



TAKING THE HIGH ROAD

Where the Fraser River meets the Pacific Ocean lies Richmond, British Columbia. Located just south of Vancouver, this low-lying community encompasses 17 islands and sits an average of just one meter above sea level. With such flat contours, and a high water table, dikes surround all the major islands to prevent high-tide flooding.

Given the setting, any landfill must be built and managed with great care — and such is

the case with the privately owned Richmond Landfill, run by Ecowaste Industries Inc., a subsidiary of Graymont Limited. Opened in 1986, the landfill accepts construction and demolition waste products, including wood, concrete, roofing, plastics, and insulation. It also accepts soils for cover material, composts clean yard waste, and recycles ferrous and non-ferrous metals as well as gypsum wallboard. The landfill is open both to contractors and the general public.

PURCHASING A JOINT DECISION

Brian Larochelle, Operations Foreman, Jim Pope, another Operations Foreman, and Tom Land, General Manager, get together and make equipment purchase decisions with the assistance of the equipment operators. When it came time to replace their old Cat® loader, they created a spreadsheet and listed all the factors

After enough green material has been collected and ground, the Kawasaki moves the shredded material over to windrows in the composting area.



they wanted to consider: comfort, maneuverability, engine compartment accessibility, visibility, best overall functions, salesman knowledge, and more. Then they put out the call to Cat, Deere, Volvo, Komatsu, Liebherr, and Kawasaki that they were looking for a used machine with less than 3,000 hours, under three years old, and within a certain price range. They spent several days with each machine, and the equipment operators had their input too. They rated each factor on a scale of one to

10. After they tallied the scores, Kawasaki emerged as the clear winner.

"We were disappointed with all the others," recalls Brian. "One brought out a brand new machine, another brought one over seven years old with over 10,000 hours, another didn't even show. And then Charles Kemp, with Douglas Lake Equipment, showed up with a 90ZV-2. He had the best presentation, and the Kawasaki got the highest ratings from our inspection. Everyone was impressed.

"So we purchased the machine in May 2010, and the guys love it — it's so much easier to run than the Cat. It's like driving a Cadillac instead of a Hyundai. It's a wonderful ride; we're very happy with it.

"When you go to pick up concrete, you can pick up 5-6 yards of it and it doesn't rock," adds Brian. "Our Cat would rock on us. We also had our Cat dealer move the grease fittings from the top to the bottom of the cylinders because we kept getting them crushed when we were loading bins."

Although the company bought the Kawasaki 90ZV-2 to work the area open to the general public, it is also used to move the green materials they've run through a grinder over to the compost area.

MORE THAN A LANDFILL

The landfill is an engineered facility built to accept the construction and demolition waste stream while protecting the environment. These environmental protection features include a bottom liner, leachate collection and treatment system, and landfill-gas collection system. To call the facility just a landfill does an injustice to the wide scope of activities taking place on their 460 acres.

"We have a 45-mil liner that runs about six to seven meters underground, and we're allowed to fill 17 meters high," explains Brian. "We have a leachate system that takes all the water collected from the landfill and runs it through an engineered marsh and an aeration treatment pond. An irrigation system

is used to deliver leachate to two wood lots — one is a willow plantation and the other grows poplar trees."

Run by a small crew of 15, sometimes over 300 trucks a day come through their gates, yet the site is safe and clean. Cameras monitor the property. The grass is mowed. Any methane generated by the landfill is captured and combusted to reduce greenhouse gas emissions. And, there's no smell — not even the nearby golf course and neighboring cranberry grower have voiced complaints. It's apparent that shortcuts and sloppy engineering are simply not tolerated at this landfill.

In order to meet government mandates to reduce the amount of materials put into landfills, Ecowaste is pursuing a number of avenues. Clean green materials are composted onsite, and are used to cover closed areas of the landfill as well as sold to outside companies. Demolition materials are recycled whenever possible, and buried only when no other options are available. Drywall,

steel, non-ferrous metal and concrete are recycled or sold to salvagers. Ecowaste is also looking into a program to grind scrap wood brought in and sell it as a fuel in the developing biomass market.

Ecowaste leases part of their acreage to other companies too. The services their tenants provide include bioremediation of contaminated soil, soil manufacturing from wastewater treatment plant biosolids, and wood grinding.

So, with all the recycling/sales of the various products Ecowaste handles on site, what is their most profitable item?

"Tipping fees," says Brian. "Our disposal rates are the lowest in the lower mainland, so a lot of people come here. We offer volume discounts, we have lots of room, and Richmond residential customers can even bring their clean green in for free."

Ecowaste Industries Inc., is serviced by Douglas Lake Equipment, Langley, British Columbia.

The 90ZV-2 is used to push-up materials dropped off by the general public. The blacktop keeps things cleaner for customers, but does pose challenges for the loader since the hard surface can turn common objects into tire killers. Ecowaste has outfitted their bucket with a bolt-on cutting edge, rather than a rubberized edge, because they found it difficult to pick up concrete, and it reduced the bucket's penetration power.



Ecowaste trucks are loaded by the 90ZV-2. The trucks then haul materials away from the public areas and deeper back into the property for additional processing.

