

WHEN THE ENVIRONMENT MEANS BUSINESS

by Deborah Greaves

Maintaining **eco-sustainability** amidst exploding growth means more jobs for professional earth stewards in the Central Okanagan and beyond.



Shannon Heights in December 2005, one of the Westside's many new subdivisions. Much of the development on semi-rural areas directly affects wildlife and watercourses.

Community assets. Natural capital. When reading the term "community assets", many people may imagine infrastructure, like roads, bridges, community centres and places to shop. The term "natural capital" may seem more obscure. To professional people in the natural resources field, community assets are important and increasingly scarce. Natural capital includes water-filtering wetlands, community forests, significant geological landmarks and value-enhancing parkland. It also includes lakes, ponds and streams for fishing, recreation, and drinking water.

Some assets that may be thought of as natural capital cannot be purchased or replaced. In order to manage, preserve, even rehabilitate what remains, the science professionals are called in.

A surge of human activity throughout the B.C. Interior and Okanagan Valley – part of a North America-wide trend – has resulted in much physical upheaval in the region. This activity has resulted in a surge in demand for the services of some of the more than one thousand registered professional biologists working in the province, as well as plant, habitat and range ecologists, geologists, agriculturalists, forestry consultants, geographic information systems (GIS) specialists, hydrologists, pedologists – otherwise known as soil scientists – geotechnical engineers and environmental educators. As more data is compiled, the interconnectivity of ecosystems both above and below the ground is more thoroughly understood and that old science quote is repeatedly proven out: "For every action there is an equal and opposite reaction."

In recent years, there is more pressure on municipalities to manage environmental impacts.

Much of the current burden now carried by local governments has been downloaded from provincial government.

"Basically, the provincial government has said 'Here are the rules, now you do the work,'" Ron Mattiussi, director of planning and corporate services for the City of Kelowna said.

Thus, cities and regional districts are adding more scientists and information managers such as GIS experts to their roster of planning professionals and offering public education in order to minimize the long-term impacts of the recent building boom. This means more salaried positions for well-educated environmental planners, habitat techni-

PHOTO BY DEBORAH GREAVES

cians and information officers, and numerous investigative projects contracted out to private consultants.

The work of inventorying fish, wildlife and sensitive habitat, performing geo-technical surveys and studying the effects of disturbance on local ecosystems is labour-intensive. Whether carried out by federal, provincial or municipal governments or by private development firms, it takes a tremendous investment of expertise, time and money.

Some registered professional biologists and other environmental specialists operate small independent consulting firms. Some are employed by large firms such as EBA Engineering, Summit Environmental Services and Golder & Associates. Other large employers are all levels of government, including municipalities – the current frontline of environmental survey and analysis.

The Regional District of the Central Okanagan, a sprawling and diverse jurisdiction that includes Ellison, lands above Peachland and the Westside, has invested in hiring environmental coordinator Todd Cashin and environmental technologist Brent Magnan. The City of Kelowna, led by division head Mark Watt, has a team of five working in its environmental division – three full-time and two part-time. Environment technician Fred Schaad works with policy and developments, while Corey Davis is regional air quality coordinator. Michelle Kam, Danielle Drieschner and Tracy Guidi are watershed coordinators, in charge of providing public education about natural assets within the city boundaries. Mattiussi estimates that the City of Kelowna spends approximately a quarter of a million dollars a year on salaried environmental positions and advice – a modest sum in comparison to most other city expenditures.

The development community makes significant investments in environmental studies. Since the local and provincial governments



Aquatic biologist Heather Larratt (right) at work. "The good thing is that rehabilitation is feasible."

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– Natural resources scientist Jillian Tamblyn

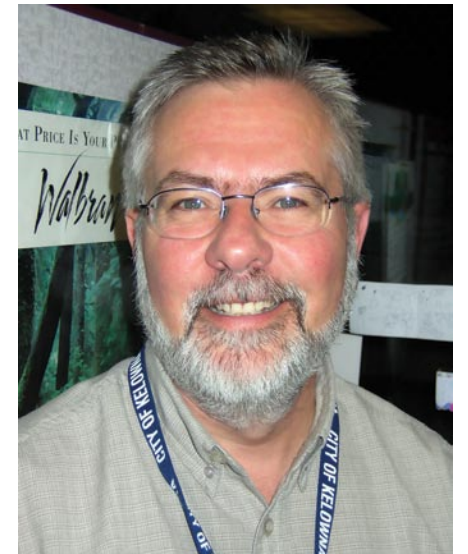
require protection of watercourses, riparian areas and sensitive terrestrial ecosystems, the onus is often on the developers of land to carry out detailed environmental studies on their properties in order to meet government requirements. To meet this obligation, they too utilize the services of consulting firms and invest thousands of dollars.

Meanwhile, assisted by a healthy economy and low interest rates, new homes and buildings continue to spring up. Cities and regional districts wrestle with the inevitable disturbance to the natural capital within their boundaries – often the same visually appealing natural features that first drew people to the area.

City of Kelowna environmental technician Fred Schaad delivers environmental information to the development community. With a view to any natural hazards and the environmental impacts that development of the subject property may cause, Schaad reviews zoning, as well as all permits that are required for areas to be developed. He meets with developers and their agents or consultants to ensure completeness of – and compliance with – environmental assessments, including engineered drawings, landscape plans, wildfire mitigation, visual impact assessments, and other information related to their applications.

It's up to technicians like Schaad to provide proponents and development approval staff with clear understanding of environmental regulation and policy – a tall order in these times of rapid growth.

At the Regional District of the Central Okanagan, environmental technologist Brent Magnan and environmental coordinator Todd Cashin are assisted by additional habitat technicians on a project-by-project basis, and call upon other natural resources professionals when needed.



Fred Schaad, environmental technician for the City of Kelowna: "The budget for the work we do is about what the city would spend on a few months of snow removal."

"In the Southern Interior, and particularly the Okanagan," Magnan said in December, "local governments are increasingly requiring the advice of environmental professionals. In part, this advice is needed due to new government policies regarding the environment, as well as the concern expressed more often by the public."

One of the many challenges of the current real estate surge is the fact that market studies

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“Whether or not I agree with a certain development, I know I can help maintain some of the natural integrity in the area to some degree, so there is still some natural ecological function.”

– biologist Kyle Hawes of Kelowna

KELOWNA: How green is the city?

“The City of Kelowna Environment Division recognizes the need for protection and enhancement of natural areas, and is aware that a healthy environment positively impacts the quality of life enjoyed by Kelowna’s 105,000 residents,” stated Central Okanagan watershed coordinator Danielle Drieschner in December, 2005. Education is a key factor in reducing environmental impacts in the near future, so the city is directing information to its citizens.

“Since 1997, the Environment Division has facilitated an extensive environmental education program including watershed and airshed health, pollution prevention, living greener, and alternatives to pesticides,” Drieschner explained.

“This education is delivered through classroom and field presentations, environmental events such as the Mayor’s Environmental Expo, media, Living Greener Calendar and workshops. Each year over 3500 students alone are educated regarding local environmental issues, and the Environment Division coordinates environmentally focused community events such as the Mayor’s Environmental Expo, B.C. Rivers and Fisheries Awareness Festival, and Family Environment Day. Family Environment Day and B.C. Rivers Day are planned in conjunction with the RDCO Parks Department.”

The investment in these outreach programs doesn’t stop there. To address watershed health in the urban environment, the City of Kelowna’s Environment Division also implemented a Watershed Stewardship Program in 1996 which currently consists of three components: restoration and enhancement, stewardship, and events and education. Similar programs exist in other Okanagan jurisdictions.

don’t reveal some of the unexpressed preferences people may have for the kind of neighbourhoods they would like most to live in.

“That’s partly because we haven’t built those neighbourhoods yet,” consulting ecologist Kristi Iverson has said. A former chair of the B.C. Grasslands Council, Iverson feels that there needs to be “a real shift in how we think about development.”

Natural resources scientist Jillian Tamblyn said in December,

“Personally, I’m sometimes concerned that people forget that a healthy economy is dependent on a healthy environment. When people move or visit here, they appreciate finding clean water, and an environment that has retained its natural beauty. It’s important that we maintain healthy, functioning ecosystems which will support both wildlife and people.”

Heather Larratt is a registered professional biologist, specializing in managing natural reservoirs such as ponds and lakes – and the reclamation of mine water. Through her work as an independent, Larratt Aquatic Consulting, she makes a good living. Although environmental specialists often toil towards reclaiming damaged areas in frustrating circumstances, Larratt finds great satisfaction in much of her work.

“Given the political will to do it, the good thing is that rehabilitation is feasible,” Larratt said last month. “Techniques developed by the mining community are often offered to municipalities, which can save millions of dollars in research. Highland Valley Copper spends several million dollars each year on reclamation of its mine site near Logan Lake.”

Reclamation and mitigation are words frequently heard around committee tables and in planning sessions, as is rehabilitation. In today’s economic world of advanced engineering for large-scale developments, mitigation – an effort to do the least damage possible to the natural surroundings – may be abandoned in favour of reclamation or rehabilitation, which attempts to replace or recreate natural ecosystems similar to those that existed on the site prior to installation of services and subsequent development.

It is the rehabilitation side of his work that aquatic biologist Kyle Hawes of Kelowna savours. “Whether or not I agree with a certain development, I know I can help maintain some of the natural integrity in the area to



Biologist Kyle Hawes – cautiously optimistic about public understanding of impacts.

some degree, so there is still some natural ecological function.”

Now a private consultant as principal of Ecoscape Environmental Consultants, Hawes said in December he’s cautiously optimistic about changes occurring in public understanding of their own impacts on their surroundings. He feels that the research-based work recently done for planners, such as stream habitat and sensitive ecosystem inventories and mapping for Bellevue and Mill Creeks, has provided valuable information to planners for governments at all levels and municipal politicians.

“I’m encouraged by the slowly increasing level of environmental consciousness. The amendments to the Official Community Plans are helping, and the sophistication of municipality staff. It’s education, education – that’s why kids are our future. People need to understand their human footprint. That footprint is determined by many things we chose to do, such as the size of houses we live in, the vehicles we drive.”

Denis Davis, chair of the Environmental Advisory Committee for the Regional District of the Central Okanagan and Director of the B.C. chapter of the Canadian Water Resources Association, agrees that activity in the environmental field is growing.

“The primary driver is the pressure on the resource,” Davis said recently. “Communities have to find ways to protect what’s important, and to protect natural assets, you need information. Groundwater, for example, is hidden but vital. You need geotechnical people and geohydrologists to understand how it relates; multidisciplinary teams are needed to assemble the information.”

Davis said that where there are environmentally sensitive areas – and the Okanagan Valley has many – both developers and municipalities must take responsibility for protection of the natural assets, “as those assets are a selling point – for the properties and the community.”

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