

October 19, 2016 Meeting Minutes

Meeting of Ontario Power Generation and the Canadian Environmental Assessment Agency Regarding the DGR Project

Overview of OPG's Response to Additional Information Request

- Please see attached pdf OPG presentation

Agency's Review Process for OPG's Additional Information

- The requested additional information, on alternate locations of the Project, cumulative effects analysis and mitigation commitments, is needed to allow the Minister to complete the environmental assessment and determine whether the Project is likely to cause significant adverse environmental effects
- The Agency will undertake the review of the additional information, assisted by federal authorities (CNSC, ECCC, NRCAN, HC and DFO), when it is submitted.
- The process will be open and transparent, and include opportunities for participation by the public and Indigenous groups. The public and Indigenous groups will be invited to review and comment on:
 - the additional information submitted by OPG;
 - the report that the Agency will prepare following its analysis of the additional information; and
 - potential conditions with which OPG must comply, if the project is allowed to proceed.
- The Agency is making participant funding available to assist the public and Indigenous groups in participating in the remaining steps of the review of the proposed DGR project. The public notice regarding the availability of funding was posted on October 26, 2016 and applications will be accepted until November 22, 2016.

Agency's Crown Consultation Plan and Indigenous Engagement Process

- The Agency has contacted Indigenous groups concerning the next steps in the EA process for the DGR project. Notifications for participant funding opportunities have been provided as well. The Agency will continue its consultation and engagement activities throughout the EA process.

Update on OPG's Engagement Activities for the DGR Project

- OPG intends to present its preliminary findings and results of its additional information in the form of "stakeholder meetings" in November 2016. OPG will provide a similar presentation to participants as was given in this meeting. OPG will have separate meetings with Indigenous groups in November 2016.

Next Steps

- OPG intends to submit the additional information to the Agency in December 2016. The Agency will coordinate with OPG on the timing of posting of the additional information on OPG's website.

**Ontario Power Generation's
Deep Geologic Repository (DGR) for Low and Intermediate-Level Radioactive
Waste Project**

Wednesday, October 19, 2016

9:30 am to 12:30 pm

160 Elgin Street, 14th floor

Saguenay Room

Agenda

Attendees

OPG representatives: Jerry Keto, Heather Ferguson, Ian Jacobsen, Donna Pawlowski, Gord Sullivan and Paul Gierszewski (NWMO)

Agency representatives: Kurt Saunders, Colette Spagnuolo, Cindy Parker, Robyn-Lynne Virtue and Elyse Maisonneuve

CNSC representatives: Brian Torrie, Karine Glenn, Pamela Doughty, Candida Cianci and Adam Levine

- 1. Introductions**
- 2. Overview of OPG's Response to Additional Information Request**
- 3. Agency's Review Process for OPG's Additional Information**
- Break (15 minutes)**
- 4. Agency's Crown Consultation Plan and Indigenous Engagement Process**
- 5. Update on OPG's Indigenous Engagement for the DGR Project**
- 6. Next Steps**



OPG's Deep Geologic Repository Project – Response to the Minister's Requests

October 19, 2016

Jerry Keto, Vice President, Nuclear Decommissioning

ONTARIO **POWER**
GENERATION

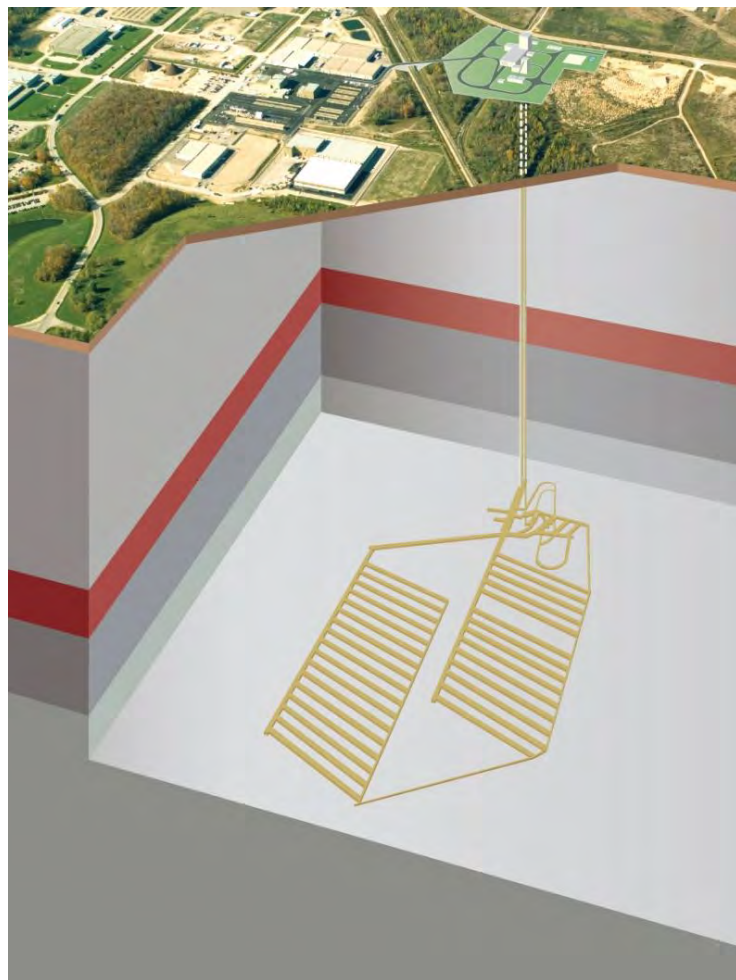


Agenda

- OPG's DGR - Background
- Minister's Request for Additional Information
 - Study of Alternate Locations
 - Cumulative Effects Analysis
 - Mitigations
- Indigenous Peoples Engagement



OPG's Deep Geologic Repository (DGR)



- OPG has a plan for the long term management of its nuclear waste, a Deep Geologic Repository at the Bruce Nuclear site.
- The DGR will safely store all low and intermediate level waste from OPG's nuclear facilities 680 meters underground in an impermeable geologic formation.
- The plan:
 - Is key to nuclear refurbishment
 - Has a social licence
 - Is science-based
 - Protects Lake Huron
 - Is fully funded
 - Is safer than leaving the waste in interim storage
 - Has been validated by international experts
- OPG is currently seeking Regulatory Approval for the Project.



Request for Additional Information and OPG Response

- OPG was requested to provide additional information by the federal Minister of Environment and Climate Change
- OPG will provide a cover letter and three packages of information, in response to the Minister's Request:
 - Package #1: Study of Alternate Locations
 - Package #2: Cumulative Effects Analysis
 - Package #3: Mitigations
- Each package will be discussed separately in this presentation (final submission may vary)



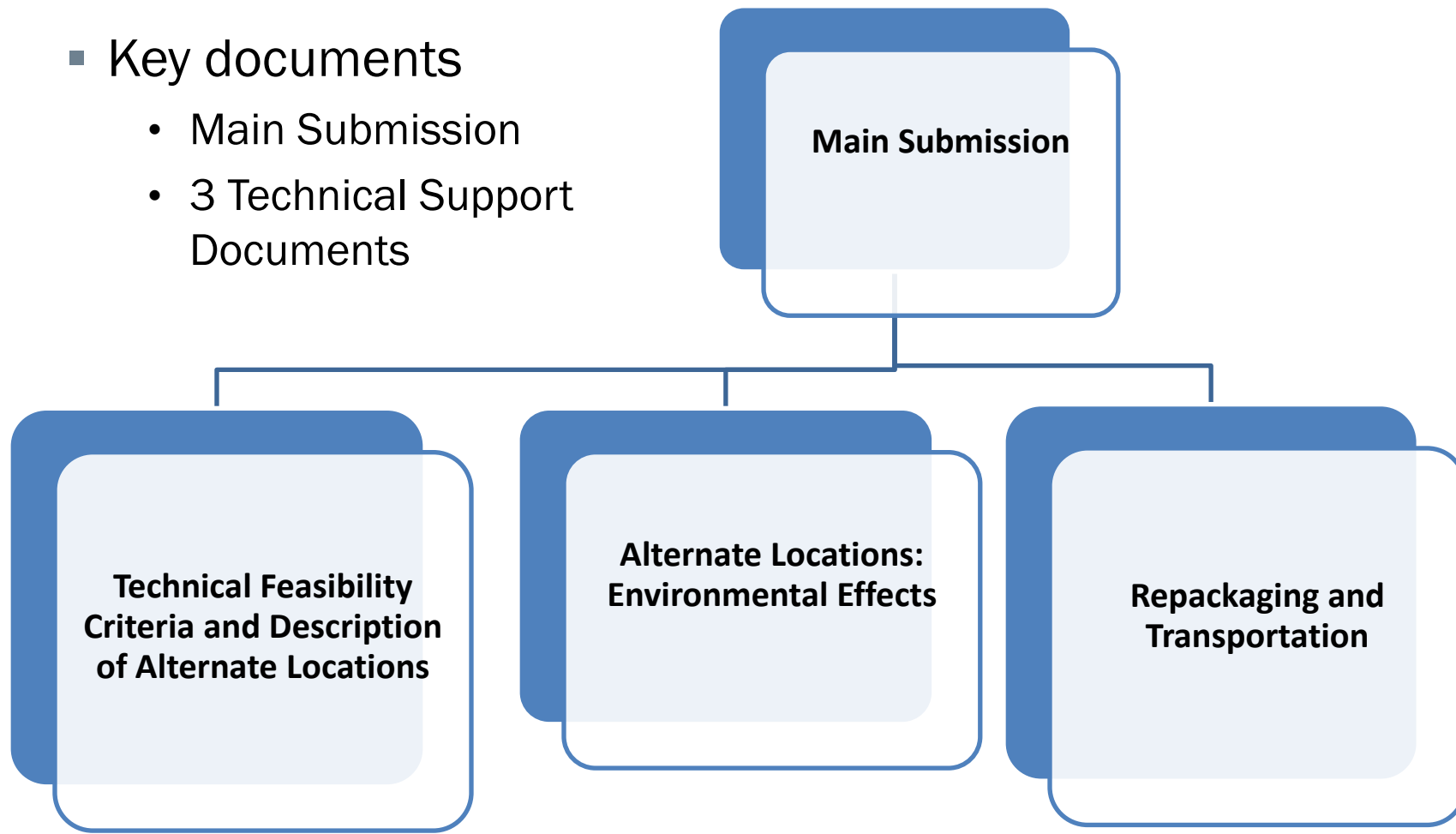
Study of Alternate Locations Information Requested

- “A study that details the environmental effects of technically and economically feasible alternate locations for the Project, with specific reference to actual locations that would meet OPG’s criteria for technical and economic feasibility. In conducting this study, OPG is to detail the thresholds for what is considered to be technically and economically feasible.
- In addition, OPG is to indicate what the incremental costs and risks would be for additional off-site transportation of the nuclear waste.”
- Addendum
 - “...the analysis of environmental effects of alternate locations to be provided by OPG provide a narrative assessment that does not assume that alternate sites in the geologic formation would have the same geographical and hydrological characteristics of the preferred site.”



Study of Alternate Locations Content and Structure of OPG's Response

- Key documents
 - Main Submission
 - 3 Technical Support Documents





Study of Alternate Locations: Main Submission/Study

- Provides context/overview
- Describes the geologic regional study approach
- Summarizes work on
 - Technical and economic feasibility criteria, thresholds where appropriate
 - Description of Alternate Locations
 - Environmental Effects Methodology and Findings
 - Transportation Program including costs and risk
 - Other Project Costs
- Provides overall summary/conclusions



Study of Alternate Locations

Technical Report #1:

Description of Alternate Locations

- Describes technical/safety feasibility criteria including thresholds (where applicable)
- Demonstrates consistency with technical feasibility criteria used in EIS, Canadian and International requirements
- Describes key characteristics of alternate locations in two geologies:
 - Sedimentary geologic region, Crystalline geologic region
- Discusses key characteristics of alternate locations (e.g. Geology and Hydrogeology, Aquatic Environment, etc.)
- Discusses the feasibility of the alternate locations



Study of Alternate Locations Technical Report #2: Environmental Effects at Alternate Locations

- Describes methodology to assess environmental effects at alternate locations
- Describes potential environmental effects for selected Valued Components (e.g. Geology and Hydrogeology, Atmospheric Environment, Aquatic Environment, etc.)
- Compares environmental effects of alternate locations with Bruce Nuclear Site



Study of Alternate Locations

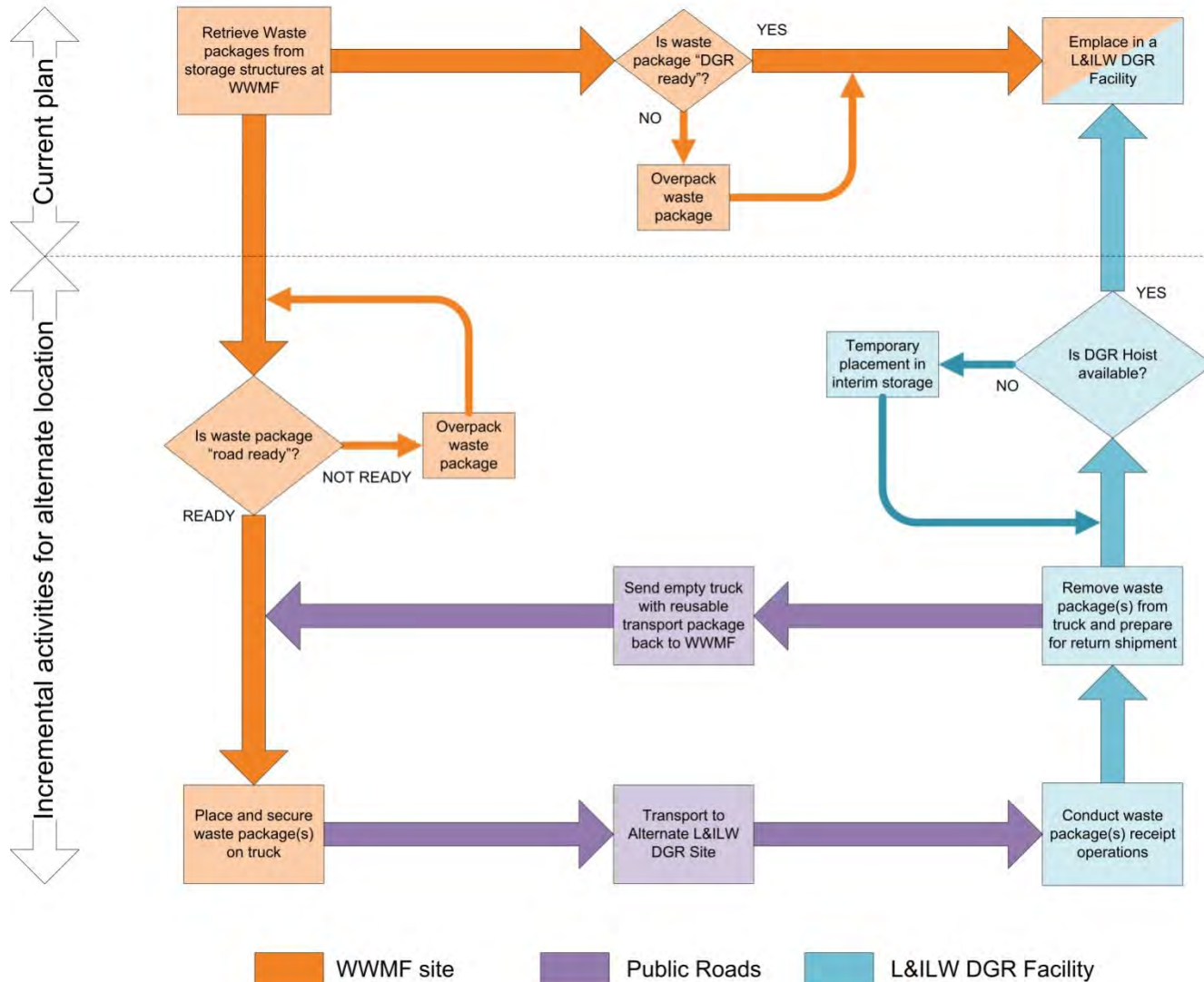
Technical Report #3: Transportation Costs and Risks

- Describes transportation program, following waste package retrieval from the WWMF, including:
 - Re-packaging and Transport Containers
 - ▶ Requires certified packaging for transport on public roads
 - Transportation distances
 - Off-loading
 - Incremental facility requirements at Alternate Locations
- Describes transportation program costs
- Describes transportation risks
 - Conventional accidents
 - Radiological risks



Study of Alternate Locations

Key Steps in the Transportation of L&ILW to a DGR at an Alternate Location





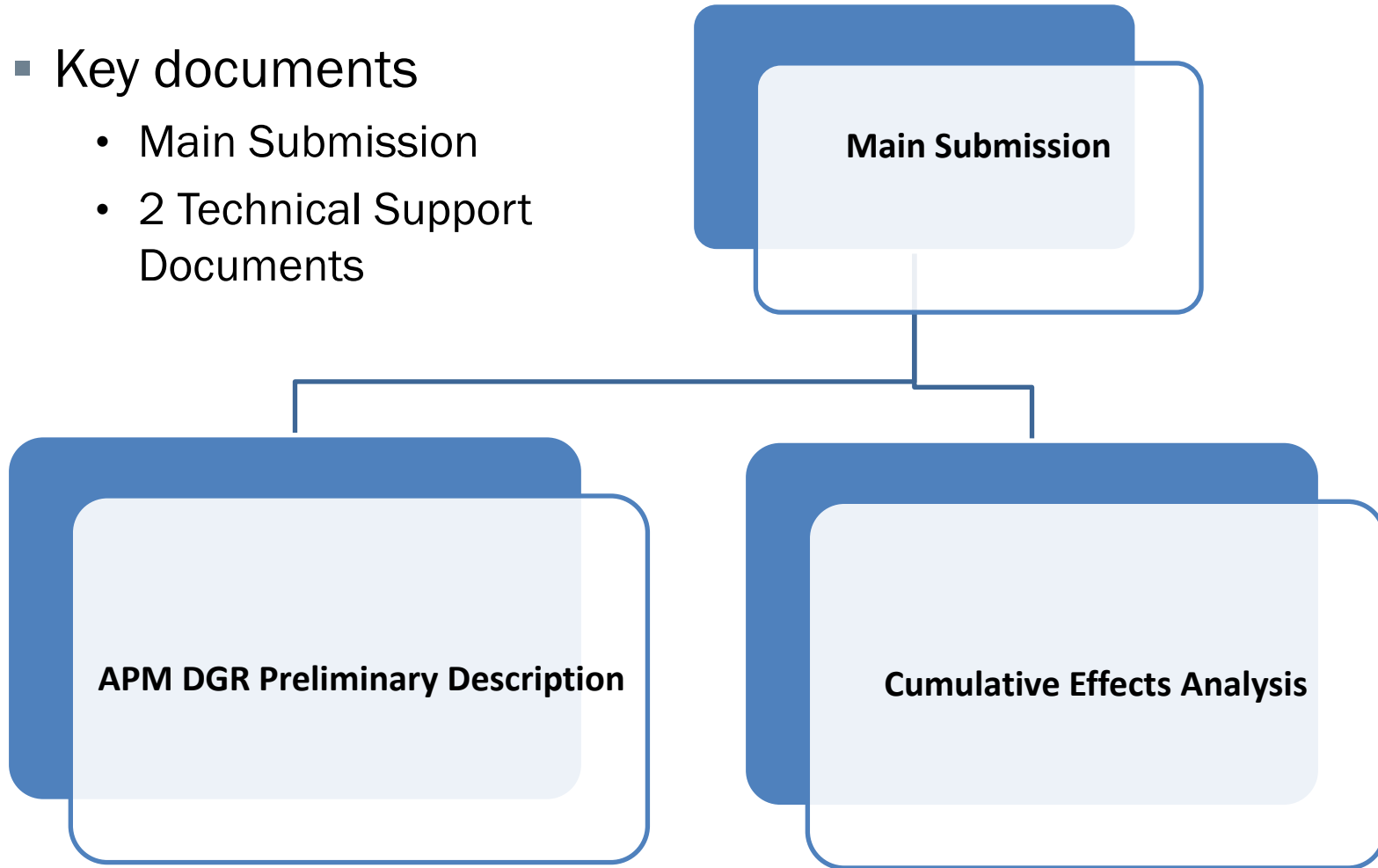
Cumulative Effects Analysis Information Requested

- “An updated analysis of the cumulative environmental effects of the Project in light of the results from the Phase 1 Preliminary Assessments undertaken by the NWMO, which identified three potential host communities that fall within the traditional territory of the Saugeen Ojibway Nation.”
- Addendum
 - “...the Agency requests that OPG include the Municipality of Central Huron in its cumulative effects assessment.
 - ...OPG is directed to take a valued component approach to its updated cumulative effects analysis.
 - ...if there are potential residual adverse effects resulting from a fuel repository in Central Huron, those residual effects should be considered, on a valued component basis, if they fall within the spatial boundary identified by OPG.
 - ...the environmental effects of accidents and malfunctions must be considered....if they are likely to result from the Project...”



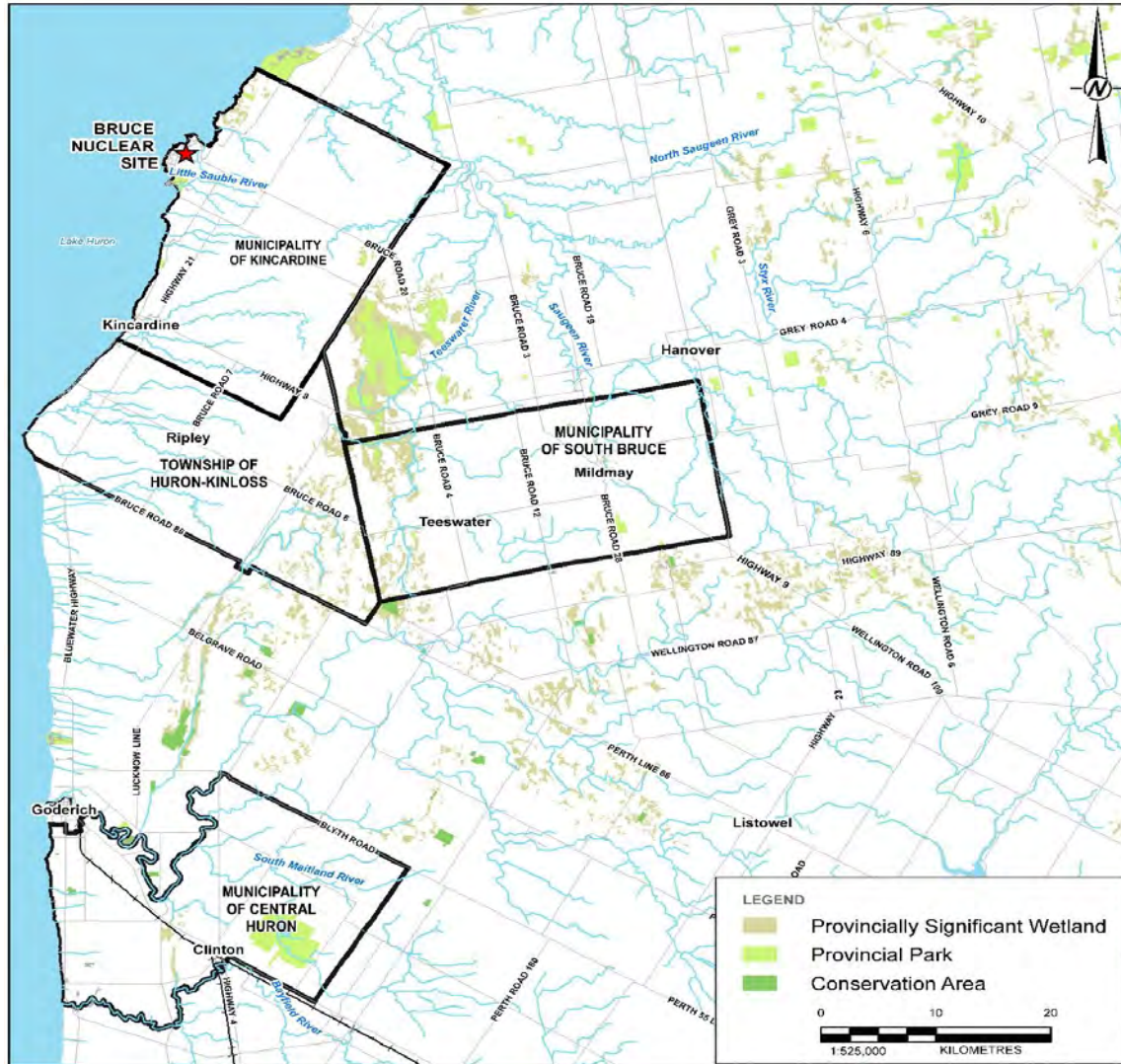
Cumulative Effects Analysis: Content and Structure of OPG's Response

- Key documents
 - Main Submission
 - 2 Technical Support Documents





Cumulative Effects Analysis: Map of Municipalities





Mitigations Information Requested

- “An updated list of mitigation commitments for each identified adverse effect under CEAA 2012. OPG shall identify out-dated or redundant commitments that were previously brought forward to the Panel.”
- Addendum
 - “...OPG’s understanding of the Minister’s requests for further information and/or additional studies in the area of mitigation measures is substantially accurate.”



Mitigations: Structure of OPG's Response

- One Report
- Updated list of mitigation commitments for each identified adverse effect
- Approximately 150 in total including:
 - those identified in the conduct of the EIS,
 - mitigation measures identified in CEAA's proposed conditions as accepted by OPG, and
 - monitoring commitments to confirm that mitigation measures are effective and the effects are as predicted.
- The submission also identifies outdated (i.e., completed or updated) and redundant commitments, and any new ones identified in the response to this information request (if any).





International Expert Panel

- OPG has engaged a 3-person panel of internationally recognized experts in siting, review, environmental protection, management and regulation of repositories for nuclear wastes.
- The role of the Panel is to assess the rigour and adequacy of the approach to the Study of Alternate Locations, and consistency with international practices.



Next Steps

- OPG is on track to provide the Canadian Environmental Assessment Agency the requested information by end of 2016 including:
 - Additional information on alternative means, including new information on the environmental effects at alternate locations as well as incremental transportation program costs and risks.
 - Additional information on the cumulative effects analysis, including an analysis of a potential future APM DGR located in one of three potential host communities that fall within the traditional territory of the Saugeen Ojibway Nation.
 - A report which consolidates the environmental mitigation commitments.
- This additional information supports the current plan for OPG's DGR at the Bruce Nuclear site as a safe and cost effective long-term management solution.



Indigenous Relations

- OPG has met with and briefed the following First Nations and Métis Communities regarding the Minister's information requests on the DGR.
 - Saugeen Ojibway Nation
 - Historic Saugeen Métis
 - Métis Nation of Ontario Georgian Bay Tribal Territory Consultation Committee
 - Williams Treaties First Nations
- OPG will continue to share information and engage as the work progresses.