

Engineers plan new approach
The Vancouver Sun August 25, 2000

Scott Simpson - Appreciating the value of an urban stream is becoming increasingly important. The alternative is the continued obliteration of small waterways so vital to aquatic life.

If you want to understand how far municipalities have evolved in recent years when it comes to stormwater management, look no further than the engineering department. Civic engineers, traditionally, have considered stormwater the enemy of property and threat to human life, and looked at streams primarily as conduits that get the water safely away.

In the Strait of Georgia over the last century that philosophy has been disastrous for salmon streams.

In the last four years, however, the people working in this pragmatic of all civil service professions have begun talking like, well, like New Age environmentalists.

Urged on by the Greater Vancouver regional district and senior government agencies involved with streams and fish, engineering departments are reappraising their roles and helping ensure that community values are incorporated into stormwater management plans.

That means managing streams so that environmental, recreational, aesthetic, heritage and fisheries values are considered, along with traditional objectives like protection from flooding,

"You have to look at it from a holistic perspective," says Fred Nenninger, an engineer who is program manager for the GVRD's liquid waste management plan.

"Considering the stream is just as important as the rest of the infrastructure -- the streams are going to be just as important as the roads and all the other utilities."

In Surrey, as far back as the 1980s, municipal engineers were designing containment ponds to capture water and allow it to seep slowly back into streams to maintain a more steady water flow.

Many other municipalities around the region have yet to achieve Surrey's environmental sophistication -- but that doesn't mean Surrey is waiting for them to catch up.

As you read this, the city's engineering department, working in collaboration with the University of B.C., a developer, a residents' group and about 70 other stakeholders, is hashing out a suburban prototype for the 21st century -- B.C.'s first environmentally sustainable community.

A major feature of the project, to be developed in the 225-hectare East Clayton area, is stormwater management.

That means minimizing the use of blacktop, eliminating curbs and gutters in favour of shoulders and swales that allow stormwater to gently percolate into the ground instead of being ushered into local streams.

In a neat twist on convention, the plan calls for water to be pumped down into wells, so it can escape and recharge underground aquifers.

It also means the elimination of conventional paved streetscapes in favor of back lanes, and installation of perforated piped that allow water to gradually escape into the local water table instead of being directed into a stream.

Will it work?

Progressive Construction, the major landowner in East Clayton, says the jury is still out. Steve Kurrein, general manager of residential development for Progressive, notes there is a strong market for housing in Surrey.

He cited rapid sales of building lots at Clover Ridge, a joint subdivision venture between Progressive and some builders.

Clover Ridge will be built according to conventional standards -- with attached garages, driveways and a main roadway with sidewalks, curbs and gutters. At the recent opening of lot sales, builders scooped up 90 lots in two hours.

But Kurrien is not convinced builders and buyers will be as receptive to the East Clayton concept.

"The challenge is making the sustainable development concept work in the marketplace," Kurrein said. "I think it's fair to say we're nervous."

One of the problems, he says, is satisfying both the sustainability objectives and the builders who actually purchase the properties and put homes on them.

The next problem will be finding buyers willing to invest in the concept.