

Notice

Government of Alberta ■
Environment

**NOTICE OF APPLICATIONS
SHELL CANADA LIMITED
QUEST CARBON CAPTURE AND STORAGE
RADWAY FIELD**

**ENERGY RESOURCES CONSERVATION BOARD
APPLICATIONS NO. 1689376, 1670112, AND 1671615**

**ALBERTA ENVIRONMENT
ENVIRONMENTAL PROTECTION AND ENHANCEMENT ACT
APPLICATIONS NO. 013-49587 AND 001-284507
ENVIRONMENTAL IMPACT ASSESSMENT**

The Energy Resources Conservation Board (ERCB/Board) has received Applications No. 1689376, 1670112, and 1671615 and Alberta Environment (AENV) has received *Environmental Protection and Enhancement Act (EPEA)* Applications No. 013-49587 and 001-284507 from Shell Canada Limited (Shell) for approval of the proposed Quest Carbon Capture and Storage Project (the Project). This notice is to advise interested parties that the applications are available for viewing and that the ERCB, AENV, and other government departments are now undertaking a review of the applications and associated environmental impact assessment (EIA).

Description of the Project

The Project would consist of carbon dioxide (CO₂) capture facilities, a pipeline to transport the CO₂ to a sequestration site, and a sequestration site for the injection of the CO₂ into an underground geological formation.

The facilities for the capture of CO₂ would be located at the existing Shell Scotford Upgrader located in Strathcona County at Legal Subdivision (LSD) 12, Section 32, Township 55, Range 21, West of the 4th Meridian, about 5 kilometres (km) north and east of Fort Saskatchewan, Alberta. The facilities would be designed to capture up to 1.2 million tonnes of CO₂ per year and would consist of three amine absorption towers, an amine regeneration unit, a multistage CO₂ compressor with coolers and separators, and a triethylene glycol dehydration unit.

A high vapour pressure (HVP) pipeline would be used to transport dense-phase CO₂ from the Scotford Upgrader to the sequestration site located north of the County of Thornhild. The pipeline would be about 80 km long with an outside diameter of 323.9 millimetres (mm). The route proposed for the pipeline would extend east-northeast towards Lamont County, traverse north-northwest across the North Saskatchewan River, and terminate about 8 km north of the County of Thornhild at LSD 15-29-60-21W4M.

The CO₂ injection wells that would be connected to the main HVP CO₂ pipeline by laterals, all expected to be less than 15 km long. The CO₂ would be injected through three to eight wells into the Basal Cambrian Sands, a deep saline geological formation, for permanent sequestration at a depth of about 2 km below ground level.

The infrastructure for the Project would be located in the following legal land locations, all located West of the 4th Meridian:

Section	Township	Range
<u>Scotford Upgrader and proposed CO₂ capture facilities</u>		
NE 31, NW 31, SW 31, NW 32	55	21
NW 4, NW 5, NE 5, SW 5, SE 6	56	21
<u>Main HVP CO₂ pipeline</u>		
NW 32, NE 32, NW 33	55	21
NW 15, NE 15, NW 16, NE 16, SW 17, NW 17, NE 17, SW 18, SE 18, SE 22, NE 22, SE 27, NE 27, SE 34, SW 35, SE 35, NE 35	56	20
SW 4, NW 4, SW 9, NW 9, NW 13, NE 13, SE 13, SW 14, NW 14, NE 14, SW 15, SE 15, SW 16, SE 16	56	21
SE 2, NE 2, SE 11, SW 12, NW 12, SW 13, NW 13, SW 24, NW 24, SE 25, NE 25, NW 25, SW 26, NE 35, NW 36	57	20
SE 2, NE 2, NW 2, SW 11, NW 11, SW 14, NW 14, SW 23, NW 23, SW 26, NW 26, SE 34, NE 34, NW 34, SW 35	58	20
<u>Main HVP CO₂ pipeline and injection wells</u>		
SW 2, NW 2, NE 3, NE 8, NE 9, NW 9, SE 10, NE 10, NW 10, SE 11, SE 17, NE 17, SE 19, SE 20, NE 20, SE 29, NE 29, SE 31, NE 31, NW 31, SE 32, SW 32	59	20
NE 6	60	20
NE 1, NW 35, NE 36, NW 36	59	21
SW 1, NW 1, NE 2, SE 11, NE 11, NW 11, SE 14, SW 14, NW 14, NE 15, NW 15, NE 16, SE 21, NE 21, SW 22, SE 28, SW 28, SE 29, NE 29	60	21

The Approved Sequestration Lease, illustrated in Figure 1, shows the carbon sequestration leases obtained from Alberta Energy in support of the Project.

Construction of facilities for the capture of CO₂ would begin in the third quarter of 2012 and pipeline construction would begin in the fourth quarter of 2013. The injection wells would be drilled between the second quarter of 2012 and could continue through to 2015. Commission and start-up of the operation is anticipated to begin in the first quarter of 2015. The Project is expected to be in operation for the life of the Scotford Upgrader, which is greater than 25 years.

In support of the Project, Shell has prepared and submitted the following:

- Application No. 1689376 to the ERCB, in accordance with Part 4 of the *Pipeline Act*, for a pipeline to transport dense-phase CO₂. The pipeline would run from the Shell Scotford Upgrader located at LSD 12-32-55-21W4M to a proposed injection well located at LSD 15-29-60-21W4M via a single high-vapour-pressure pipeline.
- Application No. 1670112 to the ERCB, pursuant to Section 39(1)(b) and (d) of the *Oil and Gas Conservation Act* and Unit 4.2 of *Directive 065: Resources Applications for Oil and Gas Reservoirs*, for an approval to dispose CO₂, a Class III fluid, into the Basal Cambrian Sands in the Radway Field.

- Application No. 1671615 to the ERCB, pursuant to Section 13 of the *Oil Sands Conservation Act*, to amend Approval No. 8522 to construct and operate facilities for the capture of CO₂.
- Application No. 013-49587 to AENV, in accordance with *EPEA*, to amend an existing approval for the Shell Scotford Upgrader to install three amine absorber towers, an amine regeneration unit, a multistage CO₂ compressor with coolers and separators, and a triethylene glycol dehydration unit, to capture a proposed 1.2 million tonnes of CO₂ per year from the three existing Scotford Upgrader hydrogen manufacturing units. Shell has also applied to increase nitrogen oxide limits from the hydrogen manufacturing units. AENV is also contemplating other administrative changes to the existing approval during the amendment process. The Shell Scotford Upgrader is currently located on the northeast, northwest, and southwest quarters of Section 31 and the northwest quarter of Section 32, Township 55, Range 21, West of the 4th Meridian; the southeast quarter of Section 6; the northwest, northeast, and southwest quarters of Section 5; and the northwest quarter Section 4, Township 56, Range 21, West of the 4th Meridian. The Shell Scotford Upgrader is located about 5 km north and east of Fort Saskatchewan, Alberta.
- Application No. 001-284507 to AENV, in accordance with *EPEA*, for an approval to construct 80 km of steel pipeline with an outside diameter of 323.9 mm in Townships 56-59, Range 20W4M and Townships 55, 56, 59, and 60, Range 21W4M. The proposed pipeline would transport HVP CO₂ from the Scotford Upgrader in the County of Strathcona to a series of proposed CO₂ injection wells located in the County of Thorhild. The proposed pipeline would require a 10 to 18 metre (m) right-of-way with 7 m of temporary workspace. Construction is scheduled to occur from the third quarter of 2012 and could continue through to 2015.
- An EIA report to AENV, in accordance with *EPEA*, for the sequestration component of the Project. Shell has also submitted a federal environmental assessment under the *Canadian Environmental Assessment Act*, which includes the capture, transportation, and sequestration components of the Project. The EIA report will be reviewed as a cooperative assessment under the *Canada-Alberta Agreement for Environmental Assessment Cooperation*. Alberta will be the lead party for the cooperative assessment. The EIA forms part of the application to the ERCB.

To obtain a copy of the applications, contact

Shell Canada Limited
400 – 4 Avenue SW
PO Box 100, Station M
Calgary, Alberta T2P 2H5
Attention: Kathy Penney
Telephone: 403-691-4542 or 1-800-250-4355
Fax: 403-691-4557
E-mail: quest-info@shell.com
Web site: www.shell.ca/quest

To view a copy of the applications, EIA, and supporting documents, contact

ERCB Information Services Suite 1000, 250 – 5 Street SW Calgary, Alberta T2P 0R4 Telephone: 403-297-8311 (Option 2) Viewing hours: 9:00 a.m. to 3:00 p.m.	Alberta Government Library Great West Life Building 6th Floor, 9920 – 108 Street Edmonton, Alberta T5K 2M4 Telephone: 780-427-5870 (toll free: 780-310-0000)
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Copies of the applications are also available for viewing at

City of Fort Saskatchewan City Hall 10005 – 102 Street Fort Saskatchewan, Alberta T8L 2C5 Telephone: 780-992-6228	Sturgeon County Centre 9613 – 100 Street Morinville, Alberta T8R 1L9 Telephone: 780-939-4321 (toll free: 1-866-939-9303)
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Thorhild County Office
801 – 1 Street
Box 10
Thorhild, Alberta T0A 3J0
Telephone: 780-398-3741
(toll free: 1-877-398-3777)

Strathcona County Library
401 Festival Lane
Sherwood Park, Alberta T8A 5P7
Telephone: 780-464-8111

Lamont County Administration Building
5303 – 50 Avenue
Lamont, Alberta T0B 2R0
Telephone: 780-895-7404
(toll free: 1-877-895-2233)

Strathcona County Heartland Hall
55305 Range Road 214
Fort Saskatchewan, Alberta T8L 4A4

Requirement to File a Submission for ERCB Applications No. 1689376, 1670112, and 1671615

If you have an interest in this matter, you are required to make a submission with respect to the Project even if you have previously filed a submission with the Board or with Shell on this Project.

If no submissions are received, the ERCB will continue to process and may approve the Project without further notice or without a hearing.

How to File a Submission for ERCB Applications No. 1689376, 1670112, and 1671615

Any party intending to make a submission with respect to the Project must file by 4:00 p.m., on or before the filing dates below.

September 19, 2011 Final date for submissions by all interested parties.

October 3, 2011 Final date for response submissions from applicant.

Send one copy of your submission to the applicant at the name and address above and one paper and one electronic copy (bookmarked and page-numbered in PDF format) to

Alanda Allum, Application Coordinator
 Applications Branch, Facilities Applications Group
 Energy Resources Conservation Board
 Suite 1000, 250 – 5 Street SW
 Calgary, Alberta T2P 0R4

Contents of a Submission

Submissions objecting to an application must indicate

- a) the right of the person that may be directly and adversely affected by a decision of the Board on the Project;
- b) the manner in which the right may be directly and adversely affected by a decision of the Board on the Project;
- c) the location of the land, residence, or activity of the person in relation to the location of the energy resource that is the subject of the Project; and
- d) the name, address in Alberta, telephone number, fax number, if any, and if available, an e-mail address of the person.

Compensation Issues

Submissions relating exclusively to compensation for land usage are not dealt with by the ERCB and should be referred to the Alberta Surface Rights Board.

How to File a Statement of Concern for AENV Applications No. 013-49587 and 001-284507

Under Section 73 of the *EPEA*, any person who may be directly affected by either of the *EPEA* applications may submit a written statement of concern. Statements of concern under the *EPEA* must be submitted by September 19, 2011. Please quote Application No. 013-49587 or 001-284507 when submitting a statement of concern. If no statements of concern are received, the *EPEA* applications may be approved without further notice. Failure to file a statement of concern may affect the right to file a Notice of Appeal with the Environmental Appeal Board. Please submit statements of concern to

Alberta Environment
 Regulatory Approvals Center
 9th Floor, Oxbridge Place
 9820 – 106 Street
 Edmonton, Alberta T5K 2J6
 Attention: Director, Northern Region
 Telephone: 780-427-6311
 Fax: 780-422-0154

Please note that the ERCB receives and reviews statements of concern.

Applications for Confidentiality

Under Section 13 of the *Energy Resources Conservation Board Rules of Practice (Rules of Practice)* and Section 35(1) of the *EPEA*, all documents filed in respect of these proceedings must be placed on the public record. However, any party may apply for confidentiality of information. For the ERCB, parties may file a request for confidentiality in accordance with

Section 13(2) of the *Rules of Practice* and serve a copy of such request on the other parties. For the purposes of AENV, such requests can be filed according to Section 35(4) of the *EPEA*.

Questions of Constitutional Law

Persons who intend to raise a question of constitutional law before the Board must file same within the time frames for submissions noted above. Submissions that place questions of constitutional law before the Board must comply with Section 25 of the *Rules of Practice* and Section 12 of the *Administrative Procedures and Jurisdiction Act*.

For information about ERCB procedures, contact

Applications Branch, Facilities Applications Group

Attention: Alanda Allum

Telephone: 403-297-8848

Fax: 403-297-4117

E-mail: alanda.allum@ercb.ca

Issued at Calgary, Alberta, on August 2, 2011.

ENERGY RESOURCES CONSERVATION BOARD

Patricia M. Johnston, Q.C., General Counsel

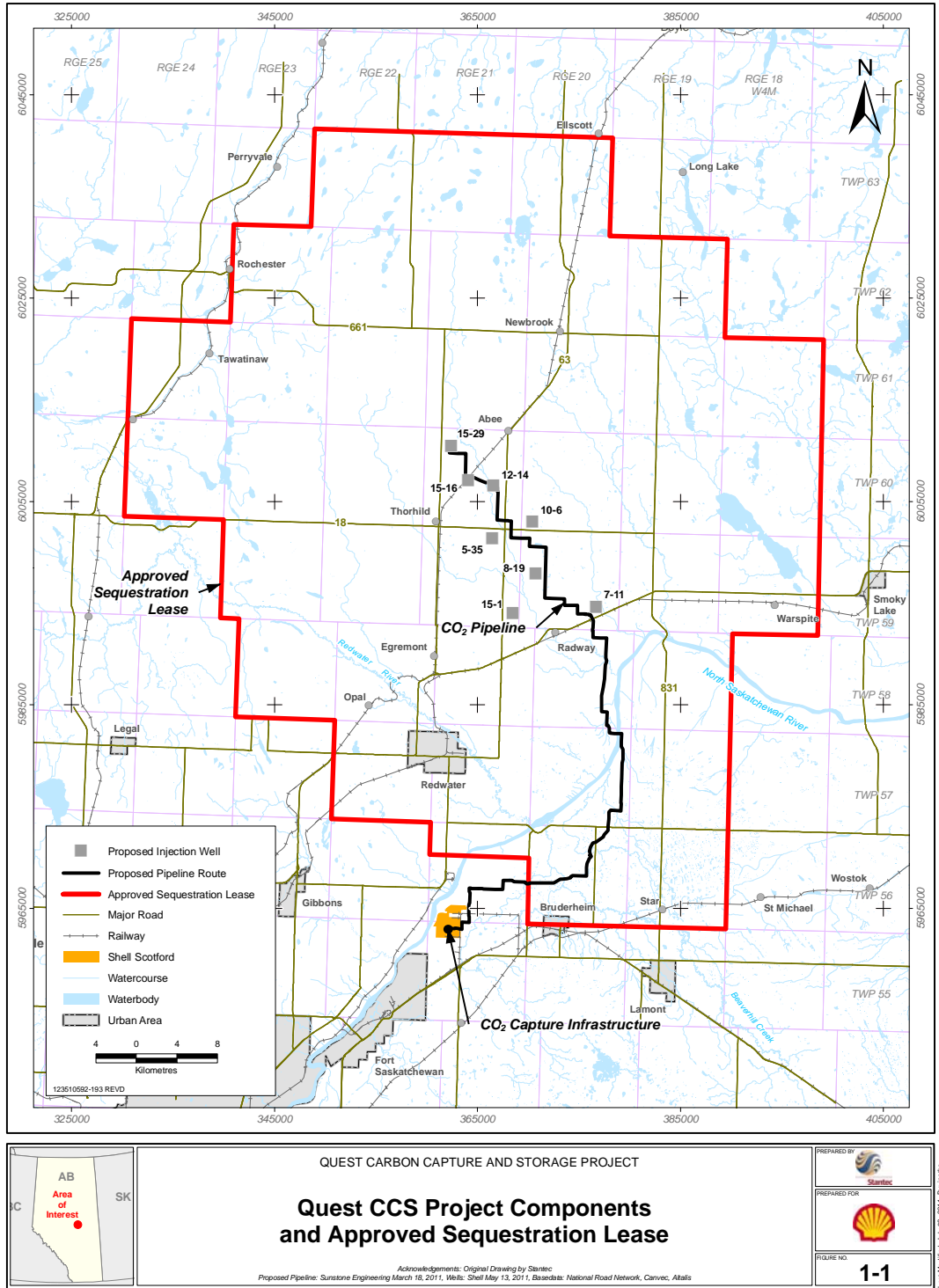


Figure 1. Map of the proposed Project