

Report To: Halton-Hamilton Source Protection Committee
Report No.: SPC-23-09-04
From: Martin Keller, Senior Manager, Watershed Planning and Source Protection, mkeller@hrca.on.ca
Date: September 26, 2023
Subject: Draft Policy Package – Dense Non-Aqueous Phase Liquid (DNAPL)

Recommendation

THAT the Halton-Hamilton Source Protection Committee receives for information the staff report SPC-23-09-04 Draft Policy Package – Dense Non-Aqueous Phase Liquid (DNAPL)

Executive Summary

Staff are continuing to analyze the implications of the updated technical framework and revised 2021 Technical Rules under the *Clean Water Act, 2006*, including revised circumstances for identifying significant drinking water threats in the Halton-Hamilton Source Protection Region (HHSPR). Draft policies for the handling and storage of DNAPL were discussed at the Municipal Working Group meeting on September 13, 2023 and are presented to the Source Protection Committee in this report for discussion and feedback.

Report

Background

In December 2021, the Ministry of the Environment, Conservation and Parks (MECP) revised the Technical Rules under the *Clean Water Act, 2006*. The rules are available at: <https://www.ontario.ca/page/2021-technical-rules-under-clean-water-act>

The recently submitted and approved comprehensive HHSPR updates under Section 36 of the *Clean Water Act, 2006* were undertaken following the 2017/2018 Technical Rules. The 2021 Technical Rules will apply to subsequent Assessment Report and Source Protection Plan updates at HHSPR.

Policy Development

Staff developed and presented draft policy text for the handling and storage of fuel to municipal staff and Risk Management Officials (RMO) at the September 13, 2023 Municipal Working Group meeting. Municipal staff and Risk Management Officials (RMO) are in support of the proposed draft policy text. Further changes may be made based on feedback from the Source Protection Committee.

The 2021 Directors Technical Rules, with respect to handling and storage of DNAPLs, saw limited change. A list of activities (List 1 section 9) where DNAPLs are likely used was added to the Glossary of Terms in the Table of drinking Water Threats.

The intent of the policies is to mitigate the risk associated with DNAPLs where the handling and storage is or would be a significant drinking water threat. Staff propose that activities provided in List 1 also be subject to a RMP.

Appendix A of this report provides detail of proposed policy changes and includes List 1 of activities likely associated with dense non-aqueous phase liquids.

Next Steps

Following feedback from Source Protection Committee members, any further policy revisions will be brought forward for discussion to the next Municipal Working Group and future SPC meetings, as applicable.

Signed & respectfully submitted:



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Senior Manager, Watershed Planning and Source Protection



Mardi Bergen
Source Water Information Coordinator, Watershed Planning and Source Protection

2021 Technical Rule Changes – DNPALs

Handling and Storage of DNPALs

Intent – To mitigate and monitor the handling and storage of dense non-aqueous phase liquids where the existing and future handling and storage would be considered a significant drinking water threat.

Tool

- Risk Management Plan to manage the existing and future storage and handling of dense non-aqueous phase liquids and/or the activities included in List 1, applicable to the circumstances related to the prescribed threat.
- Land Use Planning – municipalities request the disclosure of potential activity occurrence.

Dense Non-Aqueous Phase Liquids

Activity	Existing/Future	Vulnerable Area	Significant Threat VSA	Threshold	Intent	Tool Options	Applicable to HHSPR	Notes
Engagement of Activity	Existing/ Future	WHPA-E WHPA	9-10 2-10	Storage Above Grade, Partially Below Grade, Below Grade	Manage	RMP E&O Land Use Planning	All HHSPR WHPAs (excluding Carlisle WHPA-E v 8.1)	

Current DNAPLs Policies

Threat	Education & Outreach	Incentives	Prescribed Instrument	Land Use Planning	Prohibited Activities	Restricted Land Uses	Risk Management Plans	Other
Handling & Storage of DNAPLs				T-53-C a			T-44-C	

Policy Comparison Overview

Handling and Storage of Fuel

Tool	Current Policies (2022)	Current Policy Number	Proposed Policies	New Policy Number
Risk Management Plan (S.58)	Risk management plans with the persons undertaking or proposing to undertake the handling and storage of a dense non-aqueous phase liquid	T-44-C	Risk management plans with the persons undertaking or proposing to undertake the handling and storage of a dense non-aqueous phase liquid. NEW – or the activity is included on List 1. (Defined in the plan)	T-44-C
Land Use Planning	All property owners/operators must disclose any future handling and storage of DNAPLs	T-53-C	No policy changes proposed	T-53-C

Policy ID	T-44-C
Threat	Handling and storage of dense non-aqueous phase liquids
Policy Tool	Risk management plan
Policy Implementer	Risk Management Official
Policy	<p>a. The handling and storage of dense non-aqueous phase liquids is designated for the purpose of Section 58 of the CWA and a Risk Management Plan Shall be required where the following applies:</p> <ol style="list-style-type: none"> 1. Where the handling and storage of dense non-aqueous phase liquids is or would be significant drinking water threats 2. The engagement of an activity that may include, but is not limited to, those provided in List 1 of Section 9 of the Glossary of Terms in the Table of Drinking Water Threats. <p>b. the risk management official shall screen all building permit and <i>Planning Act</i> applications in accordance with policy G-2 within these vulnerable areas.</p> <p>c. the risk management official shall document in their annual report, in accordance with Section 65 of Ontario Regulation 287/07, action taken regarding risk management plans for the handling and storage of a dense non-aqueous phase liquid and submit this report to the Source Protection Authority by February 1 of each year.</p>
Legal Effect	<p>Part a - Must conform with - legally binding. List I (Appendix C – Compliance Lists)</p> <p>Part b - Must conform with - legally binding. List H (Appendix C - Compliance Lists)</p> <p>(Part c is a monitoring policy)</p>
Where Policy Applies	<p>See Figures 2 to 11.</p> <p>WHPA-A, B, C (all scores)</p>
When Policy Applies	Existing and future

Policy ID	T-53-C
Threat	Multiple
Policy Tool	Land use planning
Policy Implementer	Municipal planning authorities
Policy	<p>To facilitate the effective implementation of policies for significant drinking water threats and assist in municipal decision-making,</p> <ol style="list-style-type: none"> a. the municipal planning authorities are requested to require proponents to disclose whether any of the following activities are expected to occur on the property where they would be significant drinking water threats, proposed storage location, where applicable, as well as the substances utilized or stored and their volume: <ol style="list-style-type: none"> 1. the establishment, operation or maintenance of a system that collects, stores, transmits, treats, or disposes of sewage. 2. the application or storage of agricultural source material 3. the application or handling and storage of commercial fertilizer. 4. the application or handling and storage of pesticide. 5. the application or handling and storage of road salt. 6. the storage of snow 7. the handling and storage of fuel 8. the handling and storage of a dense non-aqueous phase liquid 9. the handling and storage of an organic solvent 10. the use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard 11. the establishment and operation of a liquid hydrocarbon pipeline. b. the City of Hamilton, the Region of Halton, and the County of Wellington are requested to require a full disclosure report as part of a complete application under the <i>Planning Act</i>. c. the municipal planning authority shall report to the Source Protection Authority by February 1 of each year on actions taken to amend municipal documents/processes to require disclosure of threat activities and the number of disclosure reports that were received in the previous year.

Legal Effect	Parts a and b Must conform with - legally binding. List A (Appendix C - Compliance Lists) (Part d is a monitoring policy)
Where Policy Applies	See Figures 2 to 11.
When Policy Applies	Future

List 1 of Section 9 of the Glossary of Terms in the Table of Drinking Water Threats

Adhesives and resins manufacturing and processing
Airstrips and hangars operations
Asphalt and bitumen manufacturing
Boat manufacturing
Coal gasification and coal tar manufacturing and processing
Commercial autobody shops (including automotive and other motor vehicles)
Commercial port activities, including operation and maintenance of wharves and docks
Cosmetics manufacturing and processing
Dye manufacturing and processing
Electroplating
Electronic, computer, photographic and printing equipment manufacturing
Garages (including automotive and other motor vehicles) and maintenance and repair of railcars, marine vehicles and aviation vehicles
Glass manufacturing and production
Iron and steel manufacturing and production
Metal fabrication
Metal treatment, coating, plating and finishing
Operation of dry-cleaning equipment (where chemicals are used)
Paints manufacturing and processing
Pesticides (including herbicides, fungicides and anti-fouling agents) manufacturing and processing
Pharmaceutical manufacturing and processing
Plastics (including fibreglass) manufacturing and processing
Pulp, paper and paperboard manufacturing and processing
Rail yards, tracks and spurs
Rubber manufacturing and processing
Solvent manufacturing and processing
Vehicles and associated parts manufacturing
Tanneries
Textile manufacturing and processing
Wood treating and preservative facility