Rail: Exploring a sustainable option

It's been 175 years since industrious brewer John Molson financed Canada's first railway, so it's quite fitting that industry is helping give way to what some call the "second Golden Age of Rail".

The Champlain and St. Lawrence Railroad, which launched in June 1836, was originally set up for Molson freight trains to deliver supplies to the brewer.

The addition of the railway in British North America helped foster the age of rail according to Bruce Burrows, vice president of public and corporate affairs for the Railway Association of Canada (RAC).

"By the 1880's we were into what was euphemistically called the golden age of railroad, which lasted up until the end of the Second World War," say Bur-

But in light of the industrial boom associated with the war and the viability of commercial airlines, Canadians turned towards personal automobiles for short-distance travel and planes for longer voyages.

"For about 50 years we became a slack growth industry," says Burrows.

All aboard!

As consumerism boomed and companies grew, the demand for moving products efficiently increased.

Two thirds of Canada's Rail traffic moves trans-border and overseas trade. By 2005, trade with the East was put-

ting pressure on the Asia-Pacific Gateway and through osmosis, the ports of British Columbia.

"It hit the ports by surprise," says Burrows. And it wasn't just the import business.

"There's been quite a change in distribution patterns," he notes. "With the likes of Walmart, Canadian Tire, The Bay, etc... switching to the bigger distribution centers and the smaller ones close."

"It's hard for us to compete with the short haul (truck business)," he says. "With larger distribution centers there's been tremendous growth for domestic commodity (hauls)."

"It's almost back to 1920."

Shipping sustainably

When it comes to the trains themselves, advancements have made energy conservation a much smaller part of the equation.

"Trains are more efficient then trucks," says Burrows. "We can move a freight 170 km on a litre of fuel."

And in a country where trans tion accounts for 27 percent of greenhouse gas output, trains don't seem to be as much of the problem.

"We're moving about 75 percent (of products per year) and only contribute three percent," says Burrows.

According to the RAC, rail moves over 70 million passengers a year and one train, on average, moves the same tonnage of freight as 275 big trucks.

"Congestion in our cities along popular corridors-that's driven new interest in rail," he says. "Ditch the car, take

But Burrows says the resurgence in rail also has to do with its trans-border capabilities.

"There's no other mode of transportation that has the same amount of security that rail has," he says, pointing out that since trains are fixed to the track it makes cross-border trips a lot more efficient.

New technology such as gamma scanners and built-in product manifests, make crossing the U.S. border faster.

"Our market share has grown 45 percent to 60 percent going south," he says. "We've invested a lot in the system."

Futuristic trains

Freight trains have reached new lengths from 10,000 to 14,000 feet. These new trains have ditched the caboose and employ locomotives in several, if not all cars.

"You get more bang for your buck if you spread them out," Burrows adds.

And on the passenger side VIA Rail

is working on a billion dollar upgrade campaign. They're also setting up double track systems to help reduce congestion.

"(Trains) are 60 percent circuitry now-it's a moving computer essentially."

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Water affects all organisms, but it is not an infinite resource. Initiatives are in place to use less water, and to protect the province's natural gems.

Sustaining the flow

HOW WE MADE IT

British Columbia is ahead of the fold when it comes to water conservation efforts, but the changing ethics of water sustainability suggest a new approach across industry and society as a whole is needed.

"Over a period of time the biggest realization has been that water is not infinite-there's a finite amount and certainly a finite amount of good quality water," says John Allan, vice president of sustainable development at Goldcorp and an environmental scientist with 28 years of experience. "On the other side of that equation the number of potential uses and the number of potential users is rising."

Allan says for Goldcorp, the basis for conservation has been in looking for more sustainable sources via recycling and reusing as well as looking for deep sources that have lessened effects on local communities water tables.

"With something like water—which everybody has a stake in—making sure

people understand the amount of water

you're withdrawing, where you're ta-

king that water from, and what you're doing with it, just takes away any potential conflict," says Allan.

The buddy system

PROFILE

Like Allan points out, water is a resource that concerns everyone-and everything—on the planet.

Organizations such as the Partnership for Water Sustainability in BC (PWSBC) help to drive the conversation on sustainable water use by major indu-

Kim Stephens, executive director of PWSBC, points out that for major indu-

Incorporated in November 2010,

the Partnership is an autonomous

non-profit society. The Partnership

had its genesis in the Water Sustaina-

bility Committee of the BC Water and

Waste Association. The Partnership

is helping the Province implement the

Living Water Smart and Green Com-

through shared responsibility in de-

livering the Water Sustainability Ac-

tion Plan. Because the Partnership

is the hub for a 'convening for action'

munities initiatives. We are doing that

stry, decisions are often driven by the economics of the situation.

"Raising water rates provides an incentive to use less water," says Stephens. But Stephens is optimistic that part-

nerships and collaboration between industry, government and local communities/indigenous groups will help build a more sustainable approach to water use. Robert Sandford, EPCOR Chair of the

Canadian Partnership Initiative in support of United Nations "Water for Life" Decade, an author and a champion of water ethics, would even go as far as to say that government's ability to impact

network in the local government set-

ting, we are positioned to facilitate

alignment of regional and local ac-

tions with provincial goals. We pri-

marily work in the local government

context, with a focus on community

and regional planning systems, to in-

fluence uptake of strategies that will

conservation of land with water sus-

integrate decisions about use and

tainability outcomes. The guiding

philosophy is "design with

nature".

water ethics is diminished when com-

pared to the role of the general public. "It's important now that we realize that water policy and effective improvement of the way we manage water is not merely a government strategy anymore-it has to be a broader societal commitment which includes the average citizen who has an interest in what's happening in his or her watershed," says Sandford. "It has to include all of those people who are impacting water by the virtue of their activities, starting first with agriculture and then moving into the industrial and resource development sectors as well."

Going with the flow

He definitely agrees BC is progressive when it comes to water sustainability but like Allan and Stephens point out, there's more work to be done.

But it has to start somewhere, and as Stephens adds, BC seems to be fostering a new water ethic across the country.

"(In general) new ideas and new approaches tend to originate in BC and Alberta, and then flow east."

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