



Summary of Qualified Person in Risk Assessment (QPRA) Workshop

RA Stream – QPCO Workshop, March 4, 2026

Overall Workshop Summary

The QPRA workshop brought together Ontario risk assessment practitioners, along with some other environmental consultants and MECP staff to discuss recurring challenges, emerging practices, and opportunities to improve consistency and predictability in brownfield risk assessment.

Two presentations were delivered by members of the QPRA Working Group, followed by a breakout session where participants divided into six groups and discussed challenges and solutions related to topics affecting risk assessment work in Ontario.

Across all sessions, participants discussed regulatory expectations, impacts of conservatism on project outcomes, challenges associated with evolving science (particularly PFAS), and the importance of early and sustained communication with the MECP. The discussions highlighted effective strategies currently used by QPRAs and identified priority focus areas for both QPCO and the MECP.

The information on the following pages summarizes the discussion points from six breakout groups that each focused on a different topic. These notes are intended to be shared with the MECP to help advance future discussion and collaboration to improve the overall risk assessment process in Ontario.

Topic 1 — Navigating MECP Comments

Session Description

Risk assessors report challenges in addressing MECP comments due to unclear expectations, varying comments between reviewers, and differing thresholds for supporting evidence. These challenges create delays, rework, and uncertainty for clients. This discussion focused on how to manage, anticipate, and meaningfully respond to MECP comments to improve RA efficiency and outcomes.

Discussion Summary

Participants noted that review outcomes often depend on the assigned reviewer, with previously accepted approaches being rejected in subsequent submissions. This variability was noted to create uncertainty for project planning, timelines, and client expectations.

A recurring concern was the shifting nature of technical expectations, especially for ecological risk assessments, where qualitative approaches are increasingly replaced by quantitative requirements without clear advance notice. Participants also highlighted interpretive gaps related to off-site impacts, with uncertainty around what level of assessment or discussion is required.

The group emphasized that early and proactive engagement with MECP reviewers can help clarify expectations and reduce late-stage revisions. Building collaborative relationships with reviewers was viewed as an effective strategy to manage uncertainty, although participants agreed that systemic improvements are needed to address these challenges more broadly.

Key Discussion Points

- MECP review comments can vary by reviewer, particularly among Vendor of Record (VOR) reviewers.
- Technical requirements, especially for ecological risk assessments, are changing, sometimes without clear or timely communication.
- There is uncertainty around expectations for addressing off-site impacts in risk assessments.
- Early consultation and ongoing communication with MECP reviewers help manage risk and avoid late-stage surprises.
- Long-term solutions require improved guidance, training, and communication mechanisms.

Identified QPCO Focus Areas

- Promote peer-to-peer education to align QPs with current MECP expectations and practices.



- Support best practices for early engagement and clear communication with MECP reviewers.
- Assist in disseminating updates and clarifications related to risk assessment expectations.

Identified MECP Focus Areas

- Provide updated and consolidated risk assessment guidance that clearly outlines reviewer expectations.
- Standardize training for VOR reviewers to improve consistency in review comments.
- Improve communication mechanisms to ensure changes in expectations are shared promptly with QPs such as an online portal that includes all MECP updates and newsletters.

Handout 2 — Tier 2 vs Tier 3: Decision-Making, Expectations & Client Communication

Session Description

Determining whether to pursue a Tier 2 or Tier 3 RA involves balancing regulatory requirements, site-specific conditions, uncertainty, timelines, and client expectations. Risk assessors note that while some Tier 3 triggers are clear, others arise during review, creating challenges for planning, budgeting, and maintaining client confidence. This discussion focused on how QPRAs navigate Tier classifications, communicate expectations to clients, and manage the uncertainty associated with potential Tier transitions.

Discussion Summary

The group discussed the key factors that influence whether a risk assessment (RA) is pursued as Tier 2 or Tier 3 under O. Reg. 153/04. A primary consideration identified was client timeline, as some clients may prefer Tier 2 to accelerate RSC filing, even if remediation is required to fit Tier 2 assumptions and may ultimately increase overall costs.

The presence of off-site risk was identified as a critical decision point, as Tier 2 risk management measure (RMM) options may be insufficient where off-site receptors are involved, making Tier 3 more appropriate. Flexibility in selecting RMMs was also highlighted, with Tier 3 sometimes preferred to avoid imposing unnecessary or overly conservative measures.

To improve predictability and consistency in Tier 2/3 decision-making, the group emphasized the importance of early expectation-setting with clients, high-quality ESA characterization, and involving the risk assessment team early in project planning. Early pre-consultation with both MECP and the site owner was also identified as a best practice to align expectations and reduce uncertainty.

Finally, the group discussed the role QPCO could play in improving clarity around Tier 2/3 classifications, noting that clearer communication tools would help QPRAs explain decision-making and trade-offs to clients.

Key Discussion Points

- Early pre-consultation with MECP is valuable to support appropriate Tier 2 vs. Tier 3 decisions, particularly where off-site risks or complex site conditions exist.
- Client timelines strongly influence Tier selection
- Off-site risk can limit Tier 2 feasibility
- Early communication helps manage expectations



Identified QPCO Focus Areas

- Develop a communication piece or guidance document in consultation with MECP explaining Tier 2 vs. Tier 3 decision-making for the QP community and clients.
- Support consistent messaging that helps QPRAs manage client expectations related to timelines, cost, flexibility, and regulatory risk.
- Encourage best practices such as early RA team involvement and strong site characterization to improve defensibility and predictability of tier selection.

Identified MECP Focus Areas

- Develop a communication piece or guidance document (with support from QPCO) explaining Tier 2 vs. Tier 3 decision-making for the QP community.

Handout 3 — RA vs RM Boundaries: Preventing Risk Assessment by Risk Management

Session Description

QPRAs report pressure for Risk Management Measures (RMMs) driven by formulaic triggers rather than site-specific evidence. Risk management (RM) requirements can vary by district, leading to inconsistent expectations for vapour mitigation details and RM justification. This discussion focused on distinguishing RA from RM, clarifying expectations for RMM detail, and reducing the risk of over-conservatism unintentionally driving RM requirements.

Discussion Summary

The discussion focused on identifying opportunities for clearer guidance, shared learning, and improved communication among practitioners and regulators. A recurring challenge identified by participants was the lack of flexibility within the current framework to apply statistical tools, averaging, or professional judgment when characterizing contaminant extent and exposure relevance. Participants emphasized that heterogeneous contamination scenarios are frequently treated the same as widespread impacts, leading to overly conservative outcomes.

The group also identified variability in RMM expectations across MECP districts, particularly with respect to vapour mitigation systems and default pathways such as garden produce consumption. While participants acknowledged the rationale for district-level risk variability, they expressed concern about predictability and transparency.

Key Discussion Points

- Conservative RA assumptions and limited data can drive RMMs that can result in unnecessary or disproportionate RMMs given site conditions or proposed land use.
- Limited ability to use averaging, statistical methods, or contaminant distribution considerations constrain meaningful risk differentiation.
- Increased site characterization does not necessarily reduce mitigation requirements under the current framework.
- Certain RMMs, such as vapour barriers or garden produce restrictions, are frequently required even where exposure scenarios are unlikely or impractical.
- Expectations for RMM detail and justification vary by MECP district, affecting predictability and consistency.
- The absence of accepted quantitative or qualitative tools for some pathways limits options other than implementing RMMs.



Identified QPCO Focus Areas

- Development of case studies (real or generic) illustrating acceptable RA–RM boundaries and alternatives to overly conservative RMMs.
- Creation or facilitation of a centralized CPU database to improve access to precedents and accepted wording.
- Improved communication and knowledge sharing among QPs regarding district expectations and acceptable strategies.
- Work with the MECP to Prepare detailed guidance on addressing exposure pathways not explicitly covered in existing rationale documents (e.g. garden produce ingestion, incidental groundwater ingestion/contact and trench vapour inhalation)
- Discuss the RMM approaches with the MECP, and potential strategies to reduce conservatism
- Identification of commonly problematic pathways and discussion of generally accepted assessment approaches, where available.

Identified MECP Focus Areas

- Provide additional guidance and flexibility around interim property use with CPUs and existing infrastructure/property use through an RA and RSC approval

Handout 4 — Conservatism in Exposure Assumptions: Defaults vs Site Reality

Session Description

QPRAs have reported frequent challenges for exposure assessments for pathways such as garden produce ingestion, trench-air inhalation, and shallow groundwater exposures. Default exposure assumptions do not always reflect site reality. This discussion focused on how to document, communicate, and defend exposure assumptions while navigating regulatory constraints and minimizing unnecessary conservatism.

Discussion Summary

The group discussed uncertainty around exposure durations, particularly for trench workers. The group also questioned how predicted outdoor air risks should be addressed within a risk assessment under 153/04 and whether risks could be adequately justified through modelling and documentation alone, or whether additional field data such as ambient air sampling may be required in some cases. Participants emphasized the need for defensible, transparent approaches that remain aligned with regulatory expectations.

There was broad agreement that clearer and more consistent guidance from regulators would help reduce rework and late-stage issues. Recommendations for front-loading detailed exposure pathway rationale in early submissions (i.e. PSF stage) was identified as an effective strategy to obtain feedback earlier in the process. Communication gaps, particularly around procedural changes versus reviewer-specific preferences, were highlighted as an ongoing concern.

Key Discussion Points

- Default exposure assumptions do not always reflect site reality, particularly for low-likelihood or short-duration pathways.
- Uncertainty exists around trench worker exposure durations and appropriate treatment of trench-air inhalation.
- Outdoor air exposure pathways raise questions about when modelled risk can be justified versus when confirmatory sampling is needed.
- Acceptance of exposure assumptions can vary between submissions, reviewers, or overtime, leading to inconsistencies.
- Distinguishing between formal procedural changes and individual reviewer expectations is challenging under current review processes.
- Providing comprehensive exposure pathway justification early in the process can reduce the risk of later objections or rework.

Identified QPCO Focus Areas

- Support development of clearer, consistent approaches for assessing non-typical exposure pathways such as trench air and produce ingestion.



- Explore options for documenting and defending site-specific exposure assumptions within the regulatory framework.
- Identify and communicate best practices for front-loading exposure pathway information in planning and scoping documentation.
- Facilitate discussion or guidance on modelling options for trench-air exposure, including strengths and limitations.

Identified MECP Focus Areas

- Provide detailed guidance on expectations for exposure pathways that require quantitative modeling, such as trench air.
- Improve communication around MECP procedural changes to distinguish them from VOR reviewer-specific preferences.
- Increase frequency or clarity of MECP updates to reduce uncertainty and reliance on review comments for information on MECP procedural changes.

Handout 5 — Pre-Consultation: Increasing Reliability & Utility

Session Description

Pre-consultation is required for Tier 2 RAs and for Tier 3 RAs via Pre-submission form (PSF) submission. QPRAs have reported variability in the utility and reliability of pre-consultation through PSF submission. This discussion focused on how QPRAs prepare effective pre-consultation submissions, what feedback is most valuable, and how to increase consistency and utility of the process.

Discussion Summary

The group emphasized that meeting with MECP prior to submitting a PSF is highly advantageous, particularly for complex sites, PFAS, or sites involving new or evolving science. Effective pre-consultation should focus on clearly buttoning down the conceptual site model (CSM) prior to pre-consultation, presenting a concise RA approach summary, and proposing defensible sampling plans. Ensuring alignment with the District Engineer was seen as critical, given that perspectives and expectations can vary by region.

Participants noted that PSF submissions are becoming increasingly large and complex, and that clearer guidance on required appendices and the value of optional supporting materials would be beneficial. A well-prepared RA approach appendix, tailored to highlight the key issues where feedback is most needed, was identified as especially valuable in driving efficient progression into the RA phase.

There was discussion around MECP capacity, with the understanding that Ministry resources are often prioritized toward more complex sites. As a result, participants suggested that more iterative consultation during the RA process, not just at PSF submission, would help proponents better understand and respond to MECP comments. The group also noted the distinction that meetings are mandatory for Tier 2 RAs but not for Tier 3, influencing consultation strategies.

Overall, participants observed that MECP appears genuinely interested in moving projects forward, and that additional clarity, particularly regarding CSM expectations and components of PSF appendices, would further improve process efficiency and predictability.

Key Discussion Points

- Early pre-consultation is beneficial for complex sites, PFAS, or sites involving new or evolving science.
- A defensible CSM and clear RA approach are useful for effective feedback.
- Regional variability and MECP capacity influence outcomes.
- Tier 2 pre-consultation is mandatory; Tier 3 is not.
- More interaction during the RA process could improve clarity on MECP comments.



Identified QPCO Focus Areas

- Provide education on best-practices for Tier 2 pre-consultation meetings and engaging in communication prior to submitting Tier 3 PSFs.
- Provide examples or templates for a strong RA approach appendix that targets meaningful MECP feedback.
- Support consistent messaging to QPs on when and how to engage MECP effectively, especially for PFAS and new science sites.

Identified MECP Focus Areas

- Additional clarification on CSM requirements would support stronger, more consistent PSF submissions.
- Guidance on appendices to the PSF to help maximize the benefits of this required step, enabling timely feedback on critical approaches for the RA.

Handout 6 — PFAS: Managing Evolving Science and Policy

Session Description

PFAS assessments are challenged by evolving science and changing regulatory expectations. Many sites have multiple PFAS, some lacking TRVs, and guidance may shift mid-project. This discussion will focus on sharing practical PFAS RA experience, identifying key challenges, and highlighting gaps and opportunities to improve clarity in PFAS assessment under Ontario frameworks.

Discussion Summary

The discussion highlighted significant uncertainty and inconsistency in conducting PFAS risk assessments (RAs) under O. Reg. 153/04, driven largely by evolving science and a lack of clear regulatory expectations. Participants were at varying stages of PFAS RAs, with some completed outside the regulation or for federal clients, some involving the MECP. Participants described difficulty navigating evolving science, TRVs, sampling expectations, and background concentrations.

A central theme was that there are more questions than answers including which approaches are most defensible, how different District Engineers' expectations vary, and how to manage off-site PFAS migration when the site is not the source. Participants also expressed concern about how to address changing toxicological reference values (TRVs) over long project timelines.

Key Discussion Points and Takeaways:

- PFAS science and expectations are evolving. Uncertainties include:
 - Questions on how do you know what TRVs to rely on?
 - Uncertainties in the fate and transport of PFAS impact exposure pathway assessments in RAs, especially given most current models are not effective with PFAS
- Uncertainty in site characterization requirements is the largest issue impacting PFAS RAs under O. Reg. 153/04. Uncertainties include:
 - What is expected in a CSM?
 - What sources do we have to investigate in order to identify PFAS as a COPC and therefore have to analyze for it?
 - Understanding background levels for PFAS given the ubiquitous nature; how can this be addressed within the RA without having to do a “background” assessment as outlined in the regulation?
 - How can you bring common sense into the PFAS evaluation?
- QP consultation with the MECP is essential throughout the RA process, including with the District Engineer.



Identified QPCO Focus Areas

- Promote best practices regarding consultation, report clarity and expectations
- Create PFAS-specific RA guidance for site characterization and risk assessment
- Provide guidance on background assessment and sampling scope

Identified MECP Focus Areas

- Provide clear expectations with respect to site characterization, background assessment, off-site migration, CSM requirements, TRVs and acceptable approaches for parameters without TRVs
- Guidance on acceptable TRVs and managing change