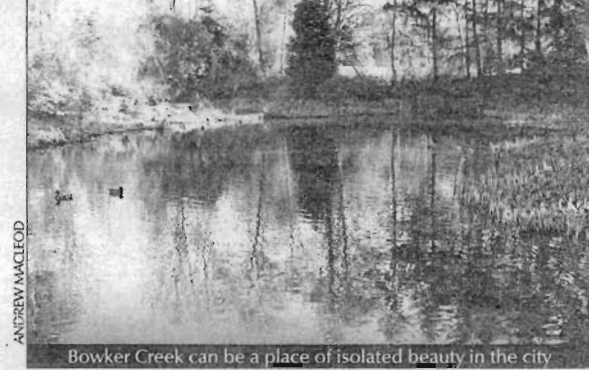


Green Water Rising

Take a journey down Bowker Creek, where environmental vision runs into gritty urban reality

By ANDREW MacLEOD



Bowker Creek can be a place of isolated beauty in the city

On the pond behind the University of Victoria's faculty club, mallard ducks float peacefully in the shade. Cattails stretch above the glassy waters at one end while rhododendrons and other introduced species dot the shore. Beside a concrete patio, where it's easy to imagine academics in tweed and turtlenecks gabbing over glasses of wine, a gentle gurgling announces the presence of Bowker Creek.

"They easily could have put this all in a pipe," says Ian Graeme, standing by the creek one day in February. Graeme is one of the founders of the Friends of Bowker Creek Society, and the organization's president. Having agreed to give me a tour of the creek by bicycle, he's dressed for the occasion in a blue bike helmet and an orange reflective vest. From UVic, the creek winds some eight kilometres through neighbourhoods in Saanich, Victoria and Oak Bay before emptying into the ocean at the south end of Willows Beach.

There was a time, a century ago, when Bowker was home to at least two salmon runs; people trapped muskrats on its banks. The biggest waterway in the region, locals once nicknamed it "the Thames", but it was later renamed after John Sylvester Bowker (the "bow" is pronounced like what you'd tie in a shoelace), whose Oak Bay farm bordered the creek back in the 1860s.

Today, all but 2.5 kilometres of Bowker Creek is confined to culverts, hidden beneath the region's roads and malls. The water and creek bed are polluted; for generations nobody has found a fish in its waters above the culvert closest to the ocean.

But now a decade-old effort to reclaim the creek is slowly gaining momentum. Four years ago Saanich, Victoria and Oak Bay agreed to a management plan for the watershed. At least two of the municipalities identify the creek in their "greenways" strategies, making it a priority for protection and path building. Bowker Creek is now a consideration—or at least a point of contention—when plans are made for properties like Richmond School that neighbour the waterway.

Already numerous small changes have been made along the creek. They include alterations to how water runs off UVic's parking lots, natural repairs to banks in several places to reduce erosion, planting native vegetation at the Royal Jubilee Hospital and widening the creek bed near St. Patrick's school on Trent Street. And there are bigger changes coming, many of which will take decades to complete.

Much of the credit for the ongoing rebirth of Bowker goes to Graeme. A forester by training, he spent his 20s and early 30s on the north coast and the Queen Charlotte Islands

exploring pristine watersheds. When he moved back to Victoria some 15 years ago, he found a home in an area just north of the Royal Jubilee Hospital near the creek. Soon, says Graeme, he realized "nobody's stewarding this resource." So he took it on. "It just seemed sort of natural to bring those watershed principles back and apply them in the urban setting."

John Luton, the executive director of the Capital Bike and Walk Society, says simply, "It's good to have a champion looking out for that creek."

"I'm always so taken when people like Ian Graeme see things that nobody else sees and the possibilities out of this polluted—at the time—covered up, buried creek," says NDP Victoria MP Denise Savoie. As a city councillor for Victoria until her shift to Ottawa in 2005, Savoie found ways to support his work. "He got me excited about the possibilities," she says, adding that he was "almost too patient" with the glacial pace of municipal decision making. "I think he should be up for sainthood or something."

"It's not just me," says Graeme. "There are lots of people who have been working on it for years." They're working on Bowker, he points out, but also on other watersheds in the region and the province. "There are lots of heroes out there."

Paved paradise

Before Bowker even leaves the campus it bubbles through blackberry brambles into its first culvert, a metre-wide cylinder of concrete. From the top of nearby Mount Tolmie, where we pause on our bike trip to catch our breath, Graeme points out the low-lying land along McKenzie Avenue and Shelbourne Street where the creek once would have flowed. A century ago the area was taken over by farmers who destroyed the creek's natural course and pushed it into ditches, he explains. Later, as subdivisions and malls sprouted, the creek was put into pipes and buried underground.

Countless creatures lost habitat, though Graeme says bats have now colonized at least some of the culverts. Following the water course became impossible for average people out for a stroll, though he says the occasional urban explorer still crawls through the pipes.

After a quick ride downhill from Mount Tolmie, Graeme pauses at the corner of Cedar Hill Cross Road and Shelbourne. "There's a creek under here," he says. It's hard to believe, given the parking lots, cars and generic architecture dominating the landscape. "Right now it's that '60s-'70s style of development," Graeme says. Imagine it with a creek bubbling through, the sound of running water audible from a pathway. "You've got a mountain in the background. You just need that creek and a greenways connection . . . [There's] lots of potential here to build a complete, livable space."

It's possible, of course, to free creeks and larger waterways from culverts, but it can be expensive. Locally, parts of Cecelia Creek in the Gorge area were opened in the late '90s. With so much of Bowker underground, however, a number of sections would be likely candidates for what's known as "daylighting".

"Daylighting is a pretty positive option," says Tanis Douglas, the Bowker Creek Initiative coordinator, a part-time position the three creek-sharing municipalities fund. There is a master drainage plan working its way through approvals, to be released within the next few weeks. When it comes out, it will look at how to improve what happens to the region's storm water and it will likely recommend opening sections of Bowker that are now buried—especially at places that Douglas says flood "way too often", like Fireman's Park near the Oak Bay fire hall and Trent Street near the Royal Jubilee Hospital.

"There've been documented problems in both those spots in the last 10 or 20 years," Douglas explains. "The infra-



Ian Graeme dips his fingers into one part of Bowker Creek

structure is not up to par." The need to do something will likely grow as global warming continues. While it is hard to make predictions, some estimates say the amount of rain falling in Victoria will increase by 50 percent. "With climate change we're going to need bigger pipes," says Douglas. But depending on the size of the project, it may become practical to daylight the creek instead. "Once you get to a certain point it's cheaper to put in an open channel."

Garbage in, garbage out

It's not until Browning Park, off of Shelbourne and a couple blocks north of North Dairy, that Bowker Creek makes its escape from the pipes. Where it does, two bags of garbage lie abandoned in the brush on top of the culvert, deposited there despite the municipal garbage can available nearby. A couple metres beyond where the creek spills into the light, the water parts around a car battery with a fraying Petro Canada label. When I climb down to fish the battery out, I see a condom hanging from a branch.

There's no doubt Bowker is an urban creek, where shopping carts and other city debris get dumped. In 2004, when Herbert Craig Reid stabbed Robert Makehun Wesley during a drunken party late at night on the grounds of St. Patrick's Elementary School, the murder weapon got tossed in the creek. (Majencio Camaso—another victim of urban violence—"stumbled" across the creek in his last moments before Saanich police officers shot him on the grounds of Richmond Elementary in 2004.)

But most of what's in the creek is harder to see. Bowker is the main route for storm water to find its way off roofs and roads and out to the ocean. Over 1,000 hectares, including golf courses and parking lots, drain into Bowker. "It's probably fairly typical of an urban system," says Graeme. True, it doesn't have as much industrial activity as other watersheds in the region, but it still picks up a great deal of pollution. There are high levels of fecal coliform in the creek, especially during the summer when the flows are lower; some comes from household sewers that still connect with the creek, some from the manure people spread on their gardens. Run-off brings oil and other chemicals from our streets into the creek. Heavy metals like cadmium and lead concentrate in its bed. At the top of the watershed, the creek has tested high for copper and



Ophelia of the culvert or just some floating garbage?

ANDREW MACLEOD

BENJAMIN MOORE

BENJAMIN MOORE

zinc in the past.

When I ask Graeme if he'd ever go barefoot in Bowker, he shakes his head. "No," he says. "There are a lot of objects in the water, as well as the water quality."

But in Browning Park, you get your first sense of what the creek might one day be. The creek bed is unnaturally straight for a stretch, but at least it is open. Willows and other trees line the bank. The municipality has stopped mowing the grass to the creek edge, allowing a more natural riparian zone several metres wide to establish.

Two boys are playing by the creek in the park. They play there often, they tell Graeme, when he approaches them. Sometimes they've found crayfish. Asked why they like playing there, one of them says, "I don't know. We just do."

Graeme recalls that when he was a kid growing up in Victoria, Bowker was already degraded, but he remembers playing in other creeks and streams. "You can still do that in lots of B.C.," he says. "But why shouldn't you be able to do that—if it's truly healthy—in the future? Why should you have to drive 20 miles for your kids to have that experience?"

Too much pavement, too much water

Not far away, at North Dairy Road near Hillside Centre, the creek runs through an area where the bed has been sealed in concrete, creating an unnaturally flat sluice way. Where it enters another culvert, access to the creek has been blocked with a chest-high chain link fence. Graeme says the fence sends a clear but unfortunate message: Keep out.

Across the street, the mall itself is a key property for improving Bowker's health. "They're a problem landowner from our perspective," says Douglas, the Bowker Creek Initiative coordinator. The company that owns Hillside Centre—Toronto-based 20 Vic Management Inc.—is talking about redeveloping the site over the next few years. Says Douglas, "I'm hoping they'll take it a step forward."

Right now, she says, the mall is the largest impervious area in the watershed. Water hits the mall's large roofs and parking lots and flows uninterrupted into the creek.

Imperviousness is closely related to watershed health, Douglas says. When a watershed hits 10 percent imperviousness you start to see problems; at 35 percent, fish don't usually survive. The Bowker watershed, overall, is about 50 percent impervious. That's better than Cecelia Creek's watershed, which is over 60 percent impervious, but it's still not good enough to keep the creek healthy.

When there's too much pavement, too little water is absorbed by the earth before it runs into the creek. The result is an unusually "flashy" creek where the water level can rise quickly. But there are things—besides restoring more natural areas to soak up rain water—that property owners can do to slow it down. Hillside Centre's owners are planning to expand the mall, add new stores, change the pattern of roads and boulevards, and eventually add some homes to the site. Douglas says they are considering adding green roofs, where plants will help absorb some of the water, and pervious pavement. It's possible, she says, to add underground storage—large cisterns that would trap water during heavy rains and let it out later in a more leisurely way.

"Something like storage at Hillside mall could be really important," says Douglas. An area that's been part of the problem could become an asset. The mall owners have been receptive to talking about what might be done, she says, adding she's hopeful they'll make decisions that are positive for the watershed.

Of course some landowners aren't so receptive to doing things differently. Somewhere near where North Dairy meets Doncaster Road, beneath where Graeme and I pedal our bikes, a Bowker tributary brings water off the Cedar Hill Golf Course into the main creek. The join is made in a Y of pipes deep under the road. From there it flows under the Oaklands neighbourhood, back under Shelbourne and along Townley into the Richmond Elementary School grounds.

The school is now up for sale, and Graeme and others

would like the school board to take the opportunity to do something positive for Bowker before they sell. But so far the public agency has refused to consider the creek in its deliberations. In a September, 2006, letter to a Saanich planner, school board secretary-treasurer George Ambeault writes, "Please be advised that we will not consider rezoning this property as parkland, as rezoning our property as proposed would decrease the asset value for the school district." The city was welcome, however, to make an offer to buy the grounds.

Urban planners: What's the plan?

Saanich wasn't actually talking about rezoning the property, though a municipal report "indicates a community interest in the area as future park. It also provides a framework within which future acquisition, through some means, is considered." The report, a Local Area Plan for the Shelbourne area, picks out the school along with five other properties that are important for creating a greenway and restoring the creek. The plan came to a Saanich council meeting in March, and there was a public hearing on it April 17.

"George [Ambeault] likes nothing encumbered, but it is public land," says Saanich councillor Judy Brownoff. "It's a key piece of land." Once those pieces of land are identified, she adds, communities can take steps to protect them. Over at Colquitz Creek, for instance, back in the 1960s a city engineer had a vision for a corridor running along the creek. Whenever properties in the corridor were sold, Saanich bought them, carved off what was needed for public use then sold the rest. "Over time you got all the connections happening," says Brownoff, whose own property backs on Colquitz. Colquitz is now, 40 years after the initial vision was articulated, within a couple properties of being completed.

"It's a lot more expensive now," she says, but it's worth doing. "These types of corridors are so important to the health of a community. You get to have a sense of a healthy area, a healthy environment."

The other areas identified in Saanich's plan include a series of properties in the municipality's panhandle, jutting down between Victoria and Oak Bay. One is on an undeveloped BC Hydro property east of Richmond Road that is used as a de facto park, but may one day be home to a power substation. Another is a triangle of land near the Royal Jubilee hospital.

In recent years the Jubilee has done a number of things to improve how water leaves its property, which Graeme points out.

Allan Murphy, the parking manager for VIHA, says when the agency was planning the cancer centre, which is near the creek, he had to look up "riparian" in the

dictionary to find out the word referred to things that are beside a stream. "It was a total education for all of us in VIHA," he says. "It really hit a chord with me at the time. I didn't really understand when they were talking about roofs being part of the storm water system just like a parking lot is."

As the project developed, the planners added an interlocking brick surface to the parking lot, which allows the water to penetrate below the lot into layers of rock. Instead of hitting a sealed surface and running straight into the creek, contributing to flash floods, the water seeps slowly away. A rock pool near the hospital's helicopter landing pad collects water to slow it down further.

"We wanted to retain the water. [We were] trying to get away from the older ways of doing things," Murphy says. "We just thought it was an opportunity and the pricing was very comparable. Everyone felt at the time this was the way to go."

Before the project the creek was muddy in the winter and dry in the summer. Parts of it were full of compost that had been dumped there. "You see the after and it's quite an improvement," Murphy says. The hospital added native plants to the creek's banks. "I've walked the creek quite a few times. It's been very calming." And that's nice for the patients in the new cancer centre too, he says. "They have something a little better or natural to look at, instead of the way it was."

Murphy, who has worked for VIHA for 25 years, says he and the other employees who were involved in the project are proud of what they did. "At least when we leave, we have a little tiny legacy with some of these nice projects we're doing," he says. He makes time on his holiday to call me about it, and acknowledges, "I have excitement in my voice."

Bridge to the future

Beyond the hospital, Graeme and I come to St. Patrick's Elementary School, owned by the Catholic Diocese of Victoria. Some work has been done on the creek here, where diggers were used to widen the bed and native plantings were added to the banks. A fence keeps students and others back from the creek, but a bridge provides an interesting viewpoint.

At the time the work was being done, MP Savoie was a Victoria councillor sitting on the CRD board. Work was needed to prevent flooding in the area, she recalls, so it made sense to work on the creek at the same time. "It struck me we always have money for engineering services," she says. "It seemed at the time these devious ways of getting things done were the only ways."

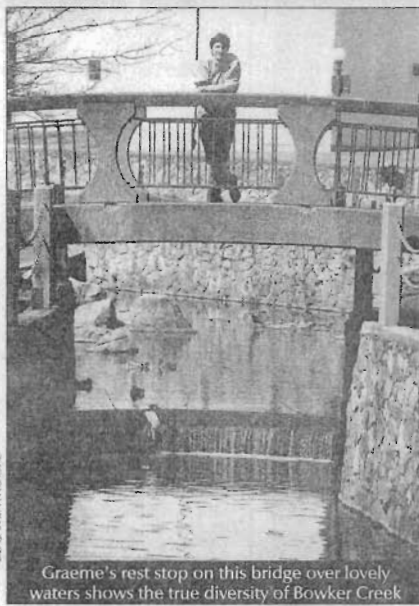
As sections get reclaimed, she says, there will be more appetite to do more work. "I believe it can happen, but it will be over a very long time," Savoie says. "It seems when we bury this kind of natural environment we're destroying our own life source. We're destroying the environmental services a creek like that provides. . . . Now it behooves us to begin to restore some of the damage."

St. Patrick's is at the start of another stretch where it becomes possible to see what the creek may be one day. Parts are in rough shape, but you can see how the sections will link up to form a path or greenway. Across Foul Bay Road, after passing the dead aluminum tree outside Eugene's restaurant—local sculptor Illarion Gallant's *The Bowker*



ANDREW WATKINSON

In some areas, diggers were used to unnaturally widen Bowker's banks



BENJAMIN MOORE

Graeme's rest stop on this bridge over lovely waters shows the true diversity of Bowker Creek

Accord, a nod to the waterway's current state—the creek enters a concrete canyon that's at least open to the air. It is kept to a ditch alongside the parking lot at the Oak Bay Recreation Centre, where giving up a few spots for cars would make plenty of room for a winding creek and a path. Then it's through an overgrown, fenced-off section by the Oak Bay High School athletic fields before it bursts into a couple blocks of park. It's here that Oak Bay High students will stage the 10th annual rubber duck race to raise awareness and funding for the creek on May 12.

John Luton says he likes what Oak Bay has done with this section of Bowker. At Hampshire Road, for instance, there's a crossing between two sections of the park. "You've got a fairly safe and appealing crossing, I think that's the sort of thing that could be done elsewhere along the corridor," he says.



BENJAMIN MOORE

Adding benches and other things will make people want to take their time by the creek, he says, and as it becomes more appealing people will have more interest in spending the money and effort to restore it. "If it's just a ditch, people are going to keep on walking."

Bowker then dives back into a culvert to pass under Monterey Road and Fireman's Park. At Monteith, as we get close to the ocean, it winds past an allotment garden where a crew of volunteers recently spent a day strengthening the banks.

Bowker's Oak Bay stretch shows the true potential of a creek in the city

Minimizing damage, maximizing hope

"It's been a long time since it's been a really healthy stream," says Douglas. "Right now it's essentially a ditch for most of its length . . . Sometimes I shake my head at the condition the creek's in and how far it has to go."

Still, there are many reasons for bringing back the creek and she's ultimately optimistic. "It's all about the people in

the end," she says. "It's an awareness raising exercise. People want to fix the creek in their own backyard. It's about people's understanding of nature and how that can be shifted."

Bowker is a test case, she says, that will determine how plans are made for other urban creeks in the region. In the past, municipalities managed the creek to minimize the amount of space it took up, thereby maximizing the amount of space available for building. As values change, Douglas says, we can make different decisions. "I think there's lots of hope for the creek," she says. By changing how we do development, there are numerous ways to help the creek become healthier. "It's just a matter of political will. It's easy for councils to pay lip service. When it comes down to dollars it's hard to make radical changes."

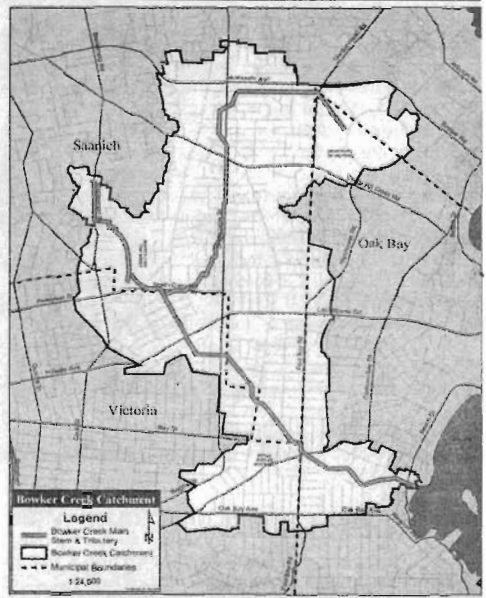
It can take a long time to build consensus on what to do with even a small 30 metre stretch of creek, she says. But whatever the politics swirling around Bowker, however it's managed, water keeps flowing from the university to the sea, reminding us what it needs to do. Says Douglas, "The creek carries on doing its thing while us humans are in knots about these minute issues."

At Beach Drive, not far from Glenlyon-Norfolk private elementary school, Graeme and I hop over a low wall to follow Bowker past a condominium building, across a lawn and down to the creek's mouth. Dark comes early in February, and there's a chill in the air as we stand on the beach looking across the bay at Mary Tod Island. The Lekwungen people used to call the island "Kohweechella", which translates as "where there are many fish", a name testifying to the once nutrient-rich waters.

In October, 2003, a coho salmon arrived in this part of the creek. It died short of the first culvert, flopping around in water that had travelled a tortured path through culverts and ditches from UVic—but it was a reminder that if the stream improves, salmon and other fish may well return.

"It's flowing right through the heart of our city," says Graeme. If the creek is polluted, it shows we aren't creating a healthy, sustainable city, he says. "What are the communities that we want to have in the future?"

In the past 100 years we've contained and polluted Bowker Creek. Now, says Graeme, we need to look 100 years into the future and think about what we want the creek, the watershed and the city to be like. Then we need to make the decisions to get us there. M



The Browning Park stretch of the creek is less than idyllic

A. DREW/CICLED