

Regulatory Requirements for Closing Environmentally Impacted Sites in Saskatchewan

SustainTech 2026 Regulatory Session

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Ministry of Environment

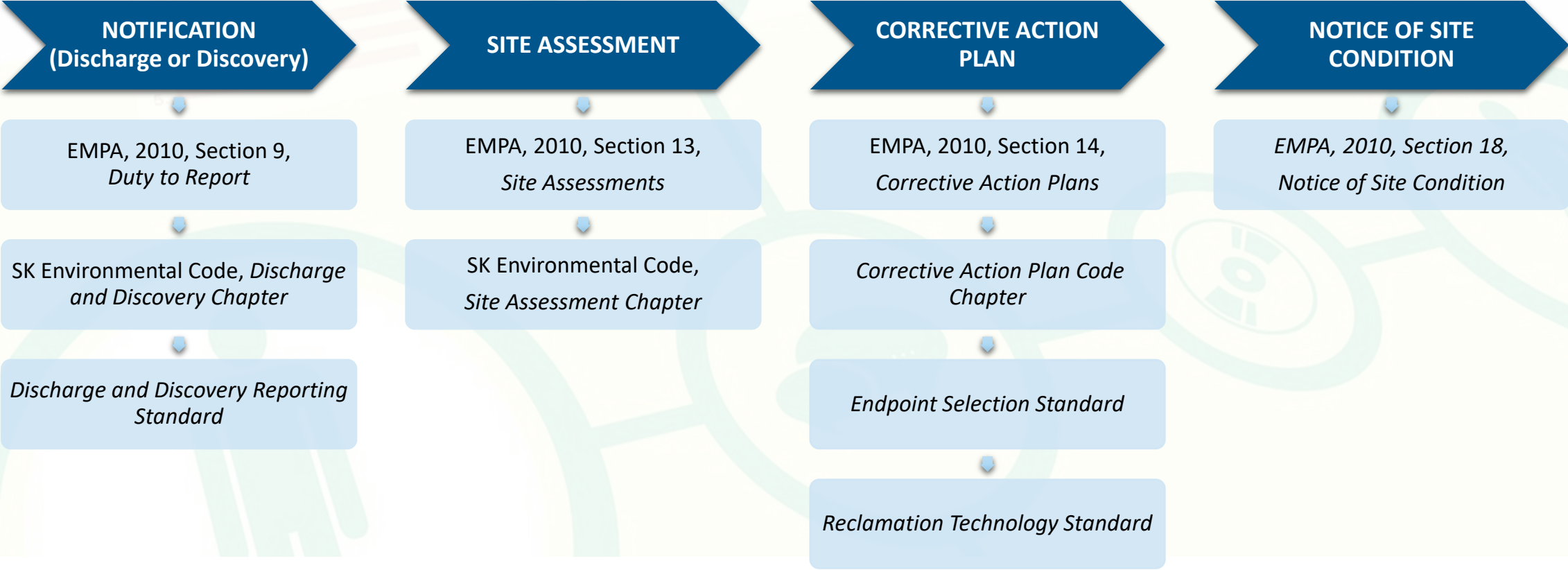
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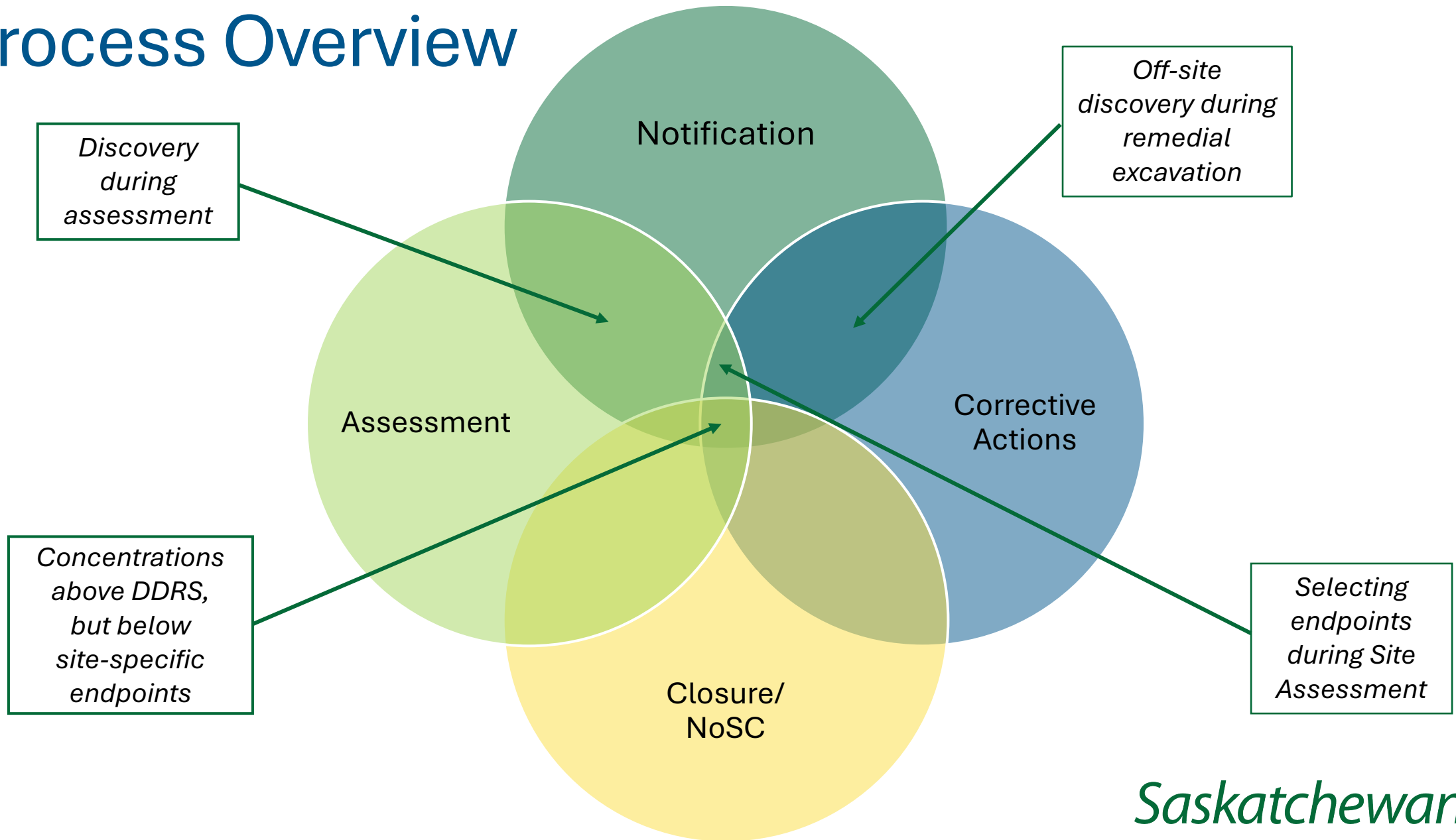
Overview

- Regulatory framework
- Corrective action planning under the Code
- Notices of Site Condition: requirements & documentation
- Off-site impacts & affected-party consent
- Case study: Pathway to Closure

Results Based Regulations and the Saskatchewan Environmental Code



Process Overview



Self-Directed Process



Most common process of addressing an impacted site



Timeline to progress is determined by RP

Directed Process

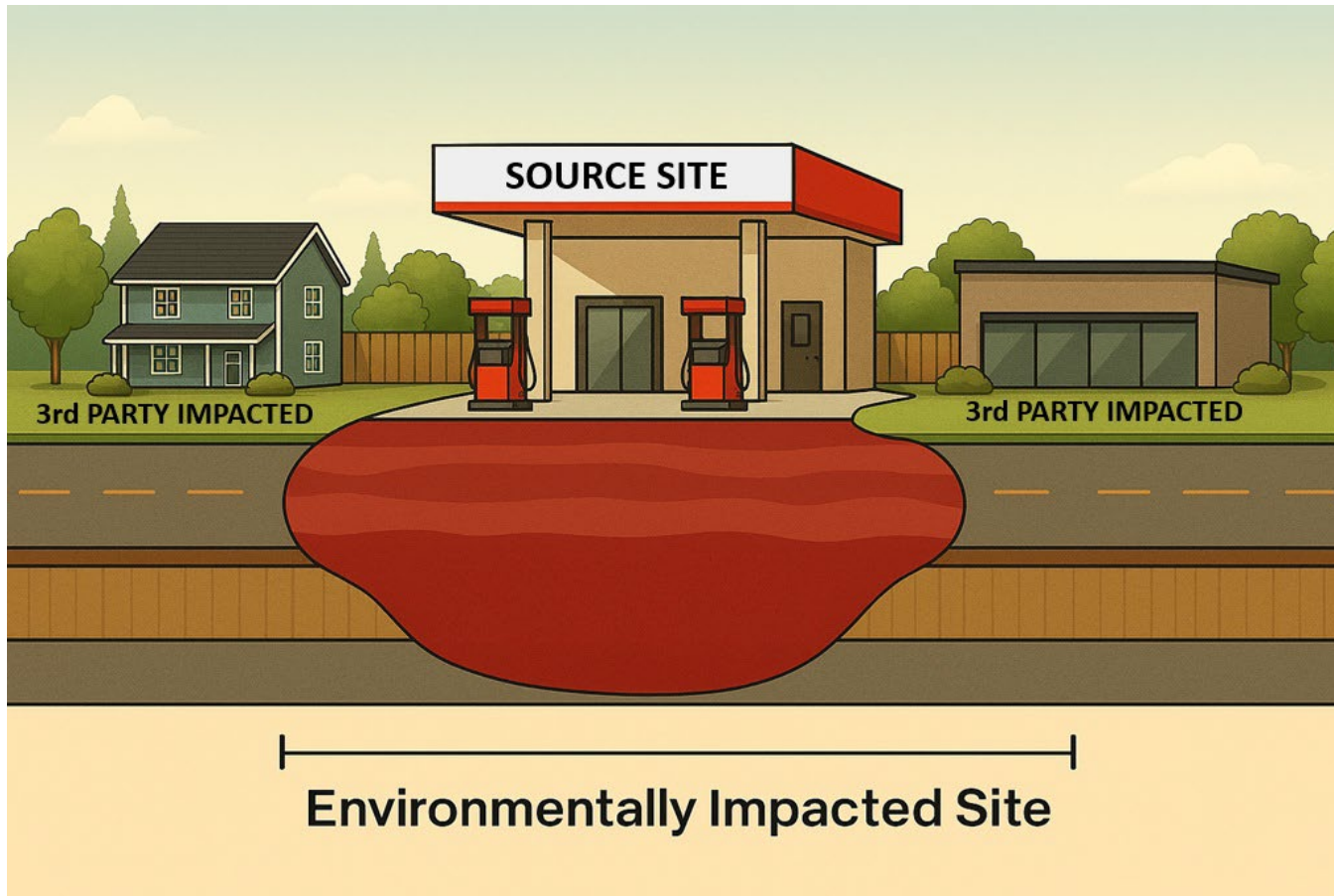


High risk sites



Timeline to progress is set by ministry

What is an Environmentally Impacted Site?



EMPA, 2010 - Section 2(1)(l) -
environmentally impacted site is an area of land or water that contains a substance that may cause or is causing an adverse effect

Alternative Solution

- Tier 1 or 2 SEQG Endpoints
- Tier 3 Endpoints
- Human Health Risk Assessment
- Ecological Risk Assessment
- Guideline Re-calculation
- Acceptable Solution Reclamation Technology:
 - Source removal by excavation/disposal
- Alternative Solution Reclamation Technology:
 - Monitored Natural Attenuation, bio-remediation, others
- Defined timeline
- Ministry review before Notification number provided
- Prior approval only required under directed process

Acceptable Solution

- Tier 1 or 2 SEQG Endpoints only
- Acceptable Solution Reclamation Technology only:
 - Source removal by excavation/disposal
- Defined timeline
- Notification number provided automatically with no ministry review
- Prior approval only required under directed process

Corrective Action Planning

Risk-Management with Future Reclamation (RMFR)

- No defined timeline
- Ministry review before Notification number provided
- Financial assurance requirements

CAP = REC TECH + END POINTS + TIMELINE

RMFR
CAP = REC TECH + END POINTS + ~~TIMELINE~~
FA

Endpoint Selection

- Endpoint Selection Standard provides general requirements
- Consider source, pathways, and receptors
- Saskatchewan Environmental Quality Guidelines (SEQG) – Primary data source
- CCME, Alberta Tier 1 Soil and GW Remediation Guidelines, or others may be used



Showing 1 to 10 of 560 entries (filtered from 25,051 total entries)

Previous 1 2 3 4 5 ...

Show 10 entries Search: benzene

Chemical	Land Use	Media	SubMedia	Parameter	Value	Units of Measure
Benzene	Agricultural	Groundwater	Coarse	Aquatic Life (Groundwater)	0.074	mg/L
Benzene	Agricultural	Groundwater	Coarse	Eco Soil Contact (Groundwater)	61	mg/L
Benzene	Agricultural	Groundwater	Coarse	Inhalation (Groundwater)	0.03	mg/L
Benzene	Agricultural	Groundwater	Coarse	Irrigation (Groundwater)	NV	mg/L
Benzene	Agricultural	Groundwater	Coarse	Livestock (Groundwater)	0.088	mg/L
Benzene	Agricultural	Groundwater	Coarse	Management Limit (Groundwater)	900	mg/L
Benzene	Agricultural	Groundwater	Coarse	Potable (Groundwater)	0.005	mg/L
Benzene	Agricultural	Groundwater	Coarse	Tier 1 (Groundwater)	0.005	mg/L
Benzene	Agricultural	Groundwater	Coarse	Wildlife Watering (Groundwater)	0.14	mg/L
Benzene	Agricultural	Groundwater	Fine	Aquatic Life (Groundwater)	3.6	mg/L

Showing 1 to 10 of 560 entries (filtered from 25,051 total entries)

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Managing Off-site Impacts

Impacts Beyond Property Boundaries

Substances of concern can potentially migrate beyond the original source site, affecting nearby land and sensitive receptors.

Regulatory Requirements in Saskatchewan

Ministry of Environment requires the person(s) responsible to delineate (find the extent) of these impacts and assess all off-site impacts.

Written Consent

Need written consent from each landowner for all proposed corrective actions on off-site impacted properties that they do not own.

Stakeholder Communication and Compliance

Qualified persons (consultants) can assist the person(s) responsible to communicate risks to affected landowners. Ministry can provide approvals of CAPs, contingent upon landowner consent.



Qualified Person Requirements

- A Qualified Person can have two roles:
 - Provide opinions/certify this opinion
 - Physically do the work
- At NoSC, QP sign off is required to certify:
 - RBO's have been met (Alternative solution)
 - Endpoints selected
 - QA/QC for sampling and analytical procedures
 - Laboratory analysis

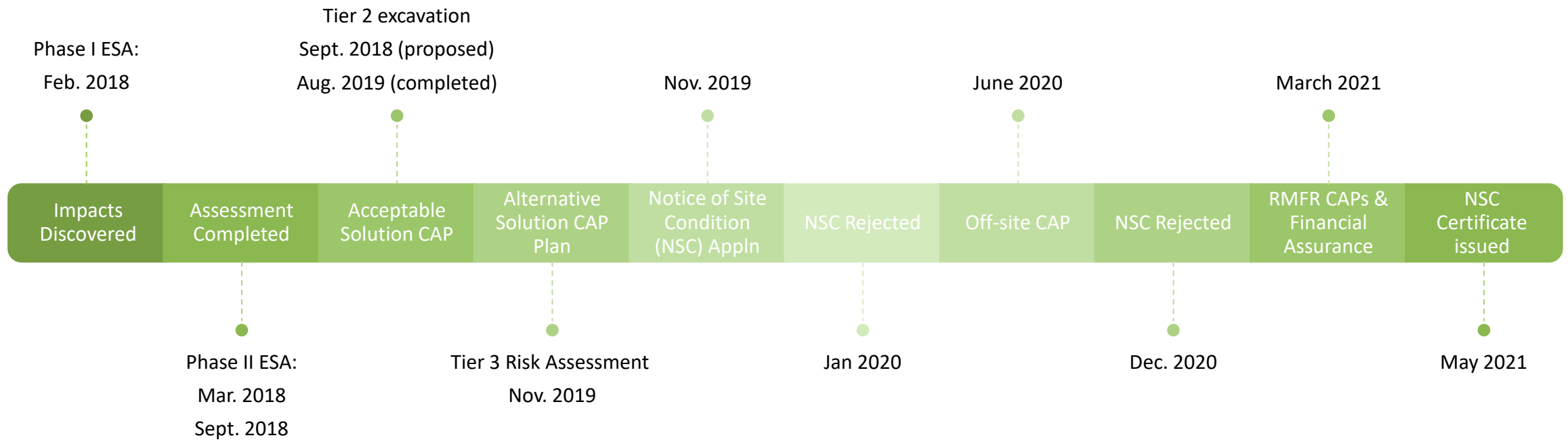


Case Site: Background

- 1967 to 1986: Operated as a gas station
- 1997: Underground waste oil tank decommissioned
- 1998: Purchased as a vehicle dealership
- 2017: Main on-site building extended
- 2018: Petroleum hydrocarbon (PHC) impacts discovered
- 2019: Ministry notified of PHC impacts



Summary Timeline

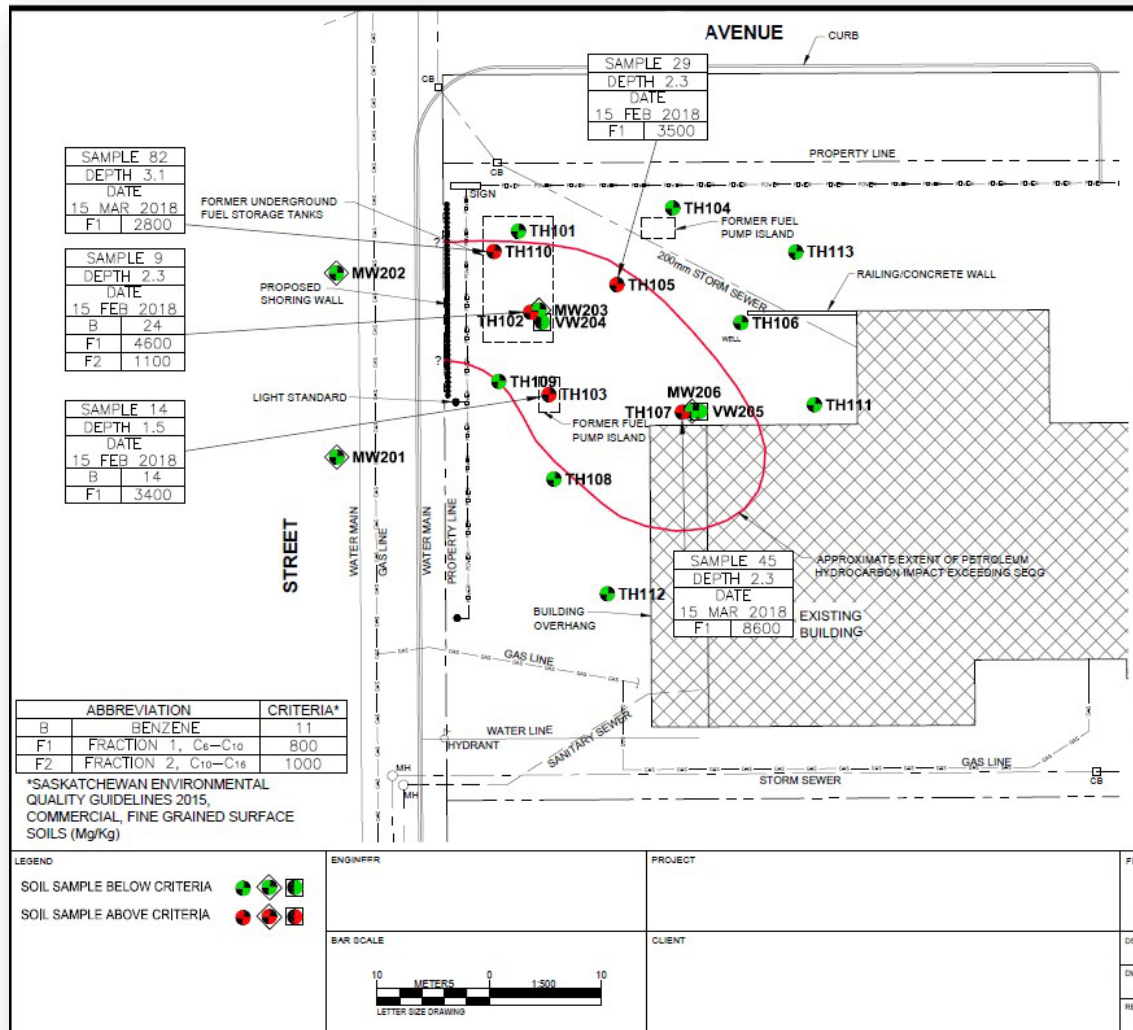


Case Study: Assessment of Impacts

- Acceptable Solution ESAs
- PHC impacts exceeding the Saskatchewan Environmental Quality Guidelines (SEQG), Tier 2, fine-grained soil, commercial land use.
 - Did not initially delineate to Table 2 of the Discharge and Discovery Reporting Standard.
 - Historical impacts remain beneath the on-site building and have potentially migrated off-site.



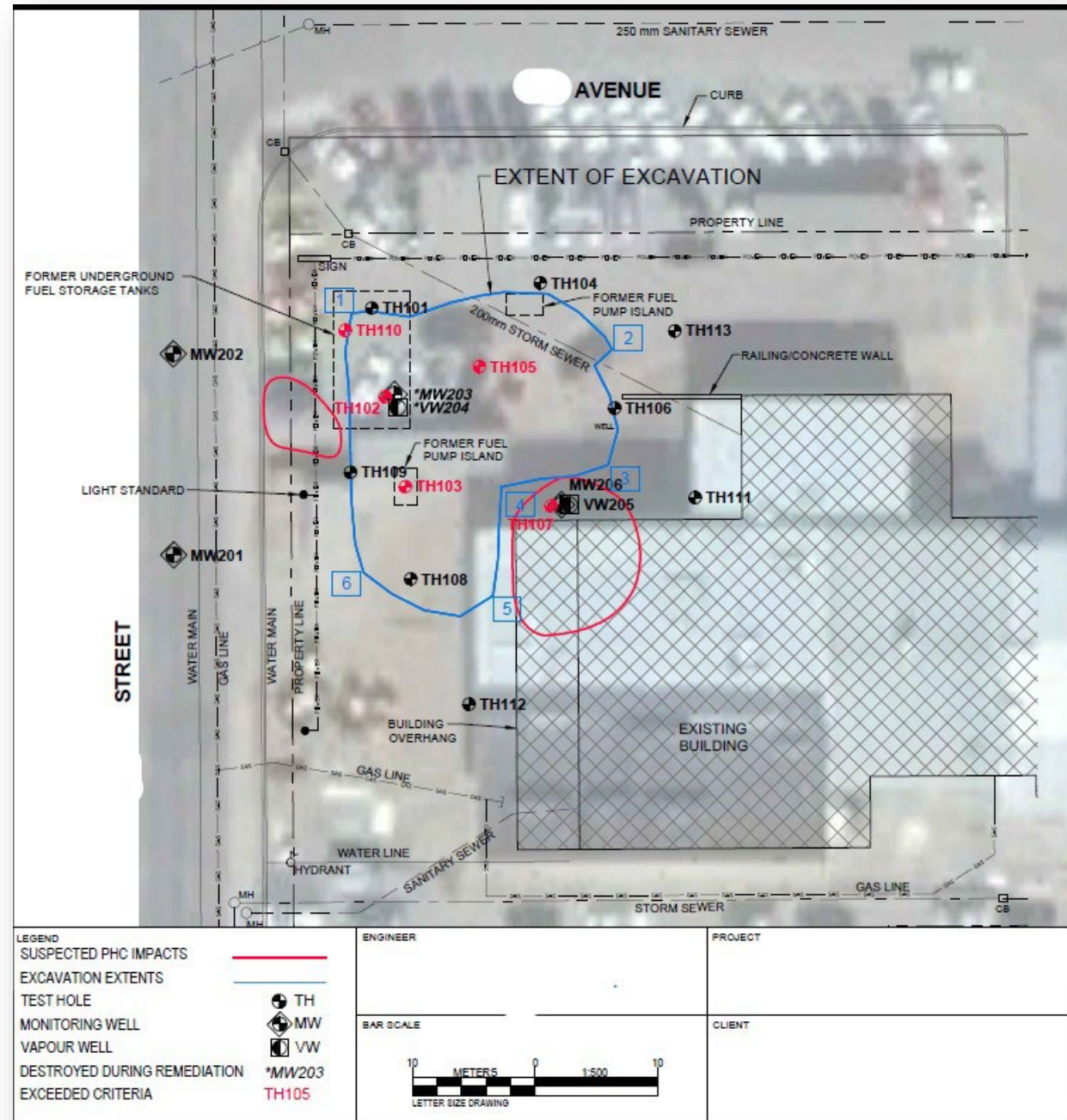
Case Study: Assessment of Impacts



- Alternative Tier 2 delineation criteria proposed, rather than DDRS Table 2
- Tier 2 SEQG Endpoints accepted as alternative delineation concentrations for on-site impacts only.
- Tier 2 SEQG delineation criteria accepted for off-site, with conditions that off-site landowners provide written consent

Case Study: Corrective Actions

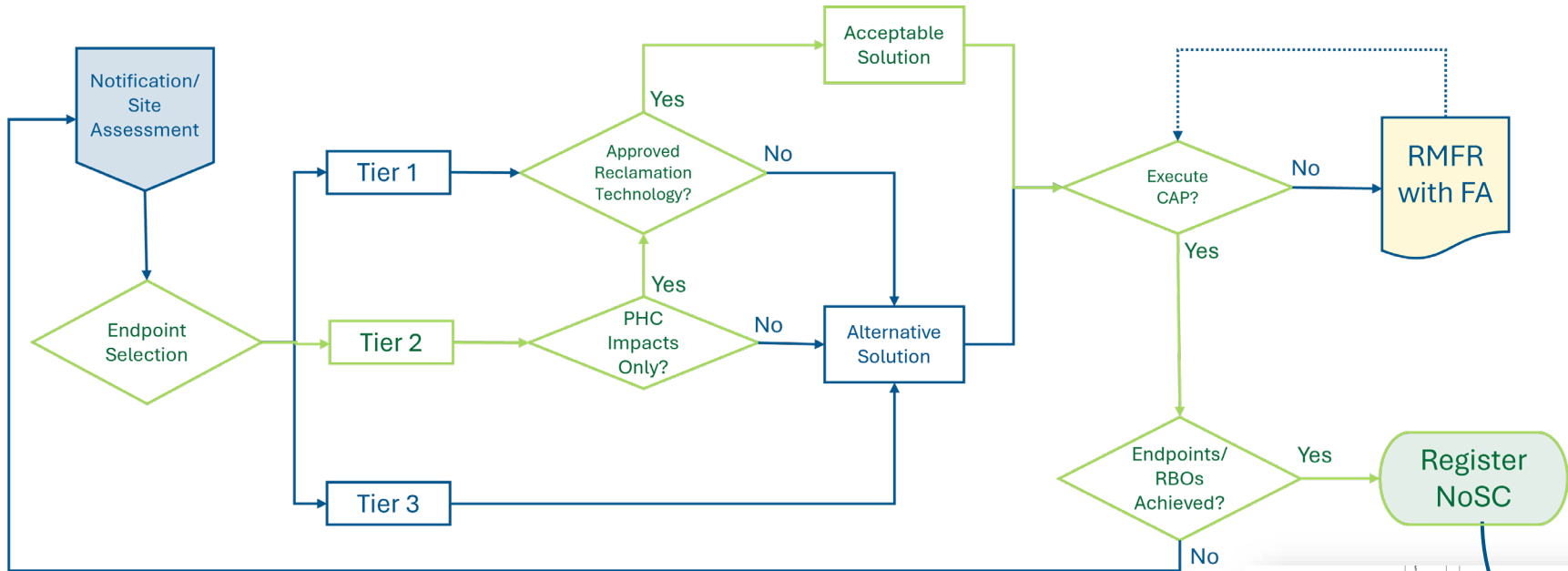
- Following the 2019 acceptable solution CAP (excavation), the QP proposed an alternative solution CAP in the form of a human health and ecological risk assessment (HHERA) for the remaining impacts.
- The CAP was not accepted by the ministry:
 - Adjacent (impacted) landowner not consulted.
 - Management limit exceedances (i.e. risks to trench workers) not risk assessed.
 - Risk assessment based on one round of soil vapour sampling only.
 - Impacts remain un-delineated beneath the building.



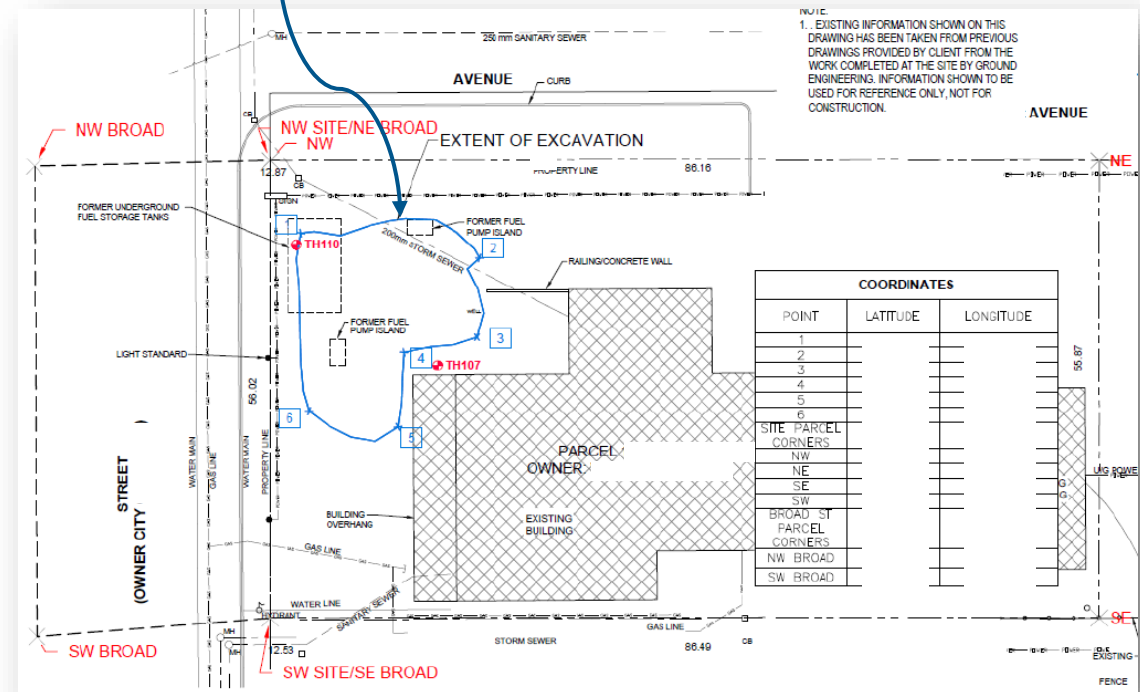
Case Study: Corrective Actions



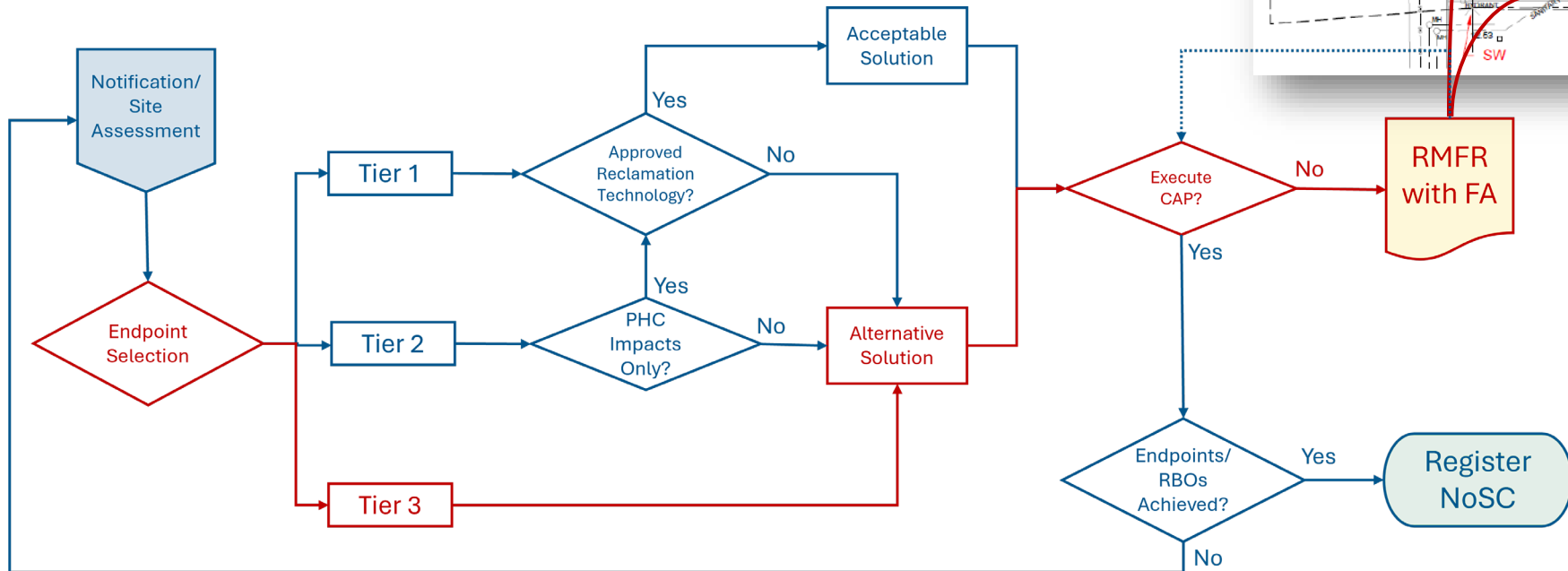
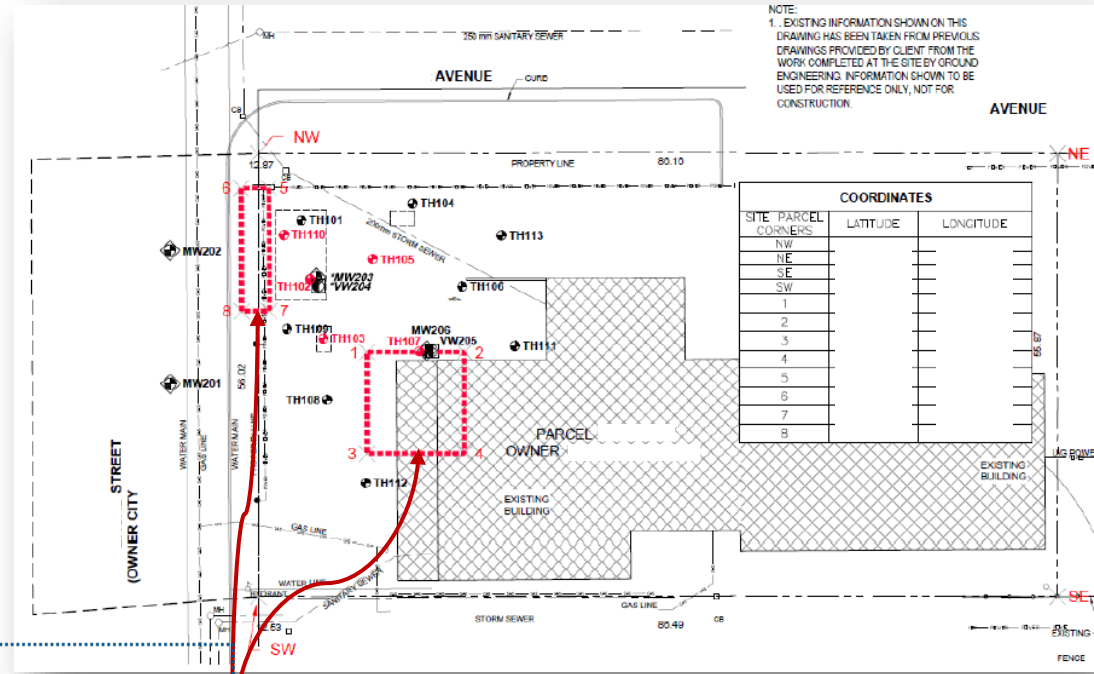
- Following the excavation CAP and the HHRA, a Risk Management with Future Reclamation (RMFR) approach was taken:
 - The QP proposed two, costed and assured, RMFR CAPs; one off-site and one on-site.
 - All potential risks to receptors (current and future) in these RMFR areas are fully assessed, controls are in place and a financial assurance has been set aside to cover future management of these impacts.
 - Written consent from the off-property landowner was provided.



Path to Notice of Site Condition



RMFR for Remaining Impacts



\$9,500 FA off-site
\$29,000 FA on-site



Ministry of Environment

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Table 1: As

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Pursuant to Section 18(1) of the Environmental Protection Act, the Minister of Environment is hereby certifying that the site is environmentally impacted.

- The corrective action plan in Document 1, pursuant to the Environmental Protection Act, includes:
 - BTEX, PCE, and other volatile organic compounds (VOCs) in groundwater, and the potential for these compounds to migrate to surface water bodies.
 - Benzenes and other semi-volatile organic compounds (SVOCs) in groundwater, and the potential for these compounds to migrate to surface water bodies.
- Whereas the existing environmental controls defined in the Environmental Protection Act include:
 - Soil ingestion controls, including the installation of fences and signage to restrict access to the site.
 - Potable water supply lines and fixtures, including the installation of backflow preventers and regular testing.
 - Ecological controls, including the installation of erosion control measures and revegetation.
 - Freshwater quality monitoring, including the installation of monitoring wells and regular sampling.

And whereas, the Minister of Environment is hereby certifying that the site is environmentally impacted.

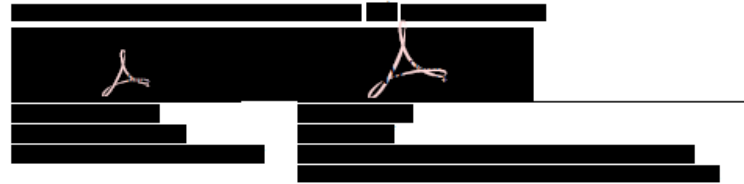
- This notice of site condition is hereby issued pursuant to the Environmental Protection Act.
- Use of the property shall be restricted to the use described in the notice of site condition.
- This notice of site condition is hereby issued pursuant to the Environmental Protection Act.
- Full disclosure of the site condition and registration of the site condition is required by the owners and occupants of the property.
- Non-compliance with the notice of site condition is an offence under the Environmental Protection Act.



NOTICE OF SITE CONDITION
CAP Notification No. [REDACTED]
Page 3 of 4

the registry and necessitate further action pursuant to EMPA, 2010 and the Saskatchewan Environmental Code.

- All administrative, engineered, and/or physical controls mentioned in this notice of site condition shall be maintained by the owner and occupant of the property.
- Where any subsequent environmental investigation disproves or contradicts the information provided in the Associated Documents, the minister is then authorized to strike this notice of site condition from the registry.



Cc: [REDACTED]
Encl: Figure 1 (Fig. 2, Document 1)

Notice of Site Condition Certificate



Liabilities in Changing Land-Use



Impact of Land-Use Changes

- Changing land use changes risk (residential < commercial < industrial)
- Compatible-use legislation in EMPA, 2010 (anti-Lynnview Ridge clause)



Role of Environmental Consultants/Qualified Persons

- Qualified persons assess risks and guide corrective action planning based on new land-use scenarios
- Previously accepted CAP may need to be revised.



Regulatory Engagement Importance

- Prior-approval may be obtained from ministry, but not necessary under self-directed process

Transferring Responsibility for an Impacted Site



- S. 19 of EMPA, 2010 - 'Transfer of responsibility for environmentally impacted sites
- Statutory transfers vs civil transfers (land sale agreement)
- Transferring a CAP and a financial assurance

Path to Closure

...for this presentation

- CAP/Closure/NoSC regulated under EMPA, 2010 and Code
- Acceptable vs. Alternative Solution CAPs can be directed or self-directed
- RMFR is a CAP without a timeline
- NoSC Certificates set the conditions for future land use and occupancy

Questions?

**Visit our Resource Library
on Saskatchewan.ca**



**Contact
General Inquiries Centre
Centre.inquiry@gov.sk.ca**

1-800-567-4224

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