Sturgeon County’s Manufacturing Sector

The manufacturing sector provides employment to residents of Sturgeon County and is a key contributor to the overall economy. Growth in this sector is influenced by commodity prices, energy prices and domestic demand for goods and housing. There are 48 firms that make up Sturgeon County’s Advanced Manufacturing cluster. 58% are sole proprietorships and partnerships which include contracted workers, family members or business owners while 42% are local corporations. Manufacturing firms in Sturgeon County produce essential products and offer services that enable and support a variety of other industries – such as the oil sands, conventional oil and gas, construction and agriculture.
The Sturgeon Industrial Park is a 1,661 ha area located near the southern boundary of Sturgeon County’s portion of the Industrial Heartland. The Park area is bounded by Township Road 554 to the north, The CN railway that borders the North Saskatchewan River to the south, Highway 825 to the east and Range Road 230 to the west. Given its proximity to the Industrial Heartland, the Park is ideal for the development of commercial and light/medium industrial businesses, which can take advantage of the economic growth resulting from upgraders and other oil processing developments.

The Industrial Heartland located to the north of the Sturgeon Industrial Park is well positioned to become a world class industrial center focusing on petroleum, petrochemical and chemical processing. It is estimated billions of dollars in development will occur within a near to medium-term horizon. As a consequence, the demand for light and medium industrial land in the vicinity of the Industrial Heartland is also expected to increase. The majority of the land within the Sturgeon Industrial Park is zoned light/medium industrial.

Light industrial developments consist of businesses that sell products, provide services to companies and individuals, and undertake light manufacturing. These include, among others, equipment sales and repair businesses, industrial service providers, and small scale fabrication facilities. Medium industrial developments on the other hand include fabrication shops and other manufacturing based businesses.

The majority of the land within the Sturgeon Industrial Park area is presently used for agricultural purposes. A small portion of industrial development already exists, in the vicinity of Highway 825 and Township Road 552. This developed and established industry includes marketers, manufacturers and chemical plants.
Profiles of businesses within Sturgeon County

Sturgeon County continues to diversify across major industrial segments. The following businesses constitute our existing industry firms and those establishing themselves in Sturgeon Industrial Park.

Existing Industry Firms

**Agrium** is a leading global producer and marketer of agricultural nutrients and industrial products in both North America and Argentina. Their Redwater fertilizer occupies 372 hectares along the North Saskatchewan River. This operation is the largest fertilizer complex in North America; producing approximately 680,000 tonnes of ammonium phosphate and close to 1.4 million tonnes of nitrogen based nutrients.

**Access Pipeline** is owned by Devon ARL Canada and MEG Energy Corp., each with an undivided 50% working interest. Access has been formed to construct and operate the pipeline system assets. Diluent storage is based at the Sturgeon Terminal near Redwater, Alberta.

**Evonik Industries** manufactures and distributes hydrogen peroxide. The chemical is widely used in the pulp and mining industries and also has environmental applications. The Gibbons site is a key part of the Evonik Active Oxygens business.

The **CN Sturgeon County Support Yard** will be sized and developed over time to support growth in Alberta’s Industrial Heartland. The new five track Sturgeon Support Yard is located directly north of the highway 15 overpass. The yard will decrease the amount of truck traffic in the Industrial Heartland, resulting in fewer greenhouse gases, noise and air pollution as well as wear and tear on the region’s road system.

**Guardian Chemicals** is a privately owned Canadian company that researches, develops, and manufactures specialty chemicals. They provide direct sales, custom formulations, and specialized services to a large variety of primary and secondary industries throughout Canada, the USA, and worldwide in select markets.

**NSC Minerals Inc.** is a leading manufacturer and supplier of bulk and packaged rock salt. While the company’s core business is highway de-icing salt, it is also a major provider of salt to the feed and hide curing industry, and to industrial salt users.

**Momentive Specialty Chemicals** makes thermoset resins used by a wide range of industries including construction, transportation, electronics, automotive and others. Momentive Specialty Chemicals serves the global wood and industrial markets.
CB&I is one of the world’s largest construction and engineering firms of plate steel tanks and pressure vessels for storage. CB&I currently focuses on serving customers in the upstream oil & gas, downstream oil & gas, liquified natural gas, power, water and wastewater, and metals and mining markets.

Prospec Chemicals, the manufacturing division of Charles Tennant & Co. (Canada) Ltd. since 1984, is focused on producing mining chemicals such as thionocarboxamates and xanthogen formates.

RBS Bulk Systems specializes in dry and liquid bulk transportation solutions. They carry a broad range of products for customers in the oil and gas, mining, chemical and building products industries.

Bunge purchases soy beans, canola, flaxseed and specialty oilseeds from top growers, dealers and processes them into protein meal for domestic and export sales to the animal feed industry. Soy and canola oil are also sold as crude to major food manufacturers or refined by Bunge Oils.

Alberta Oats Milling Ltd. is a major processor and exporter of oat groats for human consumption as well as double and triple-cleaned oats for performance horses, including racehorses.

Dow AgroSciences Canada Inc. is a research based, agricultural sciences company with a diverse product portfolio including weed, insect and disease management for agricultural/horticultural crops and products for forestry and industrial vegetation management.

Proposed Industrial Projects

ClearStream Energy Services is a mid-sized oilfield services company serving conventional oil and gas and oil sands-related owner companies and their Energy Processing Companies. Across three business divisions, Industrial Services, Fabrication & Wear and Transportation, ClearStream builds, transports and provides services to help the energy and resource sectors move forward.

Project underway

ClearStream is constructing a $7 million project in the Sturgeon Industrial Park. The project components include a head office and a fabrication yard. ClearStream is expected to submit site plans this year, with the goal of having an operational facility in 2013.
North West Redwater Partnership is building an independent heavy oil upgrader with a total capacity of 231,000 bpd of blended feedstock (150,000 bpd of crude bitumen) over three phases. This facility will produce high quality Ultra Low Sulphur Diesel fuel and diluent, through the process of hydrocracking and hydrogen addition. It is expected that commissioning for the first phase of operations will commence in 2016.

**Project underway**
Recently, the Northwest Redwater Partnership received the approval needed for construction of phase one of the bitumen refinery in Alberta’s Industrial Heartland. Major site activity is expected to begin in the spring of 2013, and the facility is expected to be fully operational in 2016.

Magnum Cementing Services is an oil field servicing company that offers oil companies primary and remedial cementing service for oil wells.

**Project underway**
Magnum Cementing is in the process of constructing a $1 million facility that is expected to be completed by 2013. Magnum Cementing is in the process of submitting site plans for approval.

McAsphalt is a private owned development, production and distribution firm for asphalt products, related services and technology. McAsphalt offers a full range of engineered products such as conventional and performance graded asphalt, polymer-modified and rubber modified asphalt.

**Project underway**
The proposed site at Sturgeon Industrial Park is a $10 million asphalt blending facility. McAsphalt recently received a development permit for their asphalt blending facility. Site grading is underway and there are plans to start construction of the building in 2012.

Pembina Pipeline Corp. owns and operates crude oil and natural gas liquid (NGL) pipelines that extend across much of Alberta.

**Project underway**
Pembina Pipeline Corporation, formerly Provident Energy, received development permit approval for $45 million Ethylene Handling additions at their existing Sturgeon County facility. The proposed facilities will allow Pembina Pipeline to modify or add to its existing facilities with piping compression and drying equipment in order to facilitate the handling of ethylene.
Williams is one of the largest providers of energy infrastructure in North America. Their businesses are natural gas pipelines; midstream gathering and processing; natural gas and natural gas liquids transportation; and olefins production.

### Project underway

**Williams Boreal Pipeline**

Williams completed construction of the Boreal Pipeline in March 2012 and successfully commissioned the pipeline in May/June 2012. The pipeline is currently operational and Williams is completing final clean-up on portions of the right-of-way from the Fort McMurray area to the Redwater Fractionation and Storage Facility.

**Williams Propane Dehydrogenation Facility**

On July 19, 2012, Williams announced it was exploring building the first Propane Dehydrogenation Facility (PDH Facility) in Canada. At this point, Williams is investigating the different technology options for a facility of this nature. Once the technology is selected, Williams will pursue the engineering design and regulatory work required to obtain approval to construct and operate this facility. The estimated cost of the project is $600-800 million.

**Williams ROF De-ethanizer Project**

Williams commenced construction of the ROF (Redwater Olefins Facility) De-ethanizer Project in late June 2012, shortly after receiving approvals from the Energy Resources Conservation Board (ERCB) and Alberta Environment and Sustainable Resource Development (AESRD). Prior to this, Williams had received approval to construct and operate the Project from Sturgeon County. The Project is located at Pembina NGL Corporation's existing Redwater Fractionation and Storage Facility and will be in-service in Q3 2013. The estimated cost of the project is $200 million.

**Univar Canada** is the leading chemical distributor in Canada, providing more chemicals and related chemical distribution services than any other company in the marketplace.

### Project underway

Univar has recently acquired a development permit for a transload facility, with a $8.5 million capital cost that distributes dry bulk products such as methanol and caustic soda to refineries in Fort McMurray.
Site Specifications

This map highlights Natural Gas, Power, Water, Transportation and Hydrogen relative to possible locations for development.
This close-up map of Sturgeon Industrial Park highlights Natural Gas, Power, Water, Transportation and Development in the area.
This map shows land holdings in Alberta’s Industrial Heartland.
The high load corridor consists of designated highways which have had the overhead utility lines raised to accommodate loads of up to 9.0 metres high unless noted otherwise.
Site Specifications

Rail
As shown on the map, the Beamer Spur of CN's Vegreville Subdivision serves the existing heavy industries (Access Pipeline, Agrium, Degussa, Imperial Pipeline, and Provident Williams) as well as the W4/Sturgeon Industrial Park. To the west of the industrial area, CN's Coronado Subdivision rail line passes through Gibbons and Redwater on its way north.

Natural Gas
ATCO Gas Pipelines has a line that extends from the Alberta Oil Sands Pipeline through the proposed site, heading northwest. The current pressure of the natural gas line is estimated to be 700 psi.

Electricity
For industrial operations requiring large amounts of electricity, Sturgeon County currently has substations within the vicinity of the proposed site. In addition, a proposed substation will be situated west of the Suncor parcel with transmission lines extending through this area. The preferred transmission lines are Altalink 240kV and ATCO 500kV DC option.

Roads
The industrial area is served by provincial Highway 28, 38 and 37 which are connected to the rest of the provincial highway system. The County roads in the area range from Twp Rd 570 to Range Rd 224 (Opal Road) with a 9m paved top. These roads have no load bans or overhead wires. They are also built for wide loads.

Water
The existing Northeast Water Services Commission line runs northeast along the CN railway from Sturgeon Industrial Park to the Agrium fertilizer plant, near the turn of Hwy 643. At Hwy 643, the 300 mm diameter pipe downsizes to 250 mm and changes alignment to run north toward the Town of Redwater along Hwy 38. Plans for a 300mm water line project have been initiated, with survey and land acquisition underway. This line originates from the NWSC pump station, running north on Rge Rd 224 and then east on Twp Rd 570 and then north on Juniper Drive to the Redwater reservoir.

Waste Water
There is an existing wastewater collection pipeline, constructed by Sturgeon County, that originates at the Agrium site as a 300 mm diameter force main and increases to 500 mm at Twp Rd 560. Agrium is the only user of this pipeline, which is used to discharge some of its contaminated storm water runoff. The pipeline has been designed to accommodate additional flows.

Storm Water Management
The Sturgeon County AIH area encompasses a number of distinct sub-basins, the majority of which form a dominant watercourse discharging into the North Saskatchewan River. There are also a number of catchment areas that exhibit overland flow and do not have defined drainage channels. All existing watercourses are stable and research to date does not reveal historic drainage problems.
Emergency Services
Alberta Health Services provides ambulance services to the Sturgeon County region. Many companies who operate industrial facilities within Alberta’s Industrial Heartland are members of Northeast Region Community Awareness Emergency Response (NR CAER). NR CAER provides the combined resources of industry, municipal, and other resources for emergencies requiring mutual aid intervention. It also ensures that the emergency response plans of its members are compatible and offers mutual aid response training to members. Through NR CAER, all municipal partners of Alberta’s Industrial Heartland have access to a central dispatch located in Sherwood Park.

Site Specifications

Rural District (source Sturgeon County Land-use Bylaw)
http://www.sturgeoncounty.ab.ca/DOCUMENTS/LandUseBylaw/tabid/462/Default.aspx

1. Purpose
The purpose of this district is to provide for agricultural and rural-related services, storage, repair, processing and minor manufacturing uses on isolated sites requiring minimal servicing, to serve primarily rural residents.

2. Permitted Uses
Agricultural industrial use
Extensive agricultural use
Extensive livestock
General industrial use
Greenhouse / plant nursery
Market garden
Protective and emergency services
Sod farm
Temporary storage
Warehousing

3. Discretionary Uses
Accessory buildings and use
Explosives Storage and Distribution (only on Part SE 21-54-27 W4 as per Bylaw 1102/06)
Industrial storage (excluding noxious uses)
Gas processing plant
Kennels, boarding and breeding use
Public use
Recreational use
Secondary commercial use
Surveillance suite
4. Regulations
   a. Minimum parcel size: that is suitable to accommodate the use, but not less than 0.2 ha (0.5 acres).
   b. Setbacks: minimum front, rear and side yard – 6 m (20 ft.)
   c. Site coverage: 50 percent for the principal and accessory buildings.
   d. Development permits for proposed rural industrial development, outside established Business Industrial Parks, shall not be approved unless the Development Approving Authority is satisfied that:
      i. there is a need for the proposed rural industrial development and it cannot be accommodated in a nearby Business Industrial Park;
      ii. there is adequate legal and physical access to appropriate transportation facilities;
      iii. there will be no significant negative impacts on the road systems and traffic generation;
      iv. the site is suitable for on-site sewage disposal and water supply;
      v. there would be no substantial conflicts with existing adjacent land uses;
      vi. the site should avoid, to the extent possible, locating on better agricultural lands;
      vii. consideration for on-site hazards and other environmental issues has been taken; and
      viii. any other factors, which the Development Approving Authority may consider necessary, have been met.
   e. No subdivision shall be allowed and no development permit shall be issued for a proposed rural industrial use where it would result in more than two (2) rural industrial lots in one quarter section, unless Council has first redesignated such lots to the Business Industrial District.
   f. No operation or activity shall emit air and water contaminants in excess of the standards prescribed by the Province of Alberta pursuant to the Environmental Protection and Enhancement Act.
   g. Surveillance suites shall comply with the provisions of Section 6.19. One surveillance suite may be permitted per industrial parcel.
   h. The siting of isolated rural industrial development shall comply with the Municipal Development Plan policies.

5. Additional Regulations
   Permitted and discretionary land uses shall adhere to Part 6.0: General Regulations.

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