



**SECTION 1.0 – INTRODUCTION
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1.0 INTRODUCTION

The purpose of the KNOC BlackGold Expansion Project Environmental Impact Assessment (EIA) is to identify, evaluate and report the environmental and socio-economic effects of the proposed development both individually and in conjunction with other existing, approved and publicly disclosed projects in the area. The EIA has been prepared in accordance with the requirements prescribed under the Alberta *Environmental Protection and Enhancement Act* (EPEA) and the Final Terms of Reference (TOR) for the project ([Volume 3, Appendix A](#)). The EIA forms part of KNOC's application to the Alberta Energy and Utilities Board (EUB).

KNOC is requesting approval for construction and operation of an expansion of the in-situ thermal recovery (Steam Assisted Gravity Drainage or SAGD) project. Construction is anticipated to begin in 2013, and is projected to reach a bitumen production rate of 3 180 m³/day (20 000 b/d) by 2015. The estimated capital cost is \$540 million.

The project will be located in northeastern Alberta 10 km southeast of the community of Conklin, 150 km south of Fort McMurray and 150 km north of Lac La Biche.

The project is within the Central Mixedwood Region of the Boreal Forest. The Central Mixedwood is characterized by gentle topography consisting of flat and rolling upland areas, and flat lowlands with numerous shallow ponds and lakes. Ground moraine, hummocky moraine, glaciofluvial and organic terrain predominates on which a variety of brunisolic, gleysolic and organic (fen and bog) soils have developed.

Elevations within the Project Area range from 625 masl in the southwest to 550 masl in the northeast. Drainage reflects the topography with watercourses in the area, notably Sunday Creek and Birch Creek, which flow north to Christina Lake. The lake, in turn, is drained by the Jackfish River, a tributary to the Christina River which forms part of the Athabasca River drainage basin.

A complex vegetation pattern exists which includes jack pine with pure and mixed stands of trembling aspen and white spruce on uplands, and lowland areas with black spruce and sphagnum peat bogs. Fens with tamarack and bog birch, and open sedge areas are common. Riparian areas support balsam poplar, paper birch and willow.

Wildlife species are typical of the boreal forest region, including ungulates (e.g., moose and woodland caribou), carnivores (e.g., black bear, lynx, fisher), furbearers and small mammals, raptors, upland game birds, waterfowl, reptiles and amphibians.

Conventional oil and gas exploration and operations, hunting, fishing, off-road summer and winter vehicle use, and traditional land uses (e.g., berry picking, plant collection) represent the many uses of the local area. Communities distributed throughout the region are predominantly the home of Aboriginal peoples. There is no permanent occupancy of the project area.

The human population occupying the region between Lac La Biche and Fort McMurray is approximately 2 800 persons. The closest communities to the project (Hamlet of Conklin, Hamlet of Janvier [Chard] and Chipewyan Prairie Dene First Nation Reserve) account for approximately 1 150 persons. The major surface transportation link for these latter communities is Secondary Highway 881, with Highway 63 the principal route tying the region to other parts of Alberta. Highway 881 skirts the western boundary of the local study area (LSA). The railway line extending north to Lynton in the vicinity of Fort McMurray is operational for freight hauling purposes.

[Section 2.0](#) of the EIA provides an overview of the major elements of the project that may affect the environment; [Section 3.0](#) describes the scope and methods of assessment. The remaining [Sections 4.0](#) to [18.0](#) present detailed assessments on each of the environmental components set out in the TOR.