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Government of Canada Response to the Report of the Joint Federal-Provincial Review Panel for TOTAL's Joslyn North Oil Sands Mine Project in North-eastern Alberta

The Project

TOTAL E&P Canada Ltd (TOTAL) is proposing the Joslyn North Oil Sands Mine development (the Project) in north-eastern Alberta. The construction phase is scheduled to begin in the winter 2011/2012 with the mining production phase proposed to start in early 2017 and continue until 2037. The Project is one of several actual or proposed oil sands developments in the vicinity of the Athabasca River, north of Fort McMurray, Alberta.

In February 2006, TOTAL applied to the Alberta Energy Resources Conservation Board (ERCB), pursuant to Sections 10 and 11 of the *Oil Sands Conservation Act* and Sections 3, 24, and 26 of the *Oil Sands Conservation Regulation*, and to Alberta Environment (AENV), pursuant to the *Environmental Protection and Enhancement Act* and the *Water Act*, for the construction, operation, and reclamation of an oil sands surface mine and bitumen extraction facility to be located on the west side of the Athabasca River just south of Canadian Natural Resources Limited's (CNRL) Horizon Oil Sands Project and just north west of the Fort McKay First Nation community.

The project consists of an oil sands open pit surface mine and ore preparation and bitumen extraction facilities. It is designed to produce about 16,000 cubic metres per day (100,000 barrels per day) of partially de-asphalted bitumen product (i.e. liquid hydrocarbon). The project also includes tailings management facilities including three sand beach areas for coarse tailings, two disposal areas for thickened tailings and a pond for recycle water; on-site energy generation infrastructure to generate electricity and steam; water infrastructure, including a bank river-water intake system on the Athabasca River and a 90 day off-stream storage pond; roads and crossings, including a haul road underpass beneath the CNRL road and associated utility corridors for powerlines, natural gas, tailings, and recycle water transport lines; on-site infrastructure, including maintenance shops, administration buildings, engineering and operations buildings, and the project camp; material storage facilities, including external disposal areas for overburden and interburden, reclamation material stockpiles; and other supporting infrastructure. The project also includes the realignment of Joslyn Creek and the development of a compensation lake. A progressive reclamation plan and closure plan is also to be included as part of the Project requirements.

The ERCB deemed the application technically complete in January 2008, and AENV determined that the environmental impact assessment was

complete in February 2008. The ERCB was then in a position to make a determination regarding a review of the Project by a public hearing process.

Federal Regulatory Approvals

The Project requires:

1. An authorization from Fisheries and Oceans Canada (DFO) under section 32 of the *Fisheries Act* to permit the destruction of fish by any means other than fishing; an authorization under subsection 35(2) of the *Fisheries Act* to harmfully alter, disrupt or destroy fish habitat;
2. An application made by the proponent under the *Navigable Waters Protection Act* for a water intake to be placed in the Athabasca River will be considered by Transport Canada under subsection 5(3) of this Act. Any and all impacts of the water intake to navigation will be mitigated by the subsection 5(3) approval conditions.

The possibility that DFO would be asked to issue authorizations under the *Fisheries Act* required that DFO ensure that an environmental assessment (EA) was conducted on the proposed project pursuant to the *Canadian Environmental Assessment Act* (CEA Act). The requirement for a subsection 5(3) approval under the *Navigable Waters Protection Act* does not require Transport Canada to conduct an environmental assessment under the CEA Act.

The Environmental Assessment Process

The EA, conducted pursuant to the CEA Act, commenced on February 12, 2008 as a comprehensive study. On March 13, 2008, DFO, as the only Responsible Authority under the CEA Act for the Project, recommended to the Minister of Environment to refer the Project to a Joint Review Panel with Alberta. On April 28, 2008 the Minister of Environment referred the Project to a Joint Review Panel (the Panel) to be conducted in co-operation with Alberta's Energy Resources Conservation Board hearing process and in accordance with the Canada-Alberta Agreement on Environmental Assessment Cooperation. Other federal departments involved in providing expert advice (i.e. Federal Authorities) included Environment Canada, Health Canada, Natural Resources Canada, and Parks Canada Agency.

The EA of the Joslyn North Mine Project was conducted as a joint federal-provincial review panel under the CEA Act and Alberta's *Energy Resources Conservation Act* (ERCA). Under this type of review, the Minister of the Environment (through the Canadian Environmental Assessment Agency) and the ERCB set the terms of reference for the Panel, but the Panel conducts an independent review of the environmental effects of the proposed Project.

Various opportunities for participation by interested parties were provided during the Panel process. Public comment periods were held on the draft agreement concerning the establishment of the Panel including the terms of reference for the Panel and for the supplemental information provided by TOTAL in February 2010.

On September 18, 2008, the Panel requested that TOTAL provide

additional information in order to adequately address the information needs of the Panel's terms of reference. In February 2009, TOTAL informed the Panel that some modifications to their extraction and tailings management technology would be needed which would require TOTAL to update their assessment of the environmental effects of the Project.

In February 2010, TOTAL Canada provided their updated environmental assessment information including their responses to the Joint Review Panel's questions. On March 16, 2010 the Joint Review Panel announced the start of a public comment period to allow the public until May 17, 2010 to submit comments on the proponent's updated information. Federal officials reviewed this information and provided comments to the Joint Review Panel.

On June 25, 2010 the Joint Review Panel announced that it had sufficient information to proceed to the hearing phase. The Panel indicated that all interested parties had until August 24, 2010 to file a submission to the Panel. Federal departments provided a joint Government of Canada submission to the Joint Review Panel on August 24, 2010.

The Joint Review Panel hearings for the Joslyn North Mine Project were held from September 21st to October 1st in Fort McMurray, Alberta and October 5th to 8th in Edmonton, Alberta. Federal department representatives attended the hearing process which included the presentation of federal submission information and expert evidence. Approximately 25 federal officials representing 5 federal departments participated as witnesses during the hearing, represented by Department of Justice legal counsel.

The Panel commenced the hearing process on September 21, 2010 and adjourned it the same day to deliberate on a number of preliminary matters; in particular, questions of constitutional law. The Panel made its decisions on these matters on September 22, 2010. The Panel reconvened the public hearing on September 28, 2010. The hearing ended on October 8, 2010. Undertakings requested by the Panel during the hearing were completed on November 8, 2010.

The Panel considered the following issues with respect to the Project: the need for the Project, alternatives to, and alternative means of carrying out the Project; the mine plan and resource conservation; environmental effects, including effects on wildlife, vegetation and wetlands, water, air quality, fish and fish habitat, historical and paleontological resources, current use of lands and resources for traditional purposes by Aboriginal persons; effects of potential accidents and malfunctions; cumulative environmental effects; sustainability of renewable resources; socio-economic issues including economic benefits, public infrastructure and municipal services, availability of housing and affordable housing, health services, human health, noise, access management; reclamation; liability management; and the proposed end pit lake.

The hearings gave interested parties the opportunity to better understand the Project and its consequences, and to provide their views and concerns to the Panel. TOTAL presented information on the Project and provided clarifications as required. Federal Government agencies also presented their views on the Project and its potential effects and mitigation measures.

The Joint Federal-Provincial Review Panel Report

The Panel delivered its Report to the Minister of the Environment on January 27, 2011. The Panel assessed the environmental effects of the project and their significance, including those caused by possible accidents and malfunctions, and the cumulative environmental effects that the project could cause when combined with the effects from other works, projects, or activities, taking into account measures that TOTAL proposed to mitigate these effects. The Panel also considered the purpose and need for the project, the feasible alternatives, the need for a follow-up program, and the capacity of renewable resources to meet the needs of current and future generations.

With regard to its responsibilities under the *Canadian Environmental Assessment Act* and its terms of reference, the Panel concluded that the Project, meeting the conditions and recommendations imposed would have no net significant adverse effect on species at risk, no significant adverse effect on valued wildlife species and no significant adverse environmental effect on water quality.

Seventeen recommendations were presented by the Panel in their report: one was directed jointly to the federal/provincial government on water quality; and, the federal government (Environment Canada) was implicated in four others. The majority of recommendations were directed at provincial agencies. The Government of Canada's responses to these seventeen recommendations are included at the end of this document.

In addressing the Panel's recommendations, the government committed considerable effort to Recommendation 1 that asks that Alberta, in conjunction with Environment Canada, work with TOTAL to ensure additional protection of species at risk and valued wildlife, including consideration of replacement habitat.

Environment Canada, with the support of TOTAL and Alberta, has secured a package of measures designed to mitigate the impacts of the Joslyn project, as sought by the Panel and required under federal obligations to the CEA Act and *Species at Risk Act* (SARA). The package includes a Conservation Agreement between Environment Canada and TOTAL to secure replacement habitat for the life of the Joslyn mine and an amended wildlife mitigation plan to address on-site measures, including land clearing outside of the nesting season and bird deterrent systems. Setbacks along the Ells River will ensure adequate wildlife corridors are maintained. TOTAL is also committed to comprehensive monitoring and research during the project life to ensure that the progressive rehabilitation of the mine site is calibrated to the habitat needs of the affected species at risk.

The Joint Panel Report also contains a number of conditions and commitments that TOTAL must implement in order to ensure that any potential significant adverse environmental effects are mitigated. A number of these conditions and commitments address recommendations made by federal departments in the written submission to the Panel and at the Panel hearings.

Regional Assessments of the Athabasca River Delta

The Government of Canada supported the inclusion of the Athabasca River Delta in regional study areas for environmental assessments in

the lower Athabasca region as this delta is an important component of lands of federal interest - Wood Buffalo National Park. Inclusion of the Athabasca River Delta in the study areas would enhance cumulative effects assessment of industrial development in the lower Athabasca basin. Furthermore, this will also assist in understanding potential impacts on the use of lands and resources for traditional purposes by aboriginal persons in the Athabasca River Delta. The Government of Canada acknowledges the Panel's statement that it was not in a position to determine if the regional study area selected for the environmental assessment of future projects should include the Athabasca River Delta or not. Further, the Panel is of the view that AENV should address this question, with input from others, in future terms of reference issued for other proposed projects that may affect the Athabasca River. To this end, the Federal Authorities will work collaboratively with AENV in the development of terms of reference for future project assessments towards ensuring our environmental information needs are met with respect to the Athabasca River Delta.

Addressing concerns on water quality monitoring in the oil sands

The Government of Canada has considered the Panel's report and the concerns with the existing water quality data and concerns with potential cumulative effects on water quality in the Athabasca River.

Historical sampling data, including some data from Environment Canada, shows a range of concentrations of oil sand compounds in the Athabasca River. Some compounds are present at concentrations above national guidelines set by the Canadian Council of the Ministers of the Environment and it is uncertain whether these national guidelines are regionally appropriate given the confirmed natural background levels of oil sands contamination in the Athabasca River. A conclusive interpretation is difficult as current laboratory methods are generally unable to determine if observed levels of contaminants are predominantly from naturally occurring contamination, or anthropogenic inputs or both. As noted by the Panel, despite most measured concentrations being very low, there is uncertainty in the degree of cumulative impact of the mines on downstream water quality.

The Government of Canada is leading several initiatives that will underpin an improved understanding and quantification of mine impacts and increased transparency and certainty in the management of water quality. The development of a world class water quality monitoring plan, that included surface water quality, was coordinated by Environment Canada in collaboration with the province of Alberta and should enhanced measures be implemented will allow comprehensive cumulative effects assessment. The plans are designed to maintain scientific rigour and consistency and using increased spatial and temporal sampling resolution, provide a stable and long-term accounting of aquatic environmental quality conditions in the oil sands region. In addition, Environment Canada is developing laboratory methods and field sampling programs to distinguish contaminants from natural vs. anthropogenic sources. Finally, federal research programs are investigating the sources, pathways and fate of contaminants in the ecosystem including their ecological effects. Examples include quantifying the identities and loadings of contaminants entering the river via aerial deposition and through ground water inputs and determining their environmental effects on various ecosystem components like fish and invertebrates.

In the near term and in the context of the Joslyn project, the mine is designed to be hydraulically isolated with no water released to the surrounding ecosystem other than natural drainage from stockpiles of native materials. Project related impacts to the Athabasca River are therefore expected to be minimal and are not anticipated to cause any significant effect on downstream water quality. However, concerns increase with the life of the mine and into closure and decommissioning stages due to uncertainties with the performance of aging tailing ponds and end pit lakes. The Government of Canada made recommendations to the Panel in this respect and is pleased with how the Panel addressed these matters in Recommendations 16 and 17.

Alberta's Lower Athabasca Regional Plan (LARP), if implemented, proposes a tiered water quality monitoring program and introduced draft guidelines on maximum permissible concentrations of some oil sand compounds in the Athabasca River. In its review, Environment Canada proposed to Alberta means for improving the LARP.

Parks Canada is also leading the development of the Peace-Athabasca Delta Ecological Monitoring Program in partnership with local Aboriginal groups, other government departments (federal, provincial, territorial) and non-governmental organizations to better understand the current status of the Peace Athabasca Delta, including any changes to this ecosystem as a result of regional industrial development.

Collectively these initiatives will begin to integrate a variety of monitoring and research efforts to better understand the dynamics and variation of natural water quality and to document the cumulative effects of oil sands mines. What should ultimately emerge is a comprehensive body of scientific knowledge allowing for a more comprehensive quantification of the cumulative effects of oil sand operations on the Athabasca River.

TOTAL's resulting obligations in conjunction with these federal initiatives described above are considered sufficient to quantify and mitigate project related adverse affects to Athabasca water quality in the long term.

Addressing concerns of Aboriginal groups

Aboriginal groups were encouraged to bring forward their concerns through the environmental assessment process, and in particular the Panel's hearings. A number of Aboriginal groups filed Notices of Constitutional Question during the hearing process, but these were withdrawn following the conclusion of a private agreement with the developer. Those Aboriginal groups also withdrew objections to the Project itself. For this Project, the Panel recorded the recommendations made by Aboriginal groups during the hearing process in Appendix 7 of Panel's Report. Agreements between Aboriginal groups and industry have been concluded in respect of prior oil sands developments, and illustrate the social responsibility exercised by industry in this region.

If Aboriginal interests are reconciled with this Project, Aboriginal concerns may be seen as relating to the potential cumulative adverse impacts of potential future oil sands development in the region. The scale and extent of future oil sands development is dependent upon future economic factors, and is subject to future regulatory approval. The exact nature of this development, and therefore the nature and extent of potential regional impacts associated with potential future

development, is unknown at this time.

The Government of Canada acknowledges these concerns and recognizes the necessity to work collaboratively with Alberta in order to appropriately develop tools to address broader regional issues. The Lower Athabasca Water Quality Monitoring Program and the Peace-Athabasca Delta Ecological Monitoring Program illustrate Canada's commitment to a world class monitoring plan in this region. Another example of Canada's commitment in considering potential broader regional cumulative effects in the oil sands region is the development, collaboratively with Alberta, of a Water Management Framework (WMF) for the Lower Athabasca River. The WMF provides guidance to regulators regarding decisions related to the potential cumulative effects of water withdrawals in the Lower Athabasca River.

Canada also supports Alberta's efforts to finalize the Lower Athabasca Regional Plan. The Lower Athabasca Regional Plan will identify and set resource and environmental management outcomes for air, land, water and biodiversity and guide future decisions on resources while considering social and economic impacts. The Panel itself notes that this Plan and its frameworks could be important tools for managing cumulative effects in the Lower Athabasca Region.

Canada continues to contribute to the development of capacity for Aboriginal groups. Canada, Alberta and industry have all contributed to the All Parties Core Agreement with the Athabasca Tribal Council to establish a process for First Nations communities and industry to work together to achieve orderly industrial development and ensure that Aboriginal communities share in the benefits of industrial development. Canada has supported and continues to support economic development for Aboriginal groups in association with sustainable oil sands development. Parliament's enactment of the *First Nations Commercial and Industrial Development Act*, SC 2005, c 53, and the promulgation of the *Fort McKay First Nation Oil Sands Regulations*, SOR/2007-79 illustrates this commitment.

Government of Canada Conclusions

The response to the Panel's Report and recommendations to the Government of Canada are addressed through this federal response pursuant to subsection 37(1.1) of the CEA Act, as approved by the Governor in Council and in consultation with other federal agencies.

In preparation of this Government of Canada Response, DFO, as the Responsible Authority (RA) under the CEA Act, considered the report submitted by the Joint Panel. The Government of Canada, through the RA under the CEA Act, will ensure that the appropriate follow-up programs are designed and implemented as well as ensuring, or satisfying itself, that the appropriate mitigation measures, as set out by the Joint Panel and TOTAL in the environmental assessment, will be implemented.

Taking into consideration the Report of the Panel and the implementation of any mitigation measures that the RA considers appropriate the Government of Canada has determined that the Project is not likely to cause significant adverse environmental effects.

Course of Action Decision

Paragraph 37(1.1)(c) of the CEA Act, indicates that the RA, DFO, shall

take a course of action that is in conformity with the approval of the Governor in Council. As a result, under Subsection 37(1) of the CEA Act, the RA, may exercise any power or perform any duty or function conferred on them by or under any Act of Parliament that would permit the Project to be carried out in whole or in part.

The RA will issue any section 32 or subsection 35(2) Fisheries Act authorizations associated with this Project.

Response to Recommendations

Recommendation 1

The Panel recommends that prior to any authorization of the project, Alberta Sustainable Resource Development consult with Environment Canada as appropriate, and work with TOTAL to ensure that additional mitigation, such as using offsite offsets, avoiding high quality habitat, and conducting research, be identified to ensure that the project would not cause significant adverse effects on species at risk. The new wildlife mitigation plan should not only deal with mitigating impacts on species at risk and valued wildlife, but should also reduce the overall cumulative effects to wildlife. These additional measures should be provided to Alberta Environment for inclusion in any *Environmental Protection and Enhancement Act* approval it may issue. (Section 6.1.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Environment Canada is satisfied with the revised package of wildlife mitigation measures assembled by TOTAL. The package includes replacement habitat to compensate for species at risk habitat affected by the project footprint formalised through a Conservation Agreement with Environment Canada, on-site mitigation measures, as documented in TOTAL's revised wildlife mitigation plan as authorised by Alberta Environment in their *Environmental Protection and Enhancement Act* approvals, additional research and monitoring and setbacks along the Ells River.

Recommendation 2

The Panel recommends that the Energy Resources Conservation Board and Alberta Sustainable Resource Development cooperate to provide an assessment of the implications of resource sterilization to help Alberta Sustainable Resource Development in determining the most appropriate setback of the project from the Ells River. (Section 6.1.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 3

The Panel recommends that the Energy Resources Conservation Board and Alberta Sustainable Resource Development, in consultation with Environment Canada as appropriate, determine the appropriate mine development setbacks from the Athabasca River and the crest of the Ells River valley to ensure effective wildlife corridors and provide these setbacks to Alberta Environment to include in any *Environmental Protection and Enhancement Act* approval it may issue. (Section 6.1.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 4

The Panel recommends that Alberta Environment and Alberta Sustainable Resource Development, with advice from Environment Canada as appropriate, determine what combination of monitoring and follow-up measures TOTAL or the Cumulative Environmental Management Association should conduct and, based on the results of such work, implement such adaptive management measures as are necessary. (Section 6.1.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 5

The Panel recommends that, before the project begins, TOTAL develop and submit a detailed plan to Alberta Environment, in consultation with Environment Canada as appropriate, and to Alberta Sustainable Resource Development for review and approval, outlining its explicit plans to experiment with peat land and reclaim wetland. Alberta Environment should also require that TOTAL develop a follow-up and monitoring program in consultation with Alberta Sustainable Resource Development and Environment Canada, as appropriate, to determine the success of reclaimed wetlands. (Section 6.2.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 6

The Panel recommends that the federal and provincial governments work with the Canadian Council of Ministers of the Environment to develop specific water quality objectives for naphthenic acids. (Section 6.3.2.3)

Response:

The Government of Canada accepts this recommendation noting that a cooperative approach with the province of Alberta is necessary for implementation. Environment Canada will work cooperatively with the province of Alberta and the Canadian Council of Ministers of the Environment in the development of these objectives.

Recommendation 7

The Panel recommends to the Government of Alberta that it develop appropriate *Environmental Protection and Enhancement Act* approval requirements to address continuous benzene monitoring for compliance with the objectives. (Section 6.5.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 8

As changes to current source emission standards are reasonably foreseeable, the Panel recommends that TOTAL as well as proponents of new or expanding oil sands projects incorporate flexibility into their projects so that they can achieve compliance with future standards within a reasonable timeframe. (Section 6.5.3)

Response:

The Government of Canada notes that this recommendation is directed at TOTAL. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 9

The Panel recommends that Alberta Sustainable Resource Development use the Lower Athabasca Regional Plan process to protect key habitats for species at risk and to provide source habitat for species re-colonization in the oil sands area. (Section 7.2.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 10

The Panel recommends that recommendations made by the Cumulative Environmental Management Association in the Terrestrial Ecosystem Management Framework be considered by the Government of Alberta for inclusion in the Lower Athabasca Regional Plan. (Section 7.2.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 11

The Panel recommends that SRD require that forest harvesting within the regional study area be done outside of the migratory bird breeding season (i.e., from April 1 to August 31). (Section 7.2.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 12

The Panel recommends that the Government of Alberta continue to work with the Regional Municipality of Wood Buffalo to ensure that the supply of land for residential development and the necessary planning are in place to meet the existing and expected housing demand in the region. (Section 9.3.2)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 13

The Panel recommends that Alberta Sustainable Resource Development complete the Moose Lake access management plan to provide uninterrupted public access to areas traditionally used west of the proposed project. (Section 9.7.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 14

The Panel recommends that Alberta Environment establish measurable targets for increased indigenous vegetative biodiversity in the reclaimed landscape and the post-closure landscape. (Section 10.1.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work

cooperatively with the province of Alberta to support its implementation.

Recommendation 15

The Panel recommends that Alberta Environment, Alberta Sustainable Resource Development and the Energy Resources Conservation Board work collaboratively to establish direction and standards required for interlease oil sands mine watershed and landform design coordination. The initiative should address legislation and/or regulation requirements and consider recommendations of the Fort McMurray- Athabasca Oil Sands Sub-regional Integrated Resource Plan, the End Land Use Committee Recommendations, the Regional Sustainable Development Strategy, and any other requirement that may be established by Alberta to guide oil sands mine development on public lands. (Section 10.2.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 16

The Panel recommends that Alberta Environment include water quality management conditions in any *Environmental Protection and Enhancement Act* approval it may issue, to specifically address water quality concerns and ensure that the water in TOTAL's end pit lake meets release quality criteria at closure. (Section 12.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Recommendation 17

The Panel recommends that Alberta Environment include the following requirements in any *Environmental Protection and Enhancement Act* approval that it may issue for TOTAL to:

provide functional plans to monitor end pit lake water quality and assess treatment options that TOTAL would implement to meet end pit lake water release criteria within seven years of mine closure;

provide functional plans to ensure that the volume of process-affected water and porewater in the end pit lake does not exceed 15 million cubic metres, and

refine, update, and validate the models used for predicting water quality in the end pit lake based on characterization of the process-affected water that TOTAL plans to transfer into the lake. (Section 12.3)

Response:

The Government of Canada notes that this recommendation is directed to the Province of Alberta. The Government of Canada accepts the intent of this recommendation and where appropriate will work cooperatively with the province of Alberta to support its implementation.

Date Modified: 2011-12-08

