

Harvesting profits: B.C. leads the way

Chris Godsall believes he has seen the future of forestry, and it involves uniting B.C.'s logging heritage with cutting-edge underwater technology.

"My job was to marry the two," says Godsall, founder and president of Victoria-based Triton Logging. "It wasn't a marriage of love," he adds. "It was an arranged marriage."

Triton is currently harvesting trees from the bed of B.C.'s Nechako Reservoir, which was flooded by Alcan in the 1950s to power the Kitimat smelter, and Godsall aims to take his technology global. Triton has completed planning work for a project in Missouri and recently submitted a report to Forestry Tasmania.

Godsall comes to underwater logging from the forestry side. He was working for a log salvage company in 2000 when he had a brainstorm: rig a chainsaw to a remotely operated submarine. He pitched the idea to his employers, who told him he was crazy. So he started his own company.

Godsall isn't the first B.C. entrepreneur to dream of reaping the bounty of the world's flooded forests. At about the same time that he founded Triton, Vernon's Aquatic Cellulose was trumpeting an agreement to log the floor of a reservoir behind Brazil's Tucuruí dam. Founder Gary Ackles touted the environmental benefits of harvesting the world's lake bottoms instead of its living forests, citing the US\$650 million in rare hardwoods waiting to be scooped from the floor of the Brazilian reservoir. Although his company had yet to earn a dime, he was

quoted in the *Vancouver Sun* at the time claiming that Aquatic Cellulose would be profitable within a year, and that thanks to the world's nearly endless supply of underwater lumber, the company would one day have billions of dollars in timber reserves. It didn't take long for the dream to get axed. The log salvaging operation went bust in 2003 and today Aquatic Cellulose is a shell company trading on the Over-the-Counter Bulletin Board exchange at less than a penny a share.

Godsall believes the breakthrough that will distinguish Triton from previous failed ventures is the use of airbags as a relatively cheap way of raising cut logs to the water's surface. Underwater trees sink when cut, and previous salvage ventures used the same machine that cut the trees to deliver them to the surface. It would never be economical to have a multimillion-dollar submarine spend most of its day ferrying logs to the surface, Godsall concluded.

Triton didn't have to reinvent the wheel: underwater saws are commonplace in underwater log salvaging, and airbags are often used to float sunken ships. The key to Godsall's venture was to unite the two in a remotely operated submarine. And for that, he found a deep pool of expertise.

This province has a worldwide reputation for know-how in submersible systems, thanks to pioneers such as Phil Nuytten, principal owner of North Vancouver's Nuytco and its sister company Can-Dive Construction. Godsall also points to such outfits as

OceanWorks International Corp., another North Vancouver company that supplies commercial and military clients around the world with diving systems and underwater tools. And on Triton's home turf, International Submarine Engineering Ltd. in Victoria has built more than 200 undersea vehicles and 300 robotic manipulators. In nearby Sydney, the Institute of Ocean Sciences has its own underwater vehicle dedicated to researching B.C. waters. "Our greatest attribute was our ability to attract amazing people from the marine technology sector and the forestry

chainsaw capable of felling an underwater tree in three minutes. Thanks to a payload of 50 airbags, it can harvest that many trees before resurfacing.

The technology doesn't come cheap: a Sawfish costs anywhere from \$600,000 to \$3 million depending on horsepower and the types of trees to be harvested.

Godsall estimates that five billion board feet of high-quality timber are waiting to be harvested from B.C. lakes.

Triton's biggest project to date has been at Ootsa Lake in northern B.C., where the company has been salvaging



sector in British Columbia," Godsall recalls. "Many of these people became investors in Triton and became employees with Triton."

He points to the example of Norm Keevil, third-generation namesake of the founder of mining giant Teck Cominco. The UBC engineering grad was an early investor in Triton, and today oversees systems development for Triton as VP of engineering. Currently, Triton owns one Sawfish submarine and has two second-generation models in production. The latest model carries a 54-inch

trees from the bottom of the reservoir created when Alcan built the Kenny dam in the 1950s to power its Kitimat smelter. Godsall expects to harvest 4,500 underwater trees this year.

Triton has provided consulting services in the U.S. and in Tasmania, but has never operated Sawfish outside of B.C. Godsall sees 2006 as the company's breakthrough year. It recently raised \$5 million in private equity, and he expects Triton to break into the black by year-end.

— David Jordan