

Highland Drive Landfill

Municipality of Port Hope

September 21, 2021

Mark Galanter, Manager
Highland Drive & Industrial Sites



Highland Drive Landfill (HDLF) Area: Overview

Site Overview



Highland Drive area sites in Port Hope

HDLF Overview

Phased Project Approach

- Original designs - one contract: Highland Drive Landfill | Pine Street North Extension Roadbed | Pine Street North Extension Consolidation Site (PSNE CS)
- Due to complex nature of landfill site - remedial option study initiated to confirm best approach
- PSNE Consolidation Site work advanced ahead of rest of Highland Drive Work - expected completion early 2022
- HDLF design modified based on remedial option study - undergoing review/approval

Estimated Quantities

	LLRW (m ³)	Non-LLRW impacted MSW/overburden (m ³)	Total to be managed (m ³)
HDLF	51,857	133,194	185,050
PSNE Roadbed	7,215	0	7,215
PSNE CS	47,191	7,200	54,391
Total	106,263	140,394	246,657

Pine Street North Extension Consolidation Site



Pine Street North Extension Consolidation Site

Site Access Upgrades



*Cavan Street Entrance
Before Upgrades*



*Cavan Street Entrance
After Upgrades (May 2021)*



Pine Street North Extension Consolidation Site

Remediation Site Preparation

*Contaminated Water
Catchment Pond*



*Stockpile Area
Preparation*



*Storm water Management
Pond Construction*



*Contamination Control
Areas*



*Project Office Area
and Staff Parking*



Pine Street North Extension Consolidation Site

Remediation – First Truck!

27 May 2021



Loading LLRW



Contamination Control



Transport to the LTWMF

Pine Street North Extension Consolidation Site

Remediation – May vs August 2021



May 2021



August 2021

Pine Street North Extension Consolidation Site

Remediation – May vs August 2021



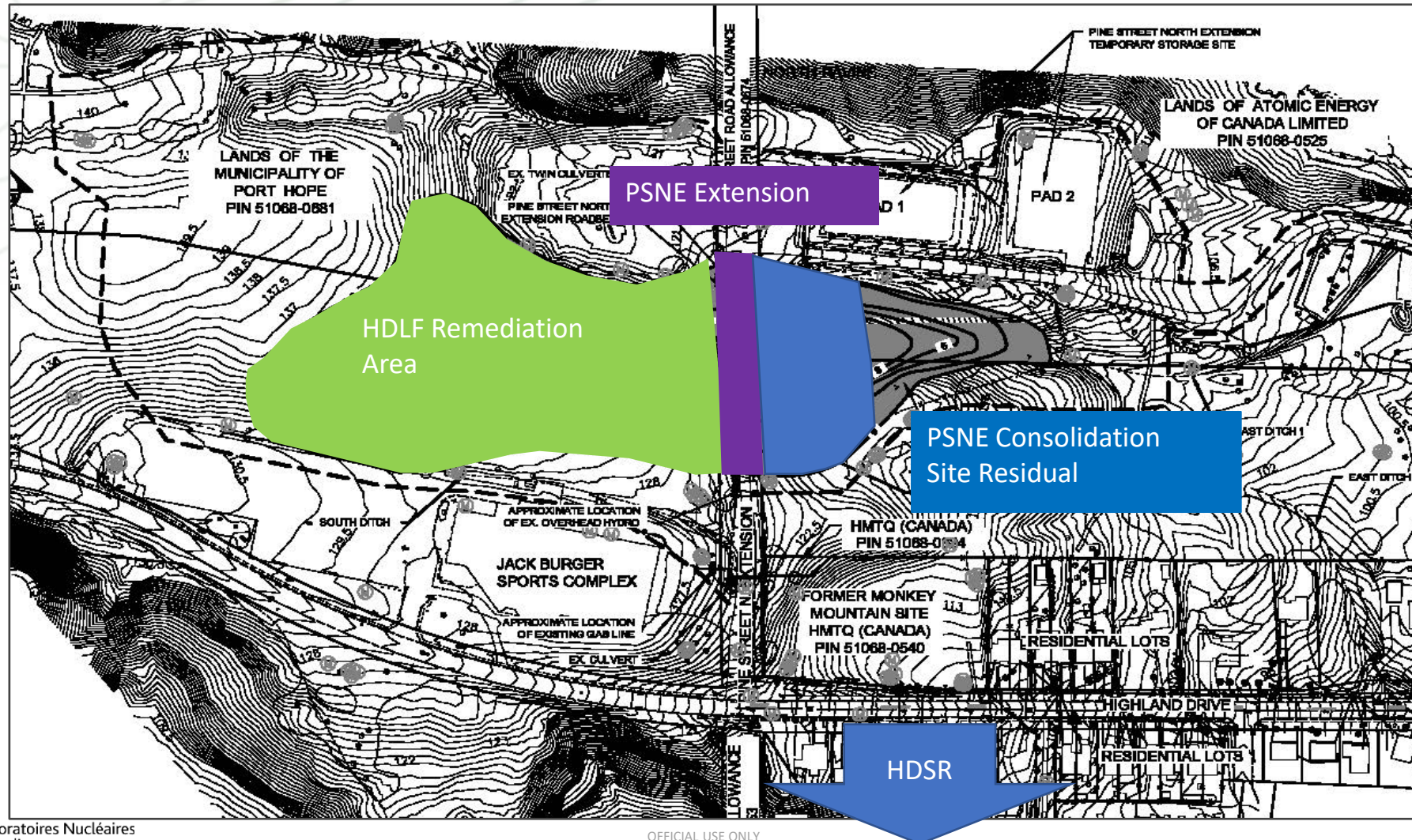
May 2021



August 2021

Highland Drive Landfill

Updated Project Boundaries



Highland Drive Landfill and Pine Street N. Road Bed

Work Completed & Underway

- Cavan Street Entrance upgrade (complete)
- Trailers & Support area by Highland Drive (Complete)
- Decontamination area set-up (Complete)
- PSNE Consolidation Site S LLRW removal underway (May through December 2021)
- ECA Amendment underway (Environmental Compliance Approval) to modify the landfill submitted to MECP in July (12 month process expected)
- CNL has started the contracting process with the goal of having a contractor on board in early 2022



Highland Drive Landfill

Remaining Design & Contractor Considerations

Odour associated with opening a landfill

- Contractor will develop and implement Odour Management Plan
- CNL will retain 3rd party Odour Monitoring Contractor

Water control

- Segregate and manage impacted and unimpacted water
- Water treatment plant

LLRW Removal Verification

- Separate Low-level Radioactive Waste (LLRW) and Municipal Solid Waste (MSW) to return MSW to HDLF
- Bottom of waste versus original (pre-landfill) ground surface



Highland Drive Landfill

Project Approach

Establish Unimpacted and Impacted water storage basins

- Routing unimpacted water around work areas
- Transport to wastewater treatment facility and discharge

Rolling Excavation approach

- Strip off cover layer – as non-LLRW
- Excavate waste material (LLRW and MSW)
- Segregate MSW as encountered for later stages
- Transport LLRW and co-mingled MSW to LTWMMF
- Place non-LLRW MSW back in HDLF

Closure/Restoration

- Grade to drain surface water off HDLF
- Restore clay cover on HDLF (spec: 600 mm of 1×10^{-7} cm/sec clay)
- Re-establish grass cover



HDLF Overview

Project Approach – East to West Profile

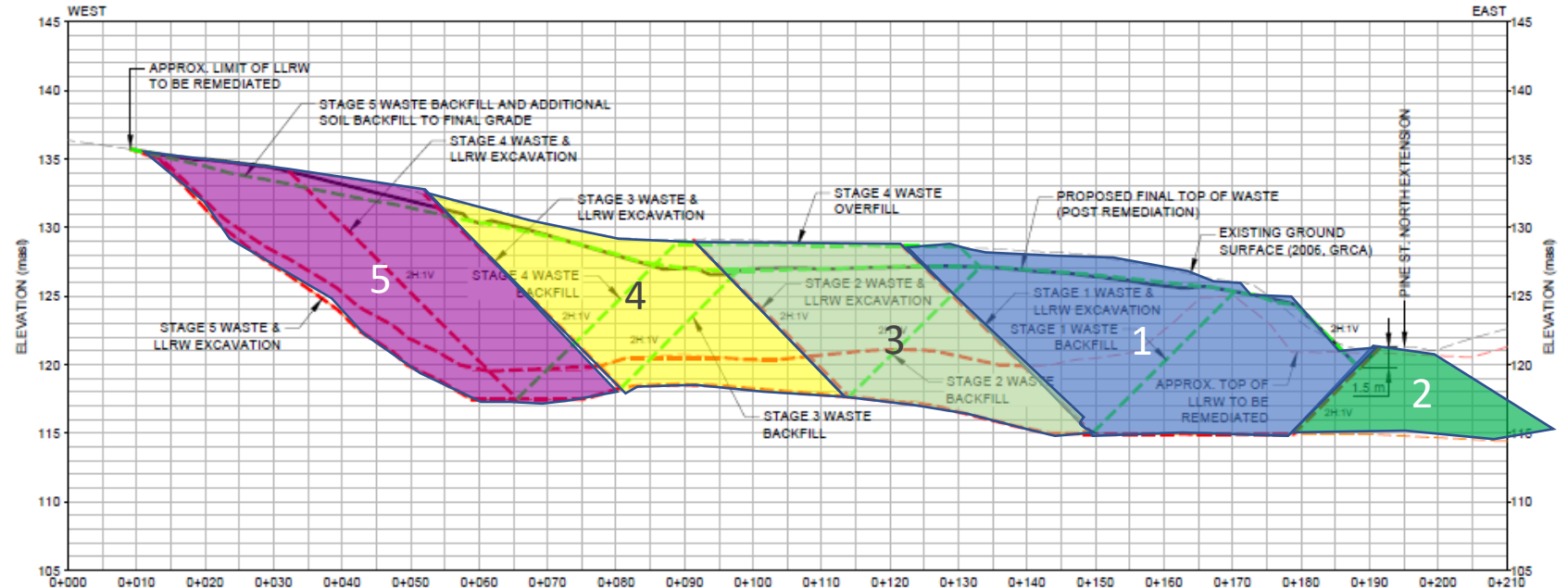
Area 1 - Remove LLRW and MSW – all material to LTWMF **Establish/ maintain dewatering points

Area 2 - PSNE and PSNE CS – all material to LTWMF. RVSOP. Backfill PSNE

Area 3 - Segregate MSW/place into stage 1 area, LLRW to LTWMF

Area 4 - Segregate MSW/place into stage 3 area, LLRW to LTWMF

Area 5 - Segregate MSW/place into stage 4 area, LLRW to LTWMF



HDLF Overview

Schedule



Thank You

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