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**Written Submission from  
Fisheries and Oceans Canada**

In the Matter of

**Ontario Power Generation Inc.**

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Proposed Environmental Impact Statement  
for OPG's Deep Geological Repository  
(DGR) Project for Low and Intermediate  
Level Waste

Joint Review Panel

**September 16 to October 12, 2013**

**Mémoire de  
Pêches et Océans Canada**

À l'égard de

**Ontario Power Generation Inc.**

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Étude proposée pour l'énoncé des incidences  
environnementales pour l'Installation de  
stockage de déchets radioactifs à faible et  
moyenne activité dans des couches géologiques  
profondes

Commission d'examen conjoint

**16 septembre au 12 octobre 2013**

**CANADIAN NUCLEAR SAFETY COMMISSION  
CANADIAN ENVIRONMENTAL ASSESSMENT ACT  
JOINT REVIEW PANEL**

**IN RESPECT OF**

**ONTARIO POWER GENERATION'S**

**DEEP GEOLOGIC REPOSITORY FOR LOW & INTERMEDIATE LEVEL  
RADIOACTIVE WASTES**

**SUBMISSION OF THE  
FISHERIES AND OCEANS CANADA**

**September 2013**

**DFO Signatory:**



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**A/Regional Director General  
Central and Arctic Region  
Fisheries and Oceans Canada**

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## **Executive Summary**

The Deep Geological Repository for Low and Intermediate Level Radio Active Wastes (DGR) is a proposal by Ontario Power Generation (OPG) to construct and operate a deep geologic repository at the Bruce Nuclear Power site. This facility is for wastes produced from the operation of OPG-owned nuclear generation facilities at Bruce, Pickering and Darlington, Ontario. On June 18, 2013 the Joint Review Panel examining this proposal requested a written and oral presentation from Fisheries and Oceans Canada (DFO). This document is the written submission by DFO.

For this assessment DFO is acting as a Federal Authority and is providing specialist or expert information or knowledge on environmental matters, in accordance with the expertise that the department has available as it relates to DFO's mandate; in accordance with section 20 of the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) and, in accordance with DFO's regulatory responsibilities.

This submission summarizes DFO's advice, observations and recommendations based on a review of the information provided by OPG. This includes the proponent's Environmental Impact Statement and supporting documents, their responses to the Information Requests issued by the Joint Review Panel, other information available to DFO, field site visits, and information posted on the Canadian Environmental Assessment Registry.

DFO's submission focuses on our concerns related to fish and fish habitat. DFO has concluded that if proposed mitigation measures are implemented, impact to fish and fish habitat should not occur as a result of this proposal. DFO's single recommendation to the joint review panel can be found on page 5.



## **DFO Mandate, Roles & Responsibilities**

### ***Constitution Act***

Section 91(12) of the *Constitution Act, 1867* gives the federal government exclusive legislative authority for “Sea Coast and Inland Fisheries”. In non-tidal waters, the Courts have found that there is a right of property in the fisheries. Under section 92 of the *Constitution Act, 1867*, the provinces have exclusive jurisdiction over matters dealing with, among other things, “property and civil rights” and “generally all matters of merely local or private nature in the Province”. Provincial jurisdiction arises from the ownership by the province of the bed of rivers, lakes and other waterbodies which gives rise to the incidental proprietary rights, including the right to fish and to convey that right (e.g. to determine who can fish). Essentially, the federal government has jurisdiction to set the fishing rules in non-tidal waters while the provinces have the jurisdiction to decide who gets to fish. Because of the shared jurisdiction over fisheries in non-tidal waters, in many provinces, including Ontario, federal administration has been delegated to provincial officials to facilitate management of the fisheries and to avoid duplication.

### ***Fisheries Act***

The Minister of Fisheries and Oceans is responsible to Parliament for the administration of the *Fisheries Act* and its regulations. On behalf of the Government of Canada, DFO is responsible for developing and implementing policies and programs in support of Canada’s scientific, ecological, social and economic interests in relation to sea, coastal and inland fisheries, and oceans in general.

DFO exercises this authority through, among other things, administration of the *Fisheries Act*, the *Oceans Act* and some aspects of the *Species at Risk Act* (SARA). Under the *Fisheries Act*, DFO is responsible for the management, protection and conservation of fish and their habitats. The *Oceans Act* charges the Minister with leading oceans management and providing coast guard and hydrographic services.

In general, DFO’s primary focus in reviewing proposed developments in and around Canadian fisheries waters is to ensure that works, undertakings or activities are conducted in such a way that ensures compliance with the applicable provisions of the *Fisheries Act*. In particular, section 35 of the *Fisheries Act* prohibits the harmful alteration or disruption, or the destruction of fish habitat (HADD) without a subsection 35(2) authorization from the Minister of Fisheries and Oceans or without a regulation made by the Governor in Council under the *Fisheries Act*.

There are other sections of the *Fisheries Act* that pertain to the conservation and protection of fish and fish habitat. They include section 20 (fish ways), and section 30 (fish guards), among others. Section 36 prohibits the deposit of a deleterious substance into fish bearing waters unless authorized by a regulation under the *Fisheries Act*. Environment Canada (EC), on behalf of the Minister of Fisheries and Oceans, administers section 36 of the *Fisheries Act*. DFO relies upon advice provided by EC regarding issues pertaining to water quality.



### ***Species at Risk Act***

The Minister of Fisheries and Oceans is one of the competent ministers under SARA for listed aquatic species, including fish (as defined in section 2 of the *Fisheries Act*) and marine plants (as defined in section 47 of the *Fisheries Act*).

SARA is intended to prevent wildlife species from being extirpated or becoming extinct, to provide for the recovery of endangered or threatened species, and to encourage the management of other species to prevent them from becoming at risk. Under SARA, the Minister of Fisheries and Oceans is the competent minister for listed aquatic species, including fish (as defined in section 2 of the *Fisheries Act*) and marine plants (as defined in section 47 of the *Fisheries Act*), other than individuals that are in or on federal lands that are administered by the Minister responsible for Parks Canada Agency (PCA) and that are national parks, national historic sites or other protected heritage areas as those expressions are defined under the *Parks Canada Agency Act*. The Minister of the Environment is responsible with respect to all other individuals.

### **Federal-Provincial Agreements**

Given the province (by way of the Ontario Ministry of Natural Resources (OMNR)) has the constitutional responsibility for the management of fisheries in Ontario and the inherent interdependency that exists with DFO's regulatory mandate to protect fish and fish habitat, DFO and OMNR have a strong working relationship based on formal and informal working arrangements. Foundational to this relationship is the *Canadian-Ontario Fisheries Agreement*, which renews and strengthens cooperation between Canada and Ontario to protect and maintain healthy aquatic ecosystems and associated fish communities, to rehabilitate those now degraded and to ensure continued supplies of fish and fishing opportunities. DFO does not have memoranda of understanding with other regulatory bodies regarding authorization of impacts to fish and fish habitat.



## Ecological Risk Assessment

### DGR Construction Site

The DGR construction site lacks aquatic features that would provide fish habitat. Most of the surface drainage of the site flows off the site and through an unnamed constructed ditch that drains into MacPherson Bay, Lake Huron. This ditch is dry most of the year, choked with aquatic vegetation, and does not provide fish habitat.

### N-S Railway Ditch

The North and South Railway Ditches run on either side of a railroad that is just south of the proposed DGR construction site. A smaller amount of drainage from the DGR construction site flows into the North railway ditch and eventually into Stream C and then Baie du Dore, Lake Huron. The North Railway ditch is dry most of the year and does not contain fish. The South railway ditch contains warmwater baitfish that are resilient to environmental alterations. A culvert crossing of these ditches is proposed in order to create access to the construction site from its south side. Impacts to the local fish community from this work can be avoided and mitigated by implementing measures proposed by the proponent during construction of these crossings. These measures include embedding culverts below the bed of the ditch, isolating and dewatering the culvert site during construction, doing construction when in-water work timing restrictions are not in place (construction should occur during July 1 to September 30<sup>th</sup>), re-vegetating the banks upon completion of construction, and having sediment and erosion control measures in place during construction. By undertaking the installation of these culvert crossings in this manner, impacts to fish and fish habitat are not anticipated. Therefore, DFO does not have a regulatory interest (i.e. authorization per ss. 35(2) of the *Fisheries Act* is not required) in this aspect of the project.

#### **Recommendation:**

**DFO recommends that the above mitigation measures be implemented during the construction of these culvert crossings.**

### Stream C

Stream C at its closest point is approximately 500 m from the edge of the DGR construction site. It contains coldwater and warmwater fish species. Re-grading of the DGR construction site will result in a 0.8% reduction of surface water flows to Stream C, which will not affect the amount or suitability of habitat available to fish therein. There is no construction proposed in or near Stream C. Stream C flows into Baie du Dore, Lake Huron.



### **Baie du Dore and Lake Huron**

There is no proposed construction in or near Baie du Dore or Lake Huron as part of this proposal. Based on proposed mitigation measures being implemented in the ephemeral and intermittent tributaries, impacts to fish and fish habitat in these waterbodies are not anticipated.

### **Burrowing Crayfish**

Some Burrowing Crayfish and their habitat may be impacted during construction of crossings at the North and South railway ditches. Operationally, DFO does not manage impacts to Burrowing Crayfish under the *Fisheries Act*.

### **On-site Blasting During Construction**

On-site blasting during construction exceeds setback distances identified in DFO guidelines for the acceptable use of explosives to avoid the mortality of fish.

## **Summary of Recommendations**

Based on the above assessment of impacts to fish and fish habitat, with the implementation of proposed mitigation measures, impacts to fish and fish habitat are not anticipated. Therefore, authorizations and/or approvals per the *Fisheries Act* or *Species at Risk Act* will not be required from Fisheries and Oceans Canada for the project to proceed.





## References

### *Fisheries Act*

OPG's Deep Geologic Repository For Low & Intermediate Level Waste Aquatic Environment Technical Support Document. March 2011. Prepared by: Golder Associated Ltd. NWMO DGR-TR-2011-01.

Wright, D.G., and G.E. Hopky. 1998 *Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters*. Canadian Technical Report of Fisheries and Aquatic Sciences 2107:iv + 34p.