NDMA destruction. It was further emphasized that this assessment depends on scientific studies planned for 2025, with remediation expected to take decades due to the plume's wide and diffuse nature and the extremely low concentration cleanup standard of parts per trillion.

The ECA process was further described as requiring integration of scientific findings and stakeholder engagement, including collaboration with TRAC and the Region of Waterloo, a key stakeholder focused on providing clean drinking water to growing municipalities. It was highlighted that efforts are focused on determining achievable objectives for the new ECA.

It was further noted that LANXESS is updating the 2018 Technical Evaluation study and finalizing a work plan for new remediation technologies, while Arcadis is reviewing the Conceptual Site Model (CSM) on behalf of the company, with submission of the work plan to the Ministry anticipated this December. It was noted that ongoing discussions will continue with the Ministry, the Region, and TRAC regarding the development of the remedial framework, remedial work, and a draft control order, with a target of Q3 2025. The need for further scientific studies

in 2025 was emphasized, as key findings are expected to inform the draft control order framework by Q3 2025.

The committee sought clarification and raised concerns about awaiting a draft proposal timeline until Q3 2025, as this could delay the starting point for public and community engagement. The committee expressed a preference for expediting the process to avoid setbacks if scientific findings are unfavorable as this could potentially hinder future planning. It was agreed to expedite the timeline through discussions with the Ministry and involve TRAC members for stakeholder input at a future meeting. The committee also pointed out that a fully developed proposal or draft is not necessarily required to proceed, as high-level discussion points from the company were noted to be sufficient to address the needs of committee members and facilitate progress.

The committee also emphasized the importance of understanding the Ministry's requirements and timelines to align with the priorities of the committee and LANXESS for approval of the ECA process. The legal nature of the ECA document and the challenges in balancing technical, legal and stakeholder requirements was further noted.

A question was raised by the committee regarding how LANXESS and the Ministry plan to communicate updates and progress with stakeholders, particularly the community. The discussion then shifted to broader ongoing strategies for community engagement and the prioritization of immediate logistical updates under other final agenda items.

TRAC Biannual Presentation to Council

The committee discussed preparing their February 2025 presentation to the Township Council. It was highlighted that updates are shared on the committee's EngageWR page to support public involvement and that this page will be transferred to the Social Pinpoint platform in 2025. Additional strategies, such as one-page summaries in local media and townhall or workshop presentations, were suggested to solicit public feedback. It was recommended to wait for a proposed remediation timeline and sufficient relevant information before engaging the public further.

In response to committee concerns about the 2025 remediation study timeline and its impact on proposing a remediation plan before engaging the public, it was clarified that Ministry approval is required prior to commencing any proposed scientific work. It was noted that a work plan is expected to be submitted to the MECP in December, with an estimated three-month review period. It was highlighted that fieldwork is anticipated to begin in Q2 2025, focusing on groundwater sampling to assess changes in oxygen, pH, and contaminant concentrations over several months. Data processing and analysis were also noted to be expected by Q3 2025, with findings potentially available by year-end. While it was emphasized that this timeline is considered realistic, the lengthy process was acknowledged as potentially frustrating to the community and in response disappointment was expressed by the committee.

It was noted that the committee's upcoming presentation is expected to highlight LANXESS's 2025 work plan, key outcomes from the recent September 10th Technical Expert Meeting, current initiatives, critical timelines and actions leading to the 2028 control order deadline, reference the 2023 plume stability presentation by Joe Ricker, and proposed project work and timelines. Additionally, it was noted that an introduction of LANXESS's new plant manager to Council may be coordinated with this presentation. It was emphasized that final presentation approval will be sought from the TRAC committee before it is delivered to Council.

No further discussion occurred around this, but it was suggested that committee members provide input on the upcoming presentation, via email to the Chair and Technical Expert within the next two weeks.

2025 Meeting Schedule

It was noted that a 2025 meeting schedule is being developed in collaboration between LANXESS, TRAC's Technical Expert, and the Chair to align with key milestones and TRAC's Terms of Reference. It was also noted that after this, TRAC's 2025 meeting schedule will be discussed at the committee's December meeting.

Correspondence

This item was not discussed.

Next Meeting – December 9, 2024

The December TRAC meeting, originally scheduled for December 12, 2024, was rescheduled to Monday, December 9, 2024, to accommodate members' availability. This adjustment was agreed upon to ensure quorum while avoiding conflicts with other commitments.

Adjournment (7:22 P.M.)

Moved by Bryan Broomfield
Seconded by Ryan Prosser

The committee adjourns to meet again on December 9, 2024.

…Carried.

Recorder: Stacey Bruce, Committee Support Specialist