



Canadian Nuclear Laboratories (CNL) GoCo Transition

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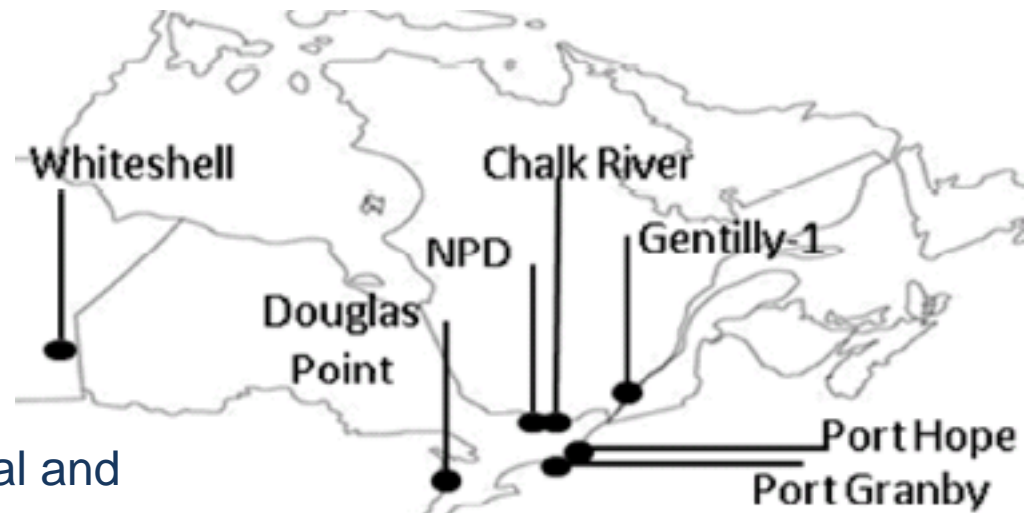
Vice President of Decommissioning & Waste Management

WM2017 Panel 039



Decommissioning & Waste Management Scope

- Decommissioning
- Environmental Remediation
- Management of radiological and hazardous waste
- Clean-up of historical low level waste sites



Purpose: Accelerate reduction of Canada's Nuclear Liability
Prepare Chalk River Site for revitalization



Priorities 2017-2025

Reducing Risks and Liabilities

- Decommission/demolish 122 buildings at Chalk River and 52 at Whiteshell
- Remediation of Soil and Groundwater
- Low-level waste from storage to disposal
 - Near Surface Disposal Facility by 2021*
- Decommission and close sites
 - Whiteshell Laboratories by 2024*
 - Nuclear Power Demonstration (NPD) Reactor by 2020*
- Repatriate fuels and target materials
- Complete clean-up of historic low-level waste
 - Port Hope Project by 2023*
 - Port Granby Project by 2021*



* Major Projects Highlighted in This Presentation



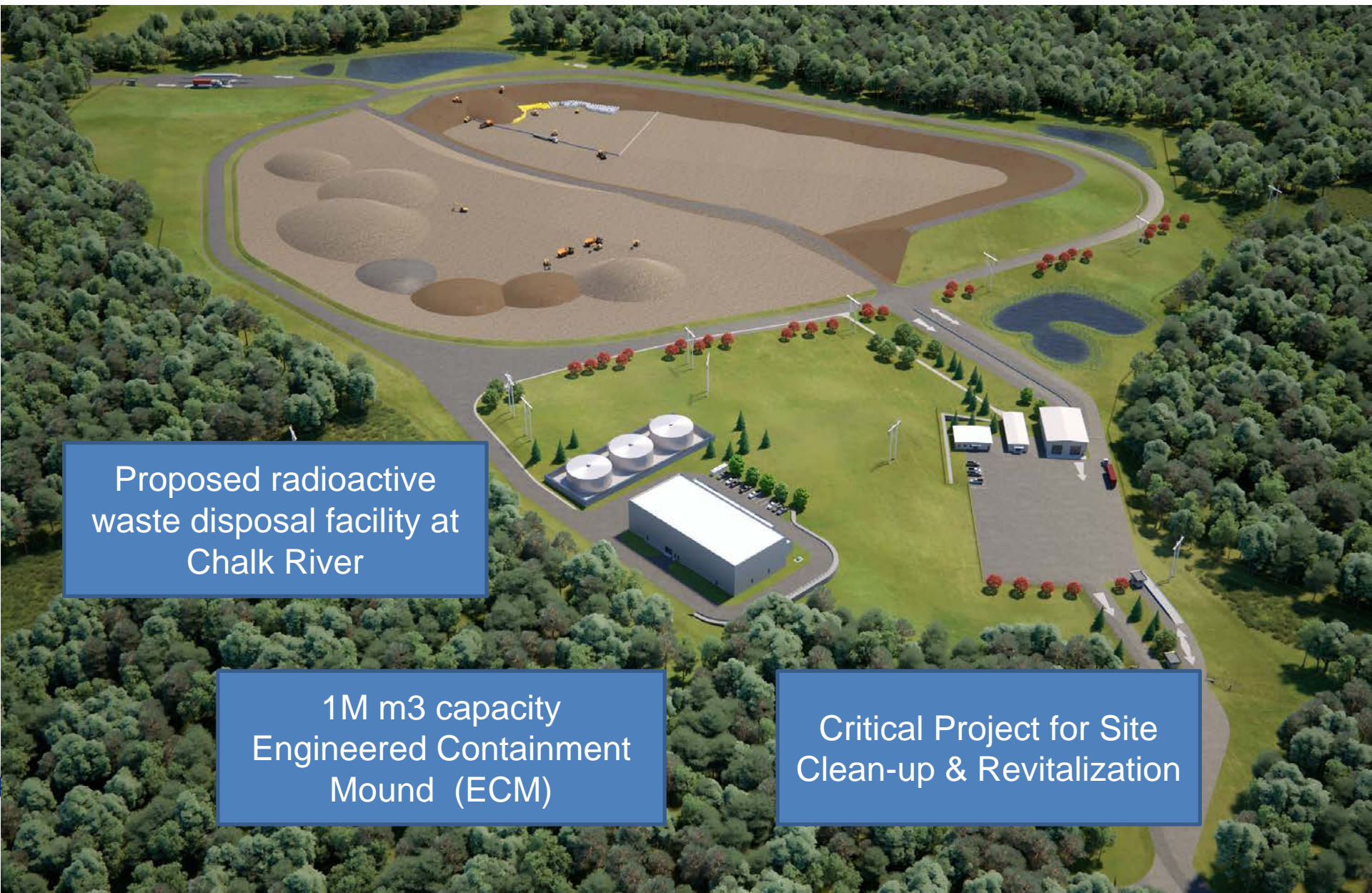
Accomplishments

First 18 months

- Program & Capability Development
- Integrated Waste Strategy
- Three Environmental Assessments in progress
- Waste Management & Disposal Facilities
 - 1 in operation (Port Grandby)
 - 2nd in construction (Port Hope)
 - 3rd design & licensing (Chalk River)
- Structures Demolished
 - 23 at Chalk River
 - 17 at Whiteshell



Near Surface Disposal Facility (NSDF)

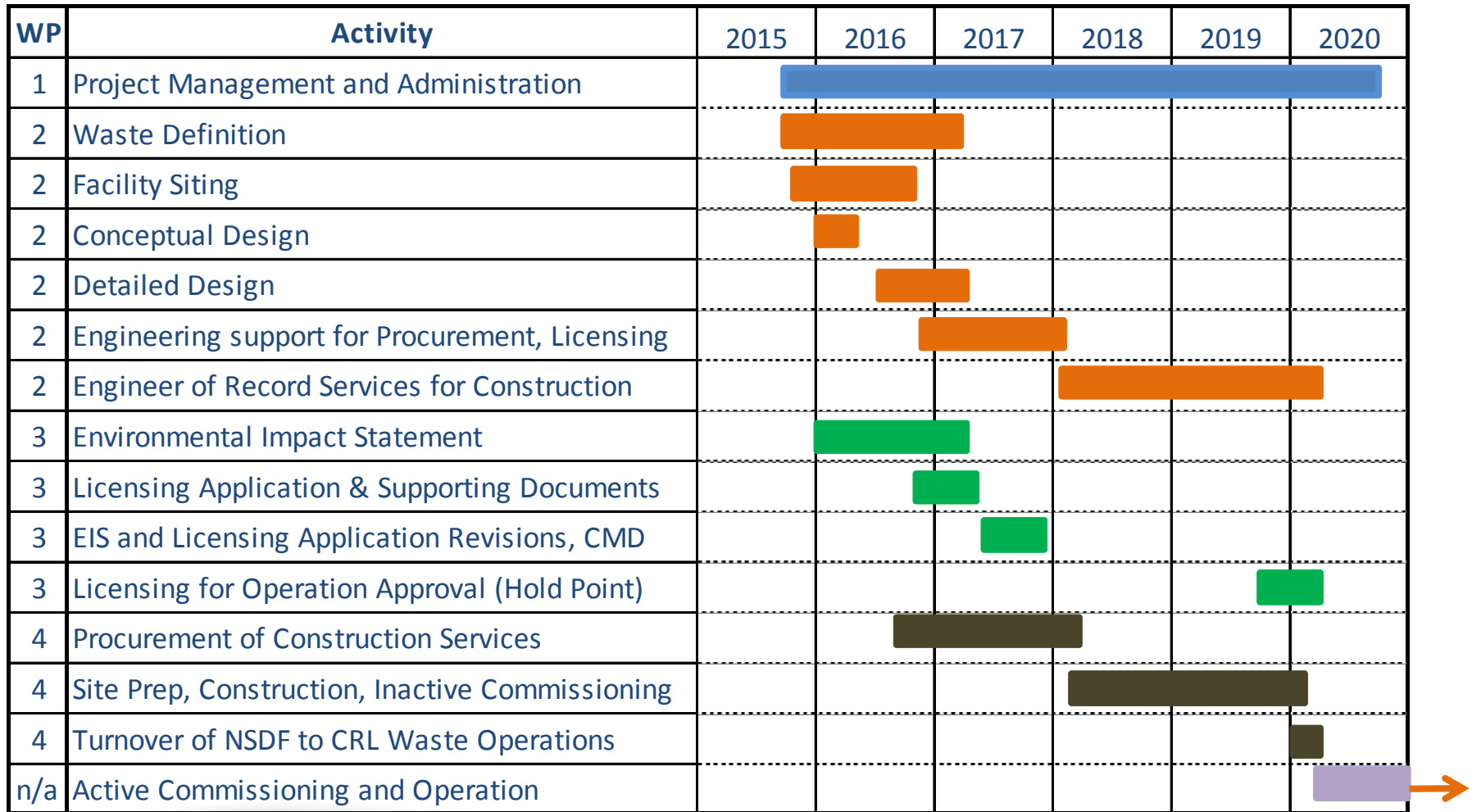


Proposed radioactive
waste disposal facility at
Chalk River

1M m³ capacity
Engineered Containment
Mound (ECM)

Critical Project for Site
Clean-up & Revitalization

NSDF Schedule



Whiteshell Closure Project



Proposed End State for WR-1 Reactor

- Reactor and associated systems grouted in place
- Building demolition
- Construct engineered cover
- Long term care and maintenance



Whiteshell Project Schedule

Activity	2016	2017	2018	2019	2020	2021	2022	2023	2024
Ongoing decommissioning	[Active]								
EA and Licensing Approval for WR-1		[Active]							
WR-1 in-situ decommissioning				[Active]					
Site remediation						[Active]			



Experience

In-situ disposal approach has been used before.



Safe

Safe by design.
Engineered protection.



Environment

Long term monitoring per Regulatory approval.



NPD Closure Project

Proposed End State

- Reactor and associated systems grouted in place
- Above grade structures demolished and used for backfill
- Covered with an engineered barrier
- Long-term care and maintenance
- Chimney Swift habitat protected



NPD Schedule

Activity	2016	2017	2018	2019	2020
Preparation	[Shaded]				
EA and Licensing		[Shaded]			
Decommissioning execution				[Shaded]	

2020 May

- Nuclear Power Demonstration (NPD) site closure followed by institutional control subject to regulatory approval



Historic Waste Program: Port Hope Area Initiative

The cleanup and long-term management of historic low-level radioactive waste in the Port Hope and Clarington municipalities

Port Hope Project

- **Construct:**

- Waste water treatment plant → *Complete*
- Long-term waste management facility → *In progress*

- **Remediate:**

- ~1.2 million m³ of waste from 13 major sites
- ~450 residential properties

- **Transport:**

- Waste to new engineered aboveground mound → 2018 – 2022

- **Administer ongoing programs:**

- Communications/stakeholder relations
- Environmental monitoring
- Property value protection



Historic Waste Program: Port Hope Area Initiative

Port Granby Project (Clarington):

- **Construct:**

- Waste water treatment plant → *complete*
- Long-term waste management facility Cell 1 → *Complete*
- Long-term waste management facility Cell 1 → *In progress*

- **Remediate:**

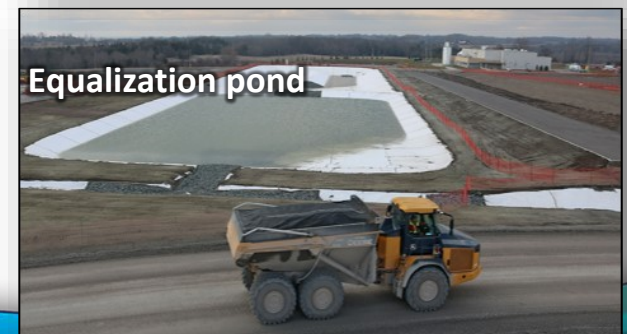
- ~450,000 m³ of waste from Lake Ontario shoreline

- **Transport:**

- Waste to new engineered aboveground mound
→ *2016 - 2020*

- **Administer ongoing programs**

- Communications/stakeholder relations
- Environmental monitoring
- Property value protection



Communications & Engagement

For our local and aboriginal communities:

- Number 1 priority is safety – of the public, our workers and the environment
- Meeting our commitments and obligations with respect to regulatory requirements (Environmental Assessments and CNSC licences)
- With knowledge comes trust and support for the projects
- Committed to working collaboratively with our municipal and regional communities
- Committed to working with aboriginal people

