A TOUCH OF GREEN IN THE SHADOWS OF "DIRTY OIL"

An aerial view of the site, just next to Highway 63.

Fort McMurray opening new eco-industrial park

by Renato Gandia
Illustration and photos courtesy of Wood Buffalo Housing and Development Corporation

Amidst the noise of "dirty oil" optics associated with the oilsands industry, there's a green revolution slowly catching fire right at its heart—even Fort McMurray can be green and environmentally friendly.

Later this year, the municipality's first eco-industrial park will be finished and in operation.

"We want it to be as green as possible," said Bryan Lutes, president of the Wood Buffalo Housing and Development Corporation (WBHDC), developers of the new TaigaNova industrial park.

Taiga comes from a Mongolian word meaning "boreal forest," the main feature of the Athabasca region. Nova is a Latin word that means "new" but also "novel" and "stellar."

"We hope that the message would be that the city of Fort McMurray is not a dirty place, notwithstanding the history, the record or appearance of the oilsands overall," Lutes says.

Jenny Rustemeyer, marketing coordinator for project manager Eco-Industrial Solutions, says while it is important for all regions in Canada to have a development like this, it's a must for a place like Fort McMurray because of its reputation.

"I think a lot of people [in Fort McMurray] do care about sustainability, and it's reflected in the community."

Over the last number of years, the oilsands industry has become the target of criticism by the world's environmentalists, with the City of Fort McMurray at its heart. The image is often of a place where money is made at the detriment of the pristine boreal forest, fresh water, and the vanishing aboriginal way of life. And although the citizens and some companies operating in the area are true-blue environmentally friendly, they struggle to shake off the image that comes with being associated with the tar-like bitumen found underneath the boreal forest.

For instance, in early spring officials with the federal and provincial governments were lobbying hard against the spectre of California—with a population larger than all of Canada's—shutting its doors to Alberta crude.

So while Alberta fought and continues to fight the negative perceptions of the industry, officials with the Regional Municipality of Wood Buffalo (RMWB), are developing TaigaNova. The primary goal was to alleviate an acute shortage of

A SLICE OF TAIGANOVA ECO-INDUSTRIAL PARK

On the ground at the TaigaNova site.

LOCATION
On Highway 63, just north of Fort McMurray, Alberta

LOTS
27

CONSTRUCTION COMPLETION
Target of October 2009

GREEN FEATURES

- Through zoning and sales, businesses are directed to consider symbiotic opportunities
- Non-potable water supply from adjacent waste water treatment plant
- Increased pedestrian movement
- Site layout analysis for optimum energy efficiency, enhancing building plans
- Ecological stormwater management

SOURCE: ECO-INDUSTRIAL SOLUTIONS

industrial sites in the area, but now there are also the side benefits of an eco-friendly approach.

The park is being constructed along Highway 63, about seven minutes north of the city. It spans about 32 hectares, with 27 lots—four zones as highway commercial, 23 as business industrial—with sizes ranging from 0.34 hectares to 1.97 hectares. As it stands, about a dozen out of the 27 lots have buyers.

"It's intended to help local small businessmen build and expand within the community," said Lutes. "What we're trying to do in this construction is tackle some green initiatives that have not been tackled before in Fort McMurray.... We're also encouraging business owners to develop any symbiotic relationships they can amongst each other."

Right from the get-go, the municipal bylaw allowing development of the site had strong environmental tenor, which became the seedbed of the eco-friendly approach.

For example, the bylaw specified the use of bioswales as part of its stormwater system. Traditionally, stormwater is controlled with curbs and gutters. This industrial park will use bioswales in combination with a pond.

Bioswales are landscape elements designed to remove silt and pollution from surface runoff water. The design consists of a swaled drainage course with gently sloped (a little less than six per cent) sides, filled with vegetation, compost, or a riprap. The water's flow path is designed to maximize the time water stays in the swale, which helps in trapping pollutants and silt. Bioswales are commonly constructed around parking lots, where a substantial amount of automotive pollution is collected by the paving and flushed by rain.

With bioswales integrated in the TaigaNova design, developers say strain on the sewer system will be lessened when snow melts. This also requires less piping because of the ground-level stormwater system. And greywater re-use, to reduce industrial water consumption, will be a norm for businesses.

The pond itself will function more as a tool to control stormwater. It will be a public site and wildlife habitat. Near it, walking and cycling trails will be constructed, a feature that will give people working in the park a green space to relax during their breaks.

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Last May, TaigaNova awarded a contract with Alpha Construction to build a custom-designed circular sanitary lift station. The circular design means it will use less aggregate, concrete, and rebar compared to a traditional lift station. The station will serve three different developments along Highway 63, which developers say could mean significant savings over the life of the structure.

Developers also tout the construction of narrower roads in the whole eco-park. These roads will use less asphalt, and therefore less oil.

There is a planned solar lighting system, and buildings will be efficient, using up to 25 per cent less energy than the Model National Energy Code of Canada. For companies located in the park, those energy savings will translate directly into cash savings in their operational budgets.

Even the machinery used to build the park has a green component, because some of the equipment is being powered by biodiesel or a biodiesel blend. Developers admit that there is debate about whether the production of biodiesel actually outweighs the use of conventional diesel, but they're hopeful that using it positively impacts the environment in the long run.

Experts say businesses with green buildings such as those encouraged in TaigaNova stand to save money on energy and water costs, while maintaining better employee retention and higher property values.

Tracy Casavant, president of Eco-Industrial Solutions, said that designing to build and operate sustainably doesn't necessarily have to be more expensive than the conventional approach.

"We're seeing innovative companies in conventional industries coming in and proving that benefiting the economy and the environment are not mutually exclusive," she said.

Rustemeyer is quick to point out one more unique feature of the project.

"While there are other eco-industrial parks in Canada, TaigaNova is the only such park that's conventionally financed," she said.

The owners didn't get any government funding to develop the site.

TaigaNova may be just a small spec of green initiative amidst the vast oilsands landscape, but there's no telling it may influence future development in the area. OSR