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## **Supplementary Information**

## **Renseignements supplémentaires**

### **Oral Presentation**

### **Exposé oral**

### **Presentation from Ontario Power Generation**

### **Présentation d'Ontario Power Generation**

In the Matter of the

À l'égard du

**Mid-Term Report on Results of Compliance  
Activities and Performance of Ontario  
Power Generation's Darlington New  
Nuclear Project**

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**Rapport de mi-parcours sur les résultats des  
activités de conformité et le rendement du  
nouveau projet nucléaire de Darlington  
d'Ontario Power Generation**

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Commission Meeting

Réunion de la Commission

December 13, 2018

Le 13 décembre 2018





# Darlington New Nuclear Project

Mid-Term Review of  
Site Preparation Licence

Canadian Nuclear Safety  
Commission Meeting  
December 13<sup>th</sup>, 2018

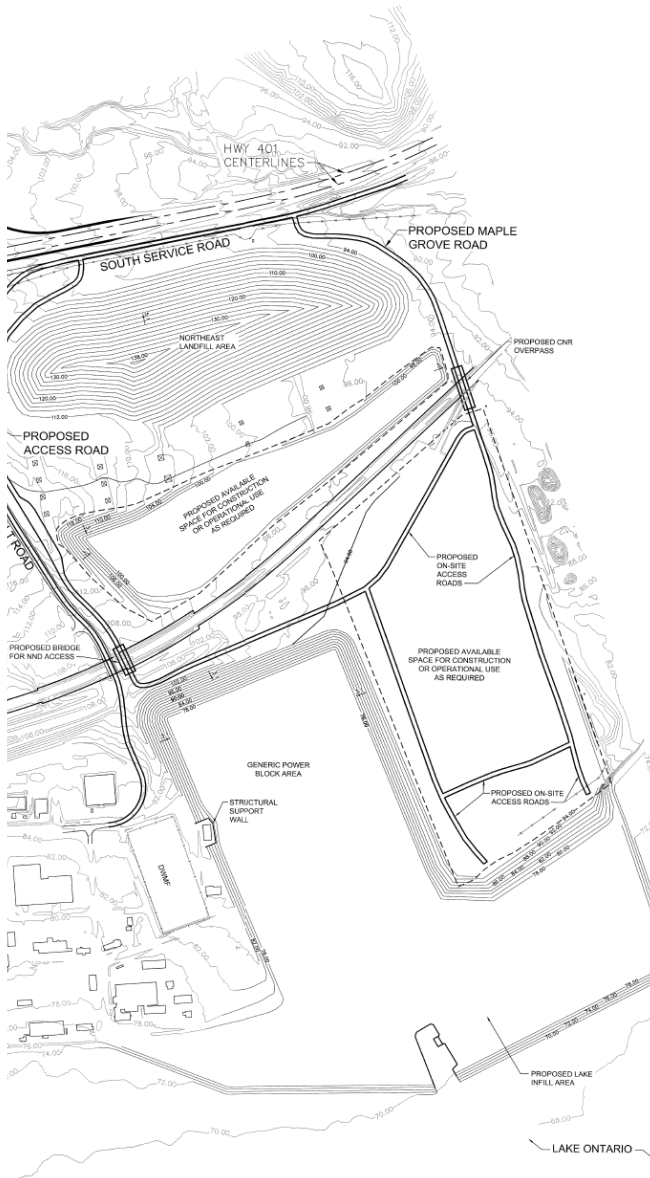


# Opening Remarks

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# Project Overview and Status

- Located in Clarington approximately 70 km east of Toronto
- Granted a site preparation licence for:
  - Up to four nuclear power reactors
  - Overall output of 4800 MWe (maximum)
- Licence is valid for 10 years
- Based on bounding technology-neutral Environmental Assessment
- 2013 – Government of Ontario:
  - Deferred Darlington New Nuclear Project (DNNP)
  - Paused Infrastructure Ontario-led technology selection process
  - Requested OPG maintain site preparation licence

# Project Site



Aerial View of Darlington Site

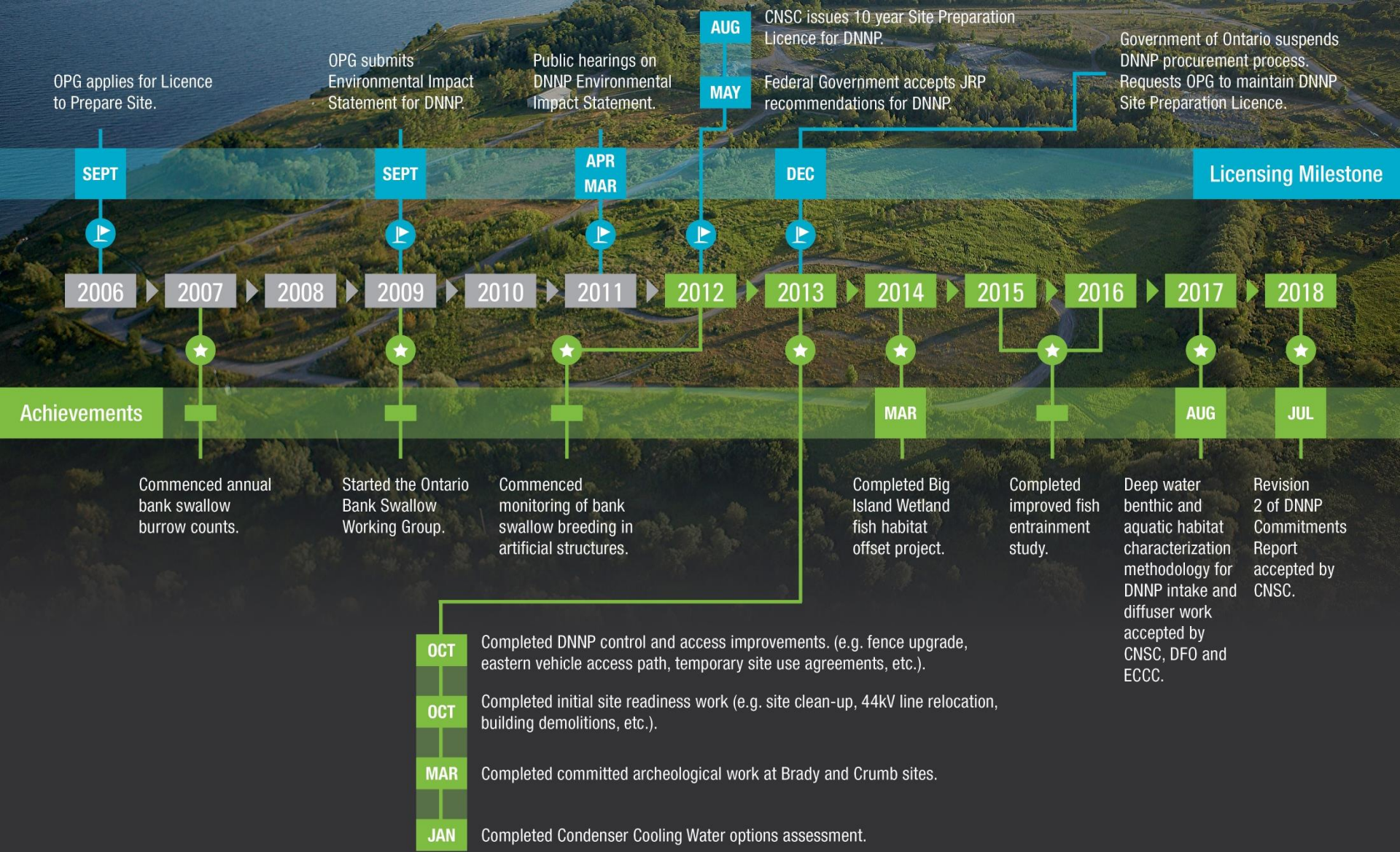
-  Darlington Nuclear Site Boundary
-  Darlington New Nuclear Project Boundary



# Summary of Progress Over Past Five Years

- Since 2012, focused on responsible control and ongoing maintenance of DNNP site:
  - Developed Commitments Report consolidating all OPG commitments and Joint Review Panel (JRP) recommendations
  - Submitted six annual progress reports to CNSC
  - Completed and advanced a number of key long-lead commitments
  - Monitored and provided input on land use policies





# Progress on Commitments



# Commitment Tracking

***OPG is committed to the completion of the mitigation measures and commitments made throughout the Environmental Assessment and Licensing process, including the JRP's recommendations as accepted by the Government of Canada.***

- DNNP Commitments Report:
  - Consolidates OPG's commitments and JRP's recommendations
  - Accepted by CNSC
  - A "living document"
  - Current version posted at [www.opg.com](http://www.opg.com)

# Update on Commitments

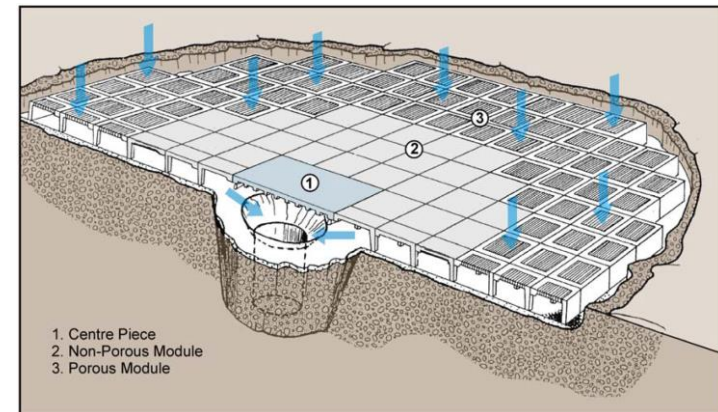
## Archeological Excavation (completed)

- Archeological locations were excavated, documented and artifacts recovered and protected for long-term study
- Documentation transmitted to Ontario Ministry of Tourism, Culture and Sport and CNSC



## Condenser Cooling Water Options Assessment (completed)

- Options assessment completed
- Once-through cooling identified as preferred option
- Report was submitted to CNSC



# Update on Commitments

## Bank Swallow Mitigation Measures

- Annual Bank Swallow burrow counts since 2007
- Coordinated and participated in the Ontario Bank Swallow Working Group
- Two artificial nesting structures tested
- New structure being investigated based on successful international experience



## Environmental Monitoring

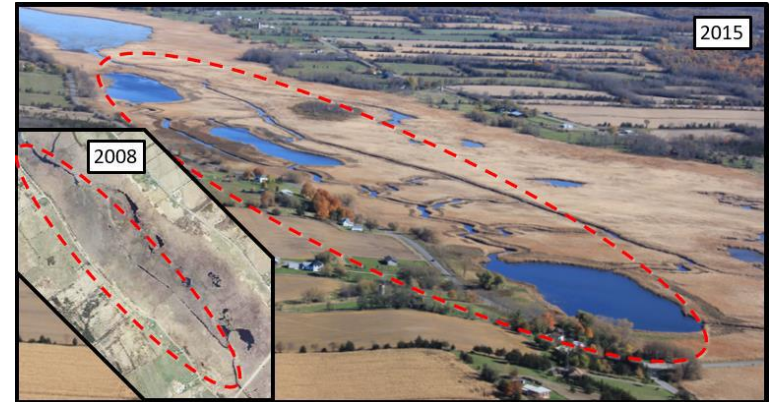
- Site is well characterized through existing programs such as the annual biodiversity program
- Several studies completed to monitor surface water, sediment quality, and the aquatic environment



# Update on Commitments

## Fish Habitat

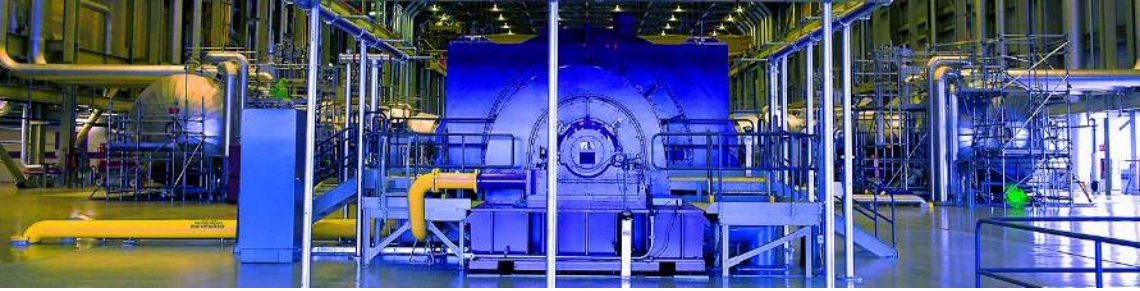
- Developed Big Island Wetland Project as a fish habitat offset measure to address impingement and entrainment at Darlington and Pickering stations
- Also intend to be used as offset measure for DNNP



## Round Whitefish Action Plan

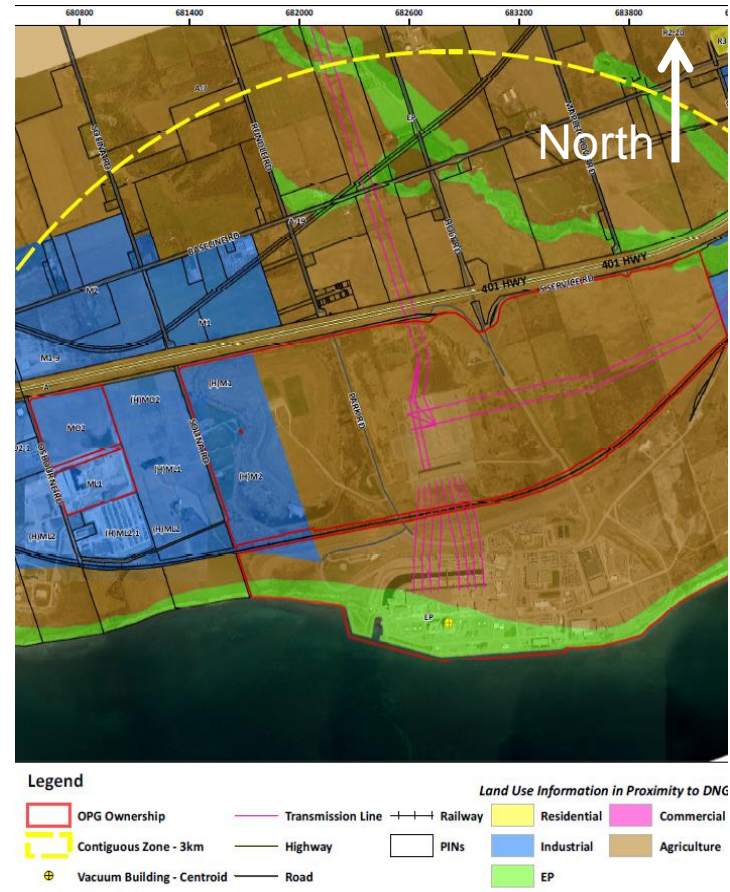
- Studies commissioned to better understand Round Whitefish population
- Overall impact of DNNP on Round Whitefish should be less than predicted in Environmental Assessment
- Continue to monitor scientific advances in thermal impacts on Round Whitefish

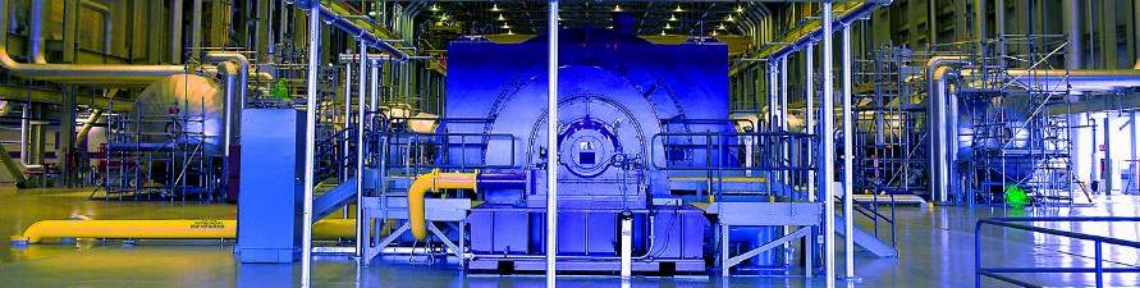




# Land Use Management

- OPG monitors development applications submitted within 10 km of Darlington site
- No development applications proposing sensitive land uses within 3 km of site
- Continue to engage with provincial, regional and municipal representatives regarding sensitive land uses





# Fukushima Findings

- OPG is internationally recognized as a leader in our response to Fukushima
- Current OPG policies and procedures reflect lessons learned from Fukushima
- Any future new nuclear construction would adhere to new level of enhanced safety measures





North ↑

# Infrastructure



# Infrastructure

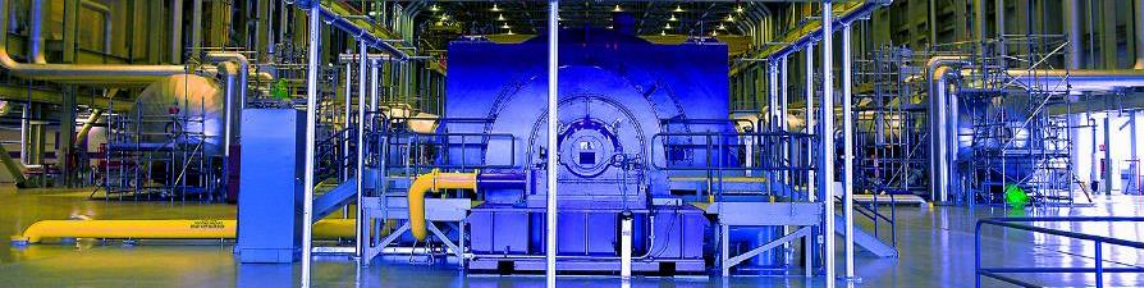
- Completed access control improvements:
  - fencing upgrade, eastern vehicle access path, monitoring uses of the site
- Completed initial readiness projects including:
  - construction debris clean-up, 44 kV line relocation, building demolitions
- Key supporting infrastructure projects advancing:
  - Holt Road / Highway 401 interchange upgrade is complete
  - 407 East construction made significant progress during this period





## Indigenous and Stakeholder Relations

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# Indigenous Relations

- Continued engagement with interested Indigenous Communities
- Mid-term report shared with the Mississauga Anishnawbeg, Mohawks of the Bay of Quinte and Metis Nation of Ontario Region 8

## A RICH HISTORY, A BRILLIANT FUTURE

The Mississauga are part of the much larger culture group called the Anishnawbeg. Their ancestors' 10th millennium of their coming from the great salt water headwaters of the St. Lawrence and Huron basins that flow north of the water pressure in west. To the city, the Mississauga represent the foundation of our existing civilization.

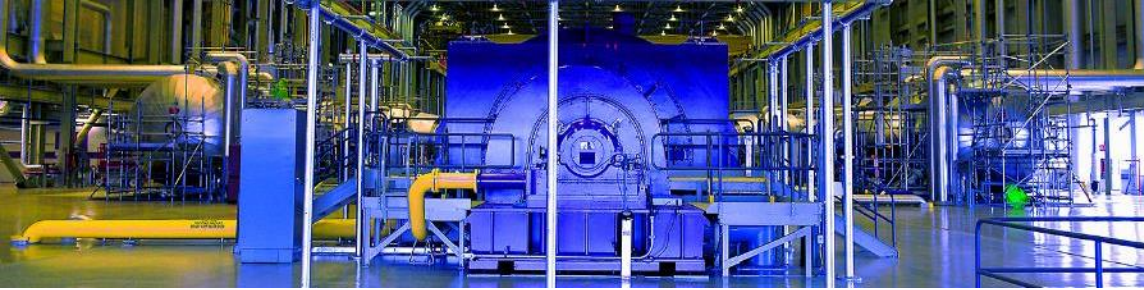
The Mississauga Nations, Anishnawbeg and Anishnawbegs, a vast area that stretches from Niagara Falls to the St. Lawrence River at Ganaraska and on to the St. Lawrence River, after which they called their territory. Just as the Ojibwa, one of their communities, are located near the Indigenous Anishnawbeg, Anishnawbeg, Ojibwa, Huron, Cayuga, Seneca, Oneida and Mohawk.

In the time of the American Revolution (1775), when the British sought aid in their fight against the Americans, it was the Mississauga who stood by their side. The Queen's Proclamation (1763) had set aside the Bay of Quinte, Cayuga, Huron and Seneca as the British-Canadian territory. The Mississauga were the only people to be recognized as a nation in 1763.

The treaty document was signed in 1763. The Mississauga Nation of its efforts was a key player in building the country of North America. Through their leadership, the Mississauga have been recognized as the foundation of our existing civilization.

**SHARED TRADITIONAL TERRITORIES OF THE MISSISSAUGA SIGNATORIES TO THE 1923 WILLIAMS TREATIES**

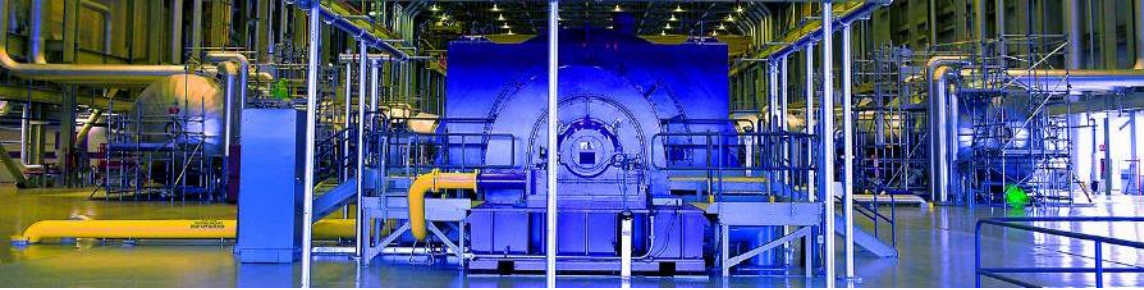
- ① 1923 Williams Treaty, Clause #1
- ② 1923 Williams Treaty, Clause #2
- ③ 1818 Rice Lake, Treaty #20
- ④ 1856 Islands, Treaty #78
- ⑤ 1819/1822 Rideau Purchases, Treaty #27 and #27.1
- ⑥ 1783 Crawford Purchases
- ⑦ 1856 Islands, Treaty #77



# Stakeholder Relations

- Continued communications with local community and stakeholders about DNNP
- As part of ongoing existing communications program, provide presentations, tours and information on station operations, current and future projects including DNNP





# Ongoing Activities

- Continue to maintain the DNNP site in accordance with licence requirements
- Continue to increase the readiness level of the DNNP site for project activities
- Continue activities for renewal of Site Preparation Licence
- Continue to keep CNSC informed of activities occurring on DNNP site





# Conclusion

- Long history of safe nuclear operations and successful project management
- Highly skilled staff with extensive experience and expertise
- Remain confident in the conclusions of the DNNP EA: the project will result in no significant adverse environmental effects given mitigation
- Commitment to continue maintaining the site preparation licence:
  - Responsibly managing DNNP site
  - Meeting licence requirements and progressing commitments
- OPG is ready to further advance project activities upon direction from OPG shareholder