



Suncrude Canada Ltd.

Public Disclosure Document

South West Sand Storage Conversion

July 2008

## 1.0 Introduction

After a review of current inventories and estimated future production, Syncrude Canada Ltd. (Syncrude) has concluded that changes to the tailings management strategy for the Mildred Lake site are required. Accordingly, amendments to Syncrude's regulatory approvals are required to facilitate both interim storage of Mature Fine Tails (MFT) and incorporation of supplemental technology to reduce MFT inventories.

Additional fluid containment is required to contain MFT until in-pit tailings storage space becomes available in 2014. Syncrude proposes to utilize the Southwest Sand Storage (SWSS) facility to contain the interim MFT volumes. Pending regulatory approval, it is Syncrude's intention to utilize the SWSS facility for this purpose by July 2009.

Syncrude plans to continue operation of the Composite Tails (CT) facility at Mildred Lake. However, supplemental technology will be required in the medium to long term in order to reduce MFT inventories to the levels contemplated in Syncrude's Closure and Reclamation (C&R) plan. Subject to technical validation and regulatory approval, this technology will be developed and incorporated in Syncrude's tailings management plans by 2015.

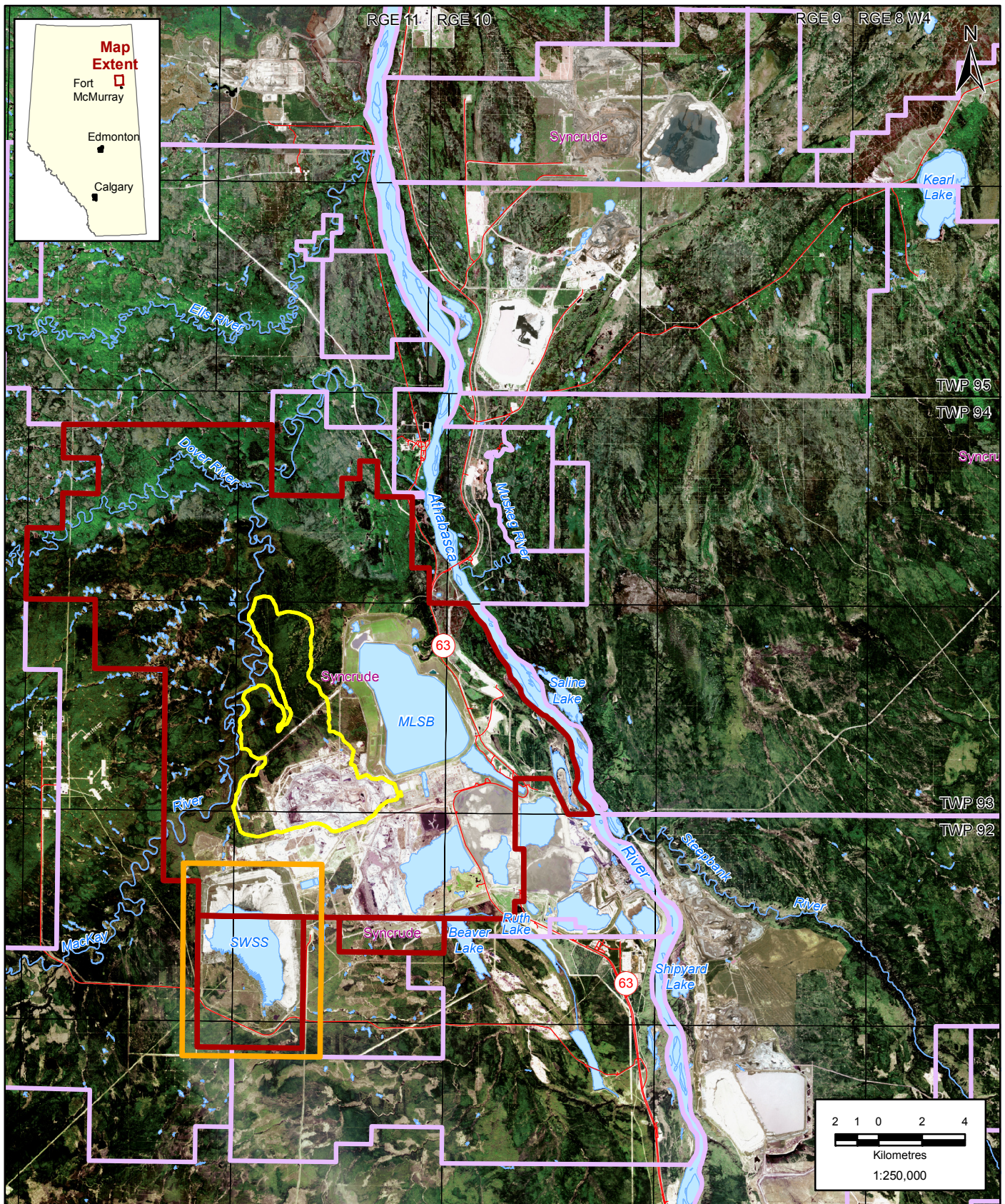
The Syncrude Mildred Lake Project is located approximately 40 kilometres north of Fort McMurray on Oil Sands Leases 17 and 22, within Townships 91 through 94, Ranges 10 through 12 (W4M), and within the Regional Municipality of Wood Buffalo. Figure 1 shows the location of the Mildred Lake Project relative to the city of Fort McMurray and significant regional features.

Under the Memorandum of Understanding (IL96-7) between the Alberta Energy Resources Conservation Board (ERCB) and Alberta Environment (AENV) with respect to oil sands developments, Syncrude will be filing a joint application related to the Mildred Lake Project to amend the following approvals:

- Amendment of ERCB Approval No. 8573 pursuant to Section 13 of the Alberta Oil Sands Conservation Act;
- Amendment of AENV Approval No. 26-02-00 pursuant to Sections 66 and 70 of the Environmental Protection and Enhancement Act; and
- Amendment to AENV Approval No. 26019-00-00 pursuant to section 50 and 54 of the Water Act.



S:\gis\Projects\CE\SynCrude\CE03786\_SW\_Sand\ArcGIS\Projects\0100\_Pri\_Mgmt\Working\Public\_Disclosure\Regional\_Overview\_8-5x11\_08-06-25.mxd



**Legend**

- SWSS Study Area
- Syncrude Mildred Lake Lease Area
- Existing and Future North Mine

**SynCrude**

Southwest  
Sand Storage  
Conversion Project

**Figure 1**  
Regional Overview

Source: Syncrude (2008), GeoBase (2004), NTDB (2002), AltaLIS (Base Features)



## 2.0 Project Description

For purposes of this disclosure, the “Project” in question is the conversion of the SWSS facility to permit interim storage of increased volumes of MFT. Pending regulatory approval, it is Syncrude’s intention to initiate this Project by July 1, 2009.

The SWSS facility is located in the southwest corner of the Mildred Lake lease area, as shown in Figure 1. The SWSS facility is bordered by the AOSTRA road on the south and southwest, with the MacKay River to the west of the facility.

The SWSS facility was commissioned in 1993 with three coarse tailings systems and a fluid return system. The facility was designed to provide coarse tailings sand storage, returning water and thin fine tailings to other sites within the Mildred Lake Project area.

An interim increase in containment capacity will be required in 2009 to contain mature fine tails (MFT) until in-pit tailings storage space becomes available in the North Mine in 2014. Syncrude proposes to utilize the SWSS facility to contain these interim MFT volumes. Changes to the design of the SWSS facility will be required to increase the fluid storage capacity of this facility.

Current approvals for the SWSS facility include the construction of the upstream dyke to a final crest elevation of 400 metres above sea level (masl), maintaining internal fluid levels at or below 385 masl. The redesign of the facility does not change the maximum dyke crest elevation but requires a design change from upstream to centerline dyke construction with elevated fluid levels to 397 masl to provide the interim increase in containment capacity.

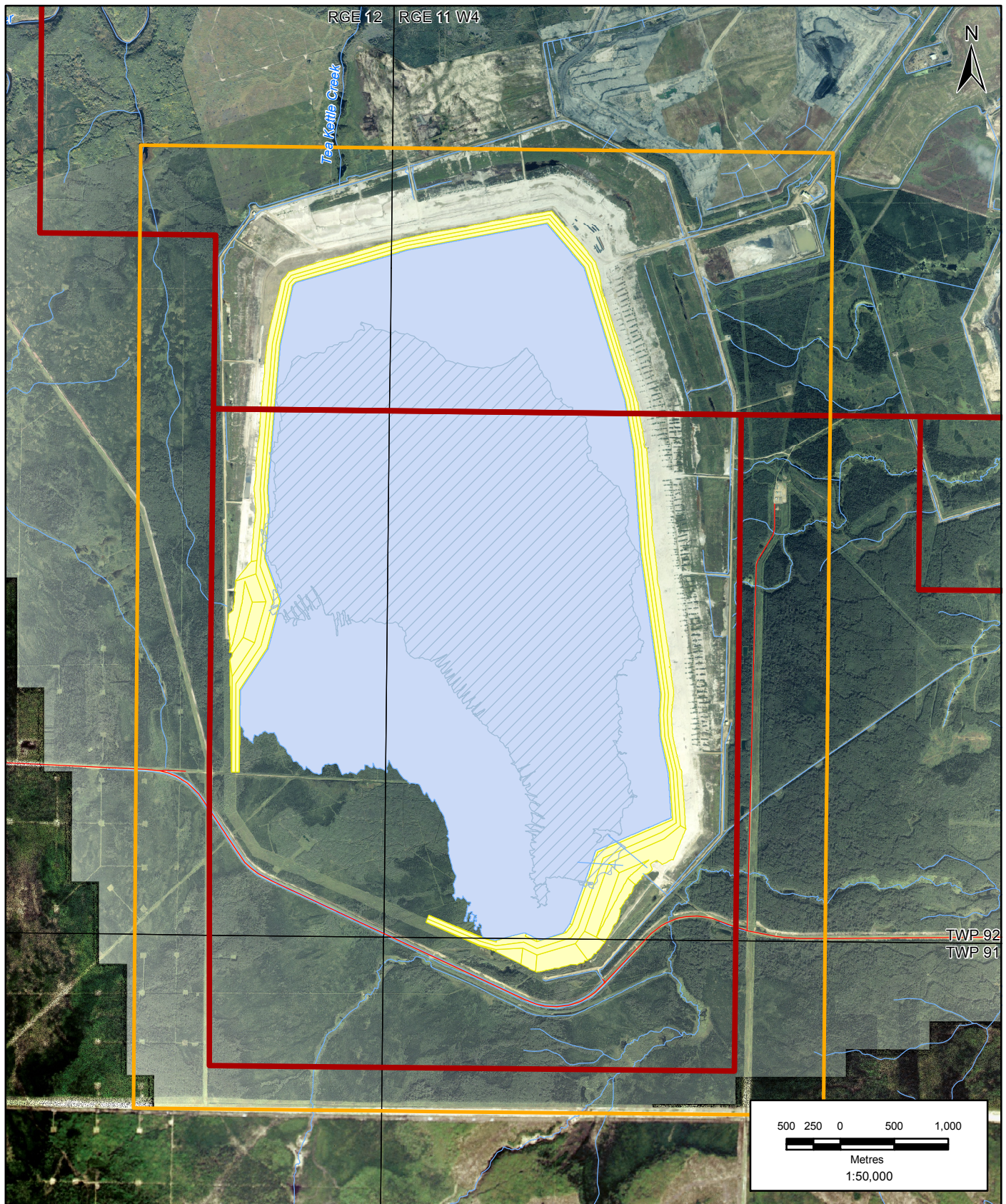
Figure 2 shows the design changes contemplated at the SWSS facility.

As fluid storage space becomes available in the North Mine, MFT transfer from the SWSS to in-pit tailings facilities will begin. Subsequent to the removal of fluids, the SWSS will be capped and reclaimed as a dry sand storage facility.






No additional types of solid waste, liquid effluent, or gaseous emissions are expected from the proposed Project. No additional volumes of fresh water are required for the proposed Project.



S:\gis\Projects\CE\SynCrude\CE03786\_SW\_Sand\ArcGIS\Projects\P0100\_Pri\_Mgmt\Working\Public\_Disclosure\SWSS\_SA\_8-5x11\_08-06-25.mxd



**Legend**

-  SWSS Study Area
-  Syncrude Mildred Lake Lease Area
-  Centerline Dyke at 400m
-  Approved Fluid Level (385 m)
-  Proposed Fluid Level (397 m)

**SynCrude**

Southwest  
Sand Storage  
Conversion Project

Figure 2  
Southwest Sand Storage  
Conversion



### 3.0 Environmental Matters

Baseline studies in the Project area were initiated in the third quarter of 2007 and will continue through the second quarter of 2008. These studies currently include an assessment of air quality and climate, noise, surface water hydrology, water quality, fish and aquatic habitat, hydrogeology, soil and terrain, vegetation, wildlife, and biodiversity.

An Environmental Impact Assessment (EIA) will be completed and submitted to AENV and the ERCB. Stakeholders are invited to contribute to the EIA Terms of Reference (TOR). Once the TOR have been finalized, results of the baseline studies will be used as appropriate for impact assessment.

Syncrude will continue to take a leadership role to ensure that any environmental concerns are minimized and/or mitigated in order to lessen impacts to the environment resulting from this project.

### 4.0 Community Information

Figure 3 provides Syncrude's proposed time line for this Project.

Syncrude will ensure that stakeholders are given the opportunity to comment on this project. Key opportunities for stakeholder involvement and comment are as follows:

- Project Disclosure/Announcement – July 2008
- Notice for the Proposed TOR for the EIA – July 2008
- Notice for Joint ERCB/AENV Application – September/October 2008

If you have any questions or require additional information please contact the following individuals:

Syncrude Canada Ltd.  
PO Bag 4023  
Fort McMurray, Alberta  
T9H 3H5

Fred Payne  
Senior Advisor, Regulatory and Environmental Affairs  
MD 3800  
(780) 790-6249  
payne.fred@syncrude.com

Alain Moore  
Team Leader, Public Affairs  
MD 1000  
(780) 790-6407  
moore.alain@syncrude.com

