SPRING 2003

Watershed connections

Welcome

to the third issue of *Watershed Connections*, a volunteer publication for the Tod Creek watershed, distributed in February, June and October each year.

The purpose of *Watershed Connections* is to connect the community and provide information that will assist watershed residents to live and work in an ecologically sustainable manner, in harmony with the watershed environment.

Watershed Connections is produced by members of the "Friends of Tod Creek Watershed" stewardship group, with articles contributed by watershed residents.

A PDF version is available for people living outside the watershed.

We invite comments and submissions from members of the community. Please contact us at 479-1956 or email wconnections @shaw.ca

This third issue of *Watershed Connections* examines streams in the Tod Creek Watershed. We are only just beginning to understand the value and importance of streams. In the past, streams have been polluted, straightened, filled, cleared of streamside vegetation, diverted into culverts, and even used for garbage disposal. The streams in our watershed are no exception. Since they are not as severely impacted as urban streams we still have the opportunity to restore them. Cecilia Creek, a creek running through an industrial area of Victoria, is being restored by a group of concerned businesses and individuals. The restoration of Tod Creek is certainly less challenging than Cecilia Creek.

Tod Creek flows into Tod Inlet which opens into Saanich Inlet. It was once a salmon bearing stream. For many years, several dedicated groups and individuals have led in the effort to restore Tod Creek into salmon habitat *(see page 8)*.

On page 2, Mary Haig-Brown describes Wray Creek, a small creek that flows into Tod Creek. It is typical of other creeks in the area. It is hoped that Mary's article will inspire landowners living along creeks to meet and plan ways to protect and enhance watercourses that pass through their land. Protection and restoration projects are great opportunities for neighbours to work together for a worthwhile community project.

Streams are also important to groundwater. As most of us are dependent on wells, it is in our best interests to protect all watercourses. The next issue of *Watershed Connections* will contain information on groundwater protection.

Protection and restoration projects are great opportunities for neighbours to work together.

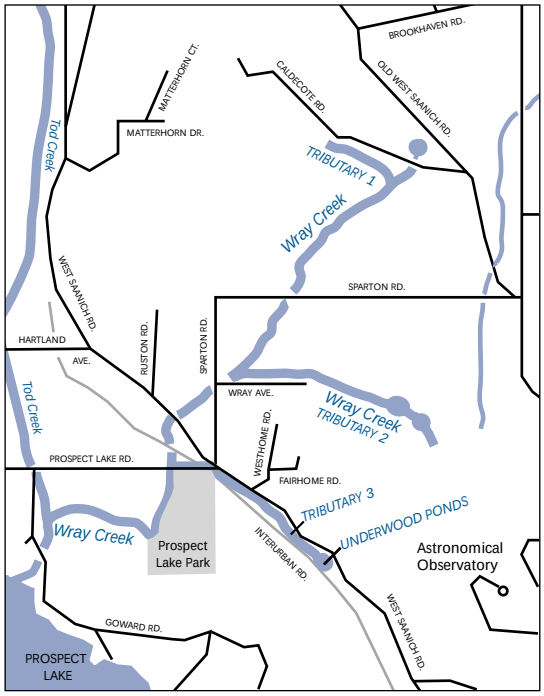
We are very fortunate to live in such a unique area, close to a major city but still rural. If we act now, we can ensure that it remains beautiful for the future. In this issue we have tried to provide some information to help residents protect and improve streams in the watershed *(see page 3)*.

I wish to express sincere appreciation to our anonymous donor, Thrifty Foods, Habitat Acquisition Trust, Municipality of Saanich and the many volunteers who have contributed to this issue.

We all live downstream. — EDITOR

Wray Creek
The Story of a Stream

All the water that lands in our watershed needs to be able to either soak into the ground or flow off by way of small streamlets which join to become larger streams which eventually flow into Tod Creek and on down to Tod Inlet. We all know that water runs down hill and takes the path of least resistance. This means that, barring blockages, the water follows the same path year after year and develops a route that we recognize as a streambed. Some streams flow all year round, but many more are seasonal. In the summer and fall we can see their route and imagine the twists and turns that the exposed rocks and roots will cause the water to take. In the winter and spring we can enjoy the streams flowing under and around these same rocks and roots. We are probably all aware of where the water chooses to flow near our houses and enjoy the streamlets when they come. We probably also know about a nearby stream and are familiar with a part of it. We may not, however, have thought of it in its entirety. One of the many streams that make up our watershed is Wray Creek. I have had some fun lately visiting it at several points along its course.



Wray Creek rises just north of Caldicott Avenue off Old West Saanich Road and flows into Tod Creek very near the outlet of Prospect Lake. In between these two spots Wray Creek winds through an interesting landscape which is fairly typical of this area. Wray Creek's main starting point is a pond in a field near the corner of Old West and Caldicott. The pond is surrounded by cat-tails and sedges which clean and help store the water that runs off the surrounding hill-sides and fields. It is a pretty spot and a good beginning for our little stream. When the fall rains come and the pond fills, the creek starts to flow. It passes through a wood of cedar and fir with salmonberry, salal, sword fern and a lovely clump of spiny wood fern covering the ground. Long ago this stretch of stream was ditched. The water has deepened the ditch and the trees have grown on its banks, but the water still flows quickly through this patch. It crosses under Caldicott Road in a small culvert and into more wood, this time predominately deciduous. Because of the long ago ditching the water flows into this side more quickly than it leaves, so it wanders among the trees and shrubs before it heads downhill beside a riding ring. Here it is joined by another branch which began in a pond to the west.

The two branches joined form a stream which tumbles through fields toward Sparton Road. The stream has carved itself a fairly steep sided little valley for so small a stream. Perhaps it is because there is so little vegetation to slow the water and help give shade and form small pools. But the stream is well loved here. White fences and clipped fields go down to its banks. It is also respected with a proper white railinged bridge on Sparton Road. After the bridge the Creek, quite a respectable size by now, tumbles down a forested water fall — a lovely sound in the winter and spring. This

brings it down off the ridge into the flats near the road named after it. The stream is now incorporated into several gardens giving focus and meaning to the plantings. Another branch of the stream joins it here. This branch has started on the slopes of Little Saanich Mountain, passed through a pond in a large field and gone on down to a second pond which has been formed with the help of a dam. Leaving the second pond it flows down past several houses where the land owners have shown varying ways of living with the honour and responsibility of having a stream on their properties.

The enlarged Wray Creek passes under Sparton Road for a second time with a second respectable bridge. Here the creek is in a large flat field which until recently was full of sedges, grasses and cattails typical of small exposed wetlands. These have now been tidied up but may regrow as the conditions are so perfect for them. Joined by runoff from more tiny valleys, the stream gathers speed for its flow under West Saanich Road through a

Continued on page 4

What we can do to protect our streams

To protect our streams we must protect, enhance or restore the buffer zone along creeks.

The buffer zone or riparian area contains moisture-loving trees, shrubs, and herbaceous plants that grow along the edge of a watercourse. Apart from its aesthetic value, the buffer zone protects the stream and land in many ways. It filters potential pollutants like fertilizers, pesticides, and septic run off. It also controls soil erosion that can fill the stream or muddy the water making it impossible for fish spawning. Buffer zone plants create shade that moderates stream temperature. The plants also provide food, shelter, and nesting sites for wildlife. Wider buffer zones (at least 30 metres) create more stability, deeply rooted plants, and greater biodiversity. Riparian areas absorb water during heavy rain and release it gradually during drier periods. It is in the interest of everyone to protect buffer zones, if only to safeguard ground water.

If a stream has a healthy buffer zone, one need only restrict pollutants and avoid disturbing it. Many farmers avoid ploughing close to a stream and leave a sufficient buffer to support insect eating birds. In this manner they reduce their dependence on insecticides.

If a stream has a damaged buffer zone there are several things one can do. One must remedy the extent of erosion and then grow native plants suited to the area.

Naturescape British Columbia is a valuable resource. There are also experienced groups that can advise and assist in the restoration of a watercourse. *(See below.)*

By protecting and restoring our watercourses we are protecting our environment and leaving a legacy for the future. — SHELAGH LEVEY

Do you want to improve or restore your stream or lake shore? The following groups and individuals are willing to assist you:

CERCA
Kevin Jancowski
kjancows@pacificcoast.net

Community Advisor for Fisheries and Oceans Canada
Tom Rutherford *250*-746-9882
rutherfordT@pac.dfo-mpo.gc.ca

Peninsula Streams
Ian Bruce 363-6595
brucei@dfo-mpo.gc.ca

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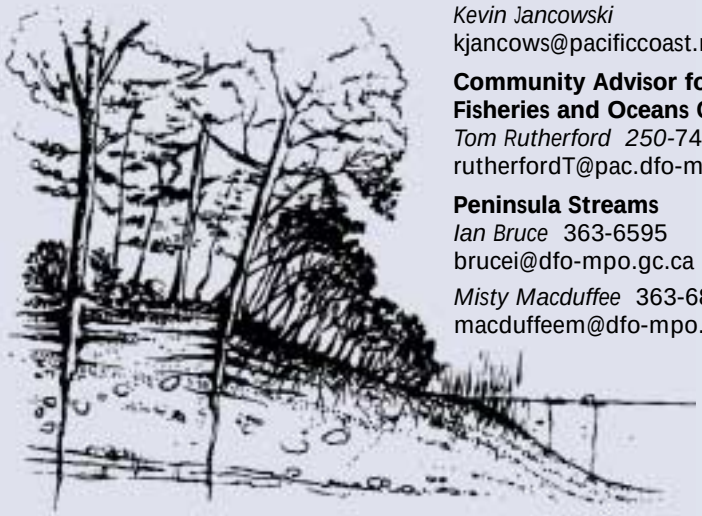
macduffeem@dfo-mpo.gc.ca



A natural buffer. Illustration: Shayne Friesen

culvert. Here it long ago found a school whose students, now adults, tell stories of playing in the creek and getting gloriously wet. One woman still proudly bears a scar gained from riding her bike off the little bridge by the school. The school has now been moved down stream to allow for bigger playing fields. The creek gets to the new school by flowing through a garden with a waterwheel happily put there years ago.

Here the saddest chapter of Wray Creek's history is written. Another tributary, also from Little Saanich Mountain, passes through the Underwood's wildlife ponds and then flows north parallel to West Saanich Road and comes to join the main stem. I used to look each spring for the yellow mimulus brightly blooming on the banks beside Prospect Lake Road. Now this part of the tributary is buried in a culvert. This culvert joins the long, long culvert of the main creek which takes the creek under the school grounds and the tennis courts. No more do school children play in it. No longer does the sun shine on it and no longer does it receive the rains that fall there. It is hidden in a long dark tunnel rushing along as if we were somehow ashamed of it.

The creek emerges from this indignity into a wooded area. It is again respected. Someone has posted a sign warning us to be careful of the fish spawning. The stream works its way through the trees, past a horse stable and then through a final field. Its course is marked here by the healthy riparian vegetation — alder, willow and a few evergreens. It has a last pleasant run through the currently fallow field, and then Wray Creek flows into Tod Creek From there its waters flow north, through field and woods, over a final waterfall and into the salt water at Tod Inlet.

Wray Creek is one of many little creeks that make up parts of our watershed. Its course is no more troubled but also no more bucolic than many of its fellows. Each thing that happens to the land the creek drains affects the creek. We can watch it, love it, help it, hinder it all very easily. The choice is ours.— MARY HAIG-BROWN

MARY HAIG-BROWN
is a long time resident and a member of the Friends of Tod Creek Watershed.

14 *tips to maintain a healthy stream*

- Locate livestock away from streams.
- Keep animal wastes out of streams (to prevent run off, store horse manure under cover and on a concrete pad).
- Restrict the number of animals on a site.
- Prevent toxic chemicals from swimming pools and hot tubs from entering streams. Drain into a dry well or spray over a large vegetated area.
- Avoid using treated wood as it is very toxic.
- Clean vehicles and boats well away from water.
- Use alternative cleaners like baking soda and vinegar instead of toxic products.
- Maintain septic systems to minimize septic runoff.

- Allow streams to meander. Straightening them can result in fast run off and possible flooding and erosion resulting in a ditch like in the photo (left). Water rushes off, creating more erosional force and downstream siltation.
- Leave a 30 metre buffer zone of native plants alongside a stream.
- Resist the urge to grow a lawn to the waters edge as grass does not absorb water as well as deeply rooted native plants in a buffer zone.
- Leave trees that fall into or alongside the water as they help to prevent erosion.
- Remove human garbage but leave natural debris as it contributes to a healthy buffer zone.
- Leave logs, boulders, root wads, and undercut banks as they slow water down, prevent erosion, and provide a safe habitat for fish.

natural history

Birds in Spring

NEST BOX CLEANING TIPS

Years ago, my naturalist father taught me the following nest box cleaning method.

1 Remove lid of nest box (or open side or front).

2 Scrape and tap out last year's debris (and spiders) as much as possible.

3 Pull out a 4-inch wide piece of waxed paper from roll, tear it off, crumple and twist.

4 Set the paper on fire and quickly pop it into the nest box. The intense heat will kill parasites.

5 Remove ash, if any.

They're back! For many of us the Dee Dee Dee Bzz! of the Rufous Hummingbird in the Flowering Red Currant plus the swoop of swallows herald the true arrival of spring.

Spring Notes…

- Two hummingbirds are commonly found in our watershed; the year-round, somewhat chunky green-backed Anna's, and the March-arriving Rufous (even the green-backed female has a rufous wash on her sides.)
- Once the Rufous Hummers arrive and the nights warm, a gradual decrease of the winter's concentrated sugar solution to a boiled/cooled 4 parts water to 1 part white sugar can be used. This solution closely mimics flower nectar, the hummingbirds primary food source. The sugar solution should be changed weekly and the feeder cleaned with vinegar then rinsed before refilling. This helps avoid fatal fungus growth.
- Violet-green Swallows and the metallic blue Tree Swallows readily accept nest boxes with a good "swoop-way" in and out of the box. To keep the larger-footed murderous "English" or House Sparrows from invading, we've placed a wooden plate with an oval measuring 1 inch wide by 7/8 inch high over the nest box opening. Smaller cavity-nesters such as chickadees and nuthatches can also navigate this opening.
- The beautiful Barn Swallow builds its mud-messy nest on rafters and in sheltered niches. Many people consider a Barn Swallow's nest brings good luck!
- The rare Purple Martin, a member of the swallow family, hasn't yet settled on Prospect Lake, despite erection of their shoe-box style of nest box. Maybe this April…
- Nesting birds eagerly consume clean crushed egg shells set out in a safe accessible location.
- Nesting swallows swoop down to snap up feathers (from an old feather pillow) tossed into the air on a still spring day.

— Becky Shaw.

Becky Shaw is a 32-year Prospect Lake resident who watches birds on and around the lake.

European Starling

Photo: Bruce Whittington

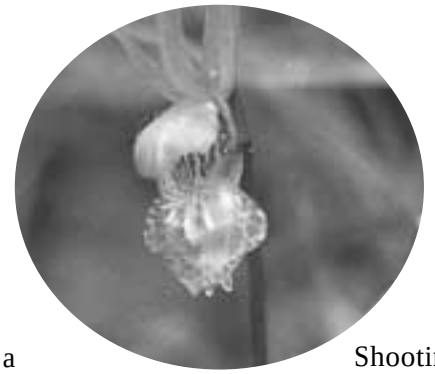
Protect Purple Martin Nest Boxes from the European Starling

For the past two years Habitat Acquisition Trust has organized local groups to build and erect Purple Martin nest boxes in an effort to help this threatened species. If you have a Purple Martin nest box please consider blocking the entrance hole to prevent year-round starlings using it before the Purple Martins return from South America in late April.

Starlings are black birds, speckled in winter and iridescent in spring. Their dark bill changes to yellow in the breeding season. These gregarious birds are usually seen in large flocks, feeding on insect grubs. Starlings were introduced to New York from Europe in 1890, and have now spread across North America. — Shelagh Levey

natural history

Spring Delight



Calypso Orchid

The watershed is home to a myriad of species of wildflower. As ours is a Mediterranean climate — mild, wet winters and dry summers — most bloom and set seed early in the year before the ground dries up. Many disappear entirely, their corms, bulbs, or roots lie dormant in the soil until the following spring.

It is hard to miss the most dramatic of the spring beauties — the huge, yellow spathes of the Swamp Lantern (also known as the Skunk Cabbage for its odor reminiscent of a creature not found on the Island), the tall, rich blue spires of camas or the graceful, dancing cream heads of the fawn or Easter lily. Each of these is readily seen along Prospect Lake Road.

A walk along woodland trails or under the power lines will also reveal many of the less numerous, but equally lovely, flowers. In early spring on rocky or grassy slopes, look for clumps of Satin Flower with their thin spiky leaves and satiny pink-purple six petalled flowers. Later in the spring, these same slopes may be covered with the delicate little flowers of Blue-eyed Mary or with a pink carpet of the small, many-flowered heads of Sea Blush. In grassy or open wooded areas look for the Shooting Star with its down pointed dark anthers and twisted backward pointing pink petals. In more heavily wooded areas, you may see the little Calypso Orchid (Calypso was a beautiful wood nymph of Greek mythology) — its narrow pink petals and slipper-like spotted lower lip balanced on a slender, curved stem. The roots of this little gem are so delicate that picking the flower breaks them and kills the plant. Found in more open areas is the Chocolate Lily, its several purple-brown, mottled bell-like flowers nodding on the end of a long stem. Once, its bulbs were eaten by native peoples, but today, habitat destruction has rendered it too rare to be disturbed.

In late spring the Tiger Lily opens its bright orange Turk's cap blooms in forest clearings and along roads. Also blooming at this time is the Red Columbine, unmistakable with its red- and yellow-spurred flowers hanging from the ends of 3 ft. stems.

These are just a few of the wildflowers seen on spring walks in the watershed.

— NAIRN HOLLOTT

NAIRN HOLLOTT lives near Trevlac Park and is a member of the Friends of Tod Creek Watershed.

Spring lists

Blue-eyed Mary *(Collinsia parviflora)*

Calypso Orchid *(Calypso bulbosa)*

Camas *(Camassia leichtlinii)*

Chocolate Lily *(Fritellaria lanceolata)*

Easter Lily (Fawn Lily) *(Erythronium oregonum)*

Red Columbine *(Aquilegia formosa)*

Satin flower *(Sisyrinchium douglasii)*

Sea Blush *(Plectritis congesta)*

Shooting Star *(Dodecatheon hendersonii)*

Swamp Lantern *(Lysichiton americanum)*

Tiger Lily *(Lilium columbianum)*

Excellent references for identification are:

G.A. and W.V. Hardy, *Wildflowers in the Pacific Northwest*

Lewis J. Clark, *Field Guide to Wildflowers in the Pacific Northwest*

J. Pojar and Andy MacKinnon, *Plants of Coastal British Columbia*

(Right) Sea Blush, (Far right) Easter Lily

Jellyfish…in a Lake?

Most jellyfish populations are either all males or all females. Locally only males have been found.

Thanks to Purnima and Stephen Price for helping find the jellys, to Tom Gore of UVic Biology's Imaging Services, Elizabeth Corry's article in The Victoria Naturalist, *and to Mike Corry, and Anita Brinkman-Voss for technical input.*

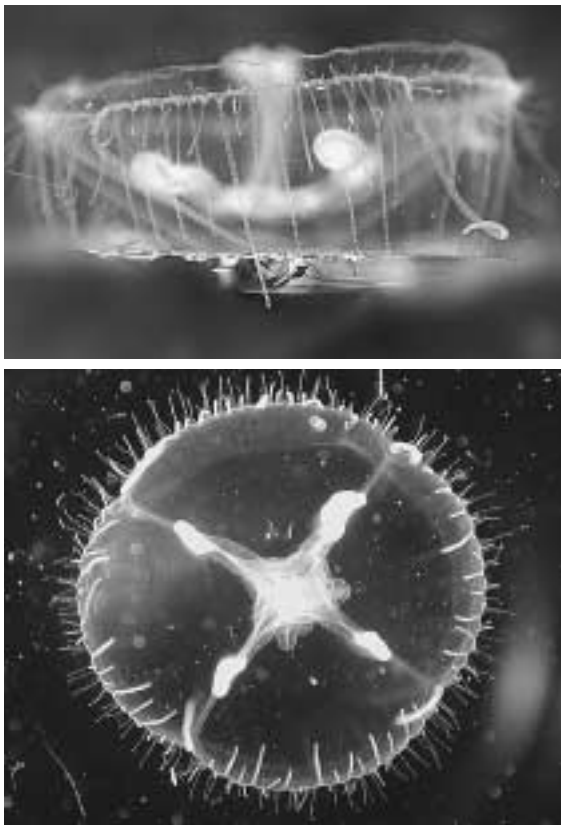
WOODY THOMSON *lives on Maltby Lake.*

We frequently see freshwater sponges in Maltby lake, but five summers ago my young cousin announced "There's jellyfish in the lake!" The next time we went swimming, it was mid-August. I saw them just below the surface, slow moving transparent blobs, varying in size from 20 to 30mm (between the sizes of a quarter and a loonie), and never less than a metre apart. The west side of Maltby Lake was thick with them. You couldn't avoid contacting them when swimming, and no sting was felt following contact. With a simple underwater camera, I took several (poor quality) photographs. I intended to use a professional camera the following summer, but for the following three summers I could find none of them. University of Victoria biologists had warned me that their appearance might be infrequent, and that while not endangered, they are rare and probably intolerant of pollution.

Last summer we found them again, although they were very much smaller, and less numerous, than previously observed. They occurred in a very small area of the lake and varied in size from 6 to 12 mm (approximately the size of a shirt button). These were probably immature specimens. We collected several specimens and had them photographed with a specially designed setup at UVic Biology Imaging services. Six specimens were then donated to the Royal B.C. Museum.

Worldwide, there are over 900 species of jellyfish, belonging to the phylum Cnidaria, classes Scyphozoa, Hydrozoa, or Cubozoa. They inhabit every ocean on the planet. They are over six hundred fifty million years old and were around long before dinosaurs or sharks. They are invertebrates, lack a heart, brain, bones, and eyes, but have nerve cells that initiate movement and react to food and danger. They can smell, taste, and detect light. Their composition is 95% water, the rest being salts and proteins.

Freshwater jellyfish (*Craspedacusta sowerbii*) belong to the class Hydrozoa, and generally occur between 55^{o} N and 45^{o} S latitudes.



Jelly fish from Maltby Lake — approximately nine times life size. Photo: Tom Gore

Locally they have also been found in Durrance and Glen Lakes, possibly distributed by human relocation of aquatic plants or on the feet of waterfowl. Freshwater jellyfish have three life history stages. The non-moving stage is a very small polyp or hydroid, which can be either male or female and is attached to the lake bottom. When conditions are right, these will bud asexually into male or female medusae (jellyfish). Eggs and sperm of adult jellyfish are shed into the water where fertilization occurs. The resulting free swimming larval stage, or planula, settles to the bottom of the lake creating the polyp or hydroid stage. Most populations are either all males or all females. Locally only males have been found. This suggests that the local jellyfish population developed from the introduction of a single polyp to a lake, which multiplied thereafter through asexual budding.

I feel that these amazing organisms, as well as the freshwater sponges, exist as a result of Maltby Lake's unique chemical profile and its relative lack of disturbance. Let's try and keep it that way. — WOODY THOMSON

Renewing Tod Creek

Ron dePol, 1980s

Below: Ron dePol today, and *(bottom)* in December, 1985, checking a seal net across the Tod Creek estuary. Seals had regularly decimated the spawning Coho, but that year, after the nets were in place, a dozen Coho made it up the creek. Photo: Lawrence McLaglan/*Monday Magazine*

Twenty five years have passed since the controversy over Tod Creek seeped into our consciences. Ultimately, the contest boiled down to whether Heal Lake's wilderness ambience was worth less or more than modern garbage, a contest inextricably linked to the condition of the creek, toward which everything flows. In July, 1991, Heal Lake was officially designated Phase 2 of the Hartland Landfill. Forty-five years from now the landfill will be filled, or, stated differently, in about twenty-two years we will be back where we were in the 1980s.

By 1978 Tod Creek was in terrible shape: choked with debris, stinking of runoff, and poisoned with leachate. The creek was a drainage ditch no one saw, or paid much attention to, until Ron dePol came along and changed everything.

Habituated to regular hiking in the watershed, dePol was first to take serious notice of differing conditions between Heal and Durrance Creeks, the former frothy foul, the latter crystalline sweet. Both fed Tod Creek. At the head of the cataracts off Wallace Drive, Butchart Gardens had built a holding pond from which to pipe irrigation water; however, contaminants injured its plants and Butchart's diverted the system to a nearby reservoir in 1986.

Habituated to regular hiking in the watershed, dePol was first to take serious notice of differing conditions between Heal and Durrance Creeks, the former frothy foul, the latter crystalline sweet.

DePol began to wonder and performed a test. He placed living fish near the confluence of Heal and Durrance Creeks and watched the results. Within hours the Heal Creek fish were dead. Results in Tod Creek were similar, yet fish released in waters from Durrance Lake were healthy so long as they stayed away from waters mixed with those of the Heal. The implications were clear: our leaching dump was a killer.

Sometime in the late seventies dePol met Lorne Ebell, a like-minded naturalist with a background in forestry. Ebell had worked with other watersheds and dePol asked if he would like to help restore the Tod. Both men came to the task with a primary interest in fish, and as it turned out, fish were the key that began fixing almost everything else as well.

Word got around and the Tod Creek Watershed Enhancement Society was formed with dePol and Ebell working as chairman and secretary, respectively. Letters were written. Publicity ensued. Controversy bubbled. DePol presented the CRD with his findings and assessments, and some of them struck home. The CRD acquired land on both sides of the cataracts down to Tod Inlet.

DePol and Ebell set to doing whatever it took to return salmon to the upper reaches of the creek, across the farmland toward Prospect Lake. To upgrade and create shaded riparian zones required by salmon, the Society gained approval to plant trees on private property — trees seeded, potted and nurtured largely in dePol's front yard. Volunteer crews went to work on debris and the blasting out of pools and rock ladders in the lower reaches, as dePol and Ebell engineered the hatching of salmon fry, trucking the eggs with milt to the Goldstream hatchery and back again as young fry to the upper Tod. School children were solicited to feed the fry because hand feeding can halve mortality rates. However, none of this collective work affected the implacable trickle of ammonia, tannin and metals percolating down from the dump.

Since leachate is created by rain water passing through trash and garbage down to a rock basin from which it leaks out, ending up in streams, dePol believed the brew could be eliminated by placing a membrane over the garbage and diverting the rain, in part towards those very streams previously contaminated.

Simple and direct, but the CRD had other ideas. A lot of trenching was dug, a lot of pipe laid, and now our orphaned, ever adventurous,

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Photo: Karen Hurley

2001 Assisted by teacher Patsy McCarter and Habitat Acquisition Trust contractor Karen Hurley, students at Durrance School conducted environmental planning and restoration designs for a section of Tod Creek. In this photograph, some of them are watering the native vegetation they planted to enlarge the riparian zone along Tod Creek where it flows through Dave and Judy Wallaces' property.

Photo: HAT

(Left) Salmon fry raised in local classrooms.

2002 *(Right)* A fishway was built on the lower reach of Tod Creek in order to enable returning fish to get further upstream.

A New Fishway, 2002

Water quality problems, obstructions, and agricultural practices have all had impacts on the salmonid populations in Tod Creek. The original Coho population of Tod Creek was extirpated (became locally extinct) in the late 1970s and, although Coho Salmon were restocked in Tod Creek during the 1980s, very few spawning fish were able to return because of obstructions along the creek.To improve access for fish, Habitat Acquisition Trust (HAT) received funding from The Pacific Salmon Foundation to complete a small fishway on lower Tod Creek (about half way down as you walk through the park). Work was completed in the summer and early fall of 2002, when Victoria's dry season reduced flows to a trickle. Work on the fishway was carried out by Coastal Enterprise and Resource Centre (CERCA), which has been working on Tod Creek for several years. Hopefully, Coho Salmon will now be able to make their way further upstream.

Also as part of this project, local school children will have an opportunity to learn more about salmon and their life cycle requirements. They will have a naturalist with them in the spring when the salmon they have been raising in the classroom are released. These educational programs will be done by Arenaria Research and Interpretation, the same company that has provided educational programming about salmon at Goldstream Provincial Park for more than a decade.

HAT has had a long involvement in the Tod Creek Watershed and this component of the work creates another link between improved water quality, ongoing habitat restoration, and stewardship initiatives. — Claudia Copley, Habitat Acquisition Trust

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leachate roils in the Juan deFuca Strait, missing, perhaps, a few whales, most tourists and possibly even a U.S.S. Trident or two.

For dePol, and all of us, CRD's leachate solution is a limited, possibly pyrrhic, victory. Tod Creek is safe from today's toxicity only because we're swelling the torture of oceans.

The creek is still muddy, but there is comfort knowing it's clean mud. In winter and early spring the cataracts glissade furiously through a forest rained with emerald light. Dogs are full of glee, and even people forget themselves in that place. The next time you find yourself stressing out over a deadline or a divorce, hike down the Tod, think of your neighbors and all those children, and thank Ron dePol for blazing the way. — RIC HUNTER

RIC HUNTER has been carrying out his garbage at Prospect Lake for over thirty years.

Demystifying Saanich bylaws —Watercourses

What do streams, creeks, ditches, lakes, channels, rivers, swamps, and springs have in common? They are all considered watercourses in Saanich Bylaw No. 7501, commonly known as the Watercourse Bylaw. Polluting, obstructing, enclosing, or impeding the flow of any watercourses is prohibited under the bylaw. The bylaw has a schedule of prohibited wastes, from high temperature waste to pesticides, that are not permitted to be discharged into a watercourse.

Thinking of putting in a culvert? You need permission from the Directors of Saanich Engineering and Planning. As with any work in and around a stream, you should first contact the federal Department of Fisheries and Oceans and the provincial Ministry of Water, Land and Air Protection for permission and advice.

Part of the Watercourse Bylaw is a map book, called Schedule B, that shows the municipal drainage system. If the watercourse appears in Schedule B, there are a number of regulations that apply. These include:

- one cannot alter, repair, remove, fill in, reconstruct, divert or carry out any other works on a watercourse without prior written approval of Saanich Engineering and Planning (Watercourse Bylaw)
- one cannot cut down a tree within 15 metres of a watercourse without a permit from Saanich Engineering and Planning (Tree Preservation Bylaw No.7632)
- all structures and buildings must be located a minimum of 7.5 metres from a watercourse (Zoning Bylaw No. 6120)

Don't forget the Fill Prohibition Bylaw (No.7058) which prohibits fill within 15 metres of many streams (see schedule A). Prospect Lake and Tod Creek have fill prohibition areas based on elevation (above sea level) and this may be greater than 15 metres from the water.

The Prospect Lake/Tod Creek Development Permit Area (DPA), is specifically designed to protect water quality and riparian habitat in the watershed. Guidelines are given to reduce site disturbance, loss of vegetation, run-off, and pollution. Landowners must apply for a permit before subdividing, constructing buildings or altering the land within 30 metres of watercourses that appear in the DPA. Riparian restoration may be used as a tool to mitigate impacts from development.

It may seem like a lot to know, but the key is to think twice before doing any work around a watercourse. Remember, bylaws can change and the information in this article is a summary of the current bylaw. If you are in doubt, please refer to these articles then check the bylaws, or just call Saanich.

Saanich is actively involved in watercourse restoration, stormwater management, education, and awareness. If you would like to know more about these activities or stewardship opportunities, please contact me at 475-5494, extension 3556. — ADRIANE POLLARD

ADRIANE POLLARD is the Manager of Environmental Services in the Saanich Planning Department. She is an ecologist and a member of the Planning Institute of British Columbia.

Rivers Day

On September 29th, our mom and ourselves headed out to Whitehead Park to our very first Rivers Day celebration. The cold weather wasn't enough to keep the few diehards from showing up to view the lovely display Sherron (McPherson) had set up.

We looked for bugs in Tod Creek and on the shore of Prospect Lake, practised our watershed mapping, and had a great time helping the little ones learn about our rivers. Everyone looked to enjoy themselves, especially when the sky opened up and the sun came out. All in all it was a fun day despite the cold and we are looking forward to next year's celebration. — ELYSIA GLOVER AND MEGHAN GLOVER

ELYSIA GLOVER is a 15 year old student at Claremont Secondary School. MEGHAN GLOVER is in grade 8 at Royal Oak School. Elysia and Megan participated in a streamkeeper program organized by The Friends of Tod Creek Watershed.

Septic Systems Education Event

One hundred people attended the Prospect Lake Onsite Systems Education Event held November 23, 2002 at the Vancouver Island Technology Park. They took in the high-tech displays, joined in panel discussions and a tour of the building, and listened to presentations on topics ranging from the future of the CRD Onsite Management Program to solar aquatics and waterless toilets.

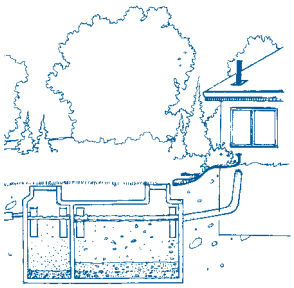

Illustration: Shayne Friesen

Thanks to CRD, District of Saanich, Environment Canada, Ministry of Water, Land and Air Protection, Vancouver Island Health Authority for sponsoring the event and to co-organizer Mary Haig-Brown whose idea it was.

meet your neighbours

Dave and Judy Wallace

Dave and Judy Wallace enjoy having Tod Creek flow through their property. They live in a delightful country home full of all sorts of fascinating arts and crafts, collected throughout their lives and reflecting their love of nature. Dave describes them as "wannabe farmers who can't afford to farm." Nevertheless, they have cattle, sheep, and chickens.

As stewards of the watershed (an agreement with Habitat Acquisition Trust), they leave and encourage natural vegetation alongside the creek and enjoy the wildlife it attracts. In the 1970s, young people participating in Katimavik (a national program for Canadians 17-24 years of age) built fences to prevent their cattle from entering and damaging Tod Creek.

Dave was born in Victoria and attended Royal Oak School before becoming a plumber apprentice. Judy was born in Oregon State where her father was working at a dental college. Judy's family returned to Canada and settled in Oak Bay when she was one year old.

Judy says, "I loved animals from day one." By the age of ten she was a horse enthusiast riding at a stable on Blenkinsop Road. She met Dave, a teenager working part time at the barn. By the time Judy was seventeen they started dating and were married in 1965. Their two daughters were members of the local 4H Club and one of them now volunteers with the organization. *Continued on page 12*

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The Wallaces appreciate the clean air, birds, and deer in the watershed. They leave thickets for the birds (blue jays, nuthatches, downy woodpecker, redwing blackbirds) to feed and nest in. They are grateful to have been able to raise their children in the countryside and regret the changes that increasing development pressure on land is causing. Since moving to Wallace Drive in 1971 they have noticed greatly increased traffic. In addition, the mountain behind their house that used to be black at night is now lit by houselights. "It's not that we're anti-social," says Judy, "but we do like elbow room and we don't like the city." Hopefully, the Urban Containment Boundary will enable the Wallaces to enjoy and steward their 13 acres along Tod Creek for many years to come. — SHELAGH LEVEY

Photography:
Shelagh Levey, unless otherwise credited.

We appreciate the generosity of the anonymous donor who made this project possible and the support of Thrifty Foods, Habitat Acquisition Trust and the Municipality of Saanich.

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Special thanks to calligrapher and naturalist Arlene Yaworsky who designed our masthead.

kid's corner

Dear Watershed Kids,

Are you interested in the games your parents and grandparents played when they were your age? I'd like to tell you about a game Mr. Jack Whitehead played many years ago.

Mr. Whitehead was born in a house near Whitehead Park, 81 years ago. He still lives beside Prospect Lake but says it's very different now. When he was born there were few houses around the lake and the water was crystal clear. It was a healthy lake surrounded by reeds that provided a home for small animals and many birds. Loons used to nest on the island and there was an Osprey nest on the west side. The lake was full of bass and cutthroat trout.

Television and computers hadn't been invented when Mr. Whitehead was a boy, but that didn't worry him. He and his friends often went fishing after school and they had a special game they played with fresh water clams.

Illustration: Kelsey Bates

The clams lay on the bottom of the lake with their mouths open to collect food and oxygen. Mr. Whitehead and his friends would cut a reed and lie down on a dock. When they gently placed the reed between the clam's shells, the clam closed tightly around the reed thinking it was food. The boys would then lift the clam to the deck and see how many they could catch in five minutes. The clams were then carefully returned to the lake.

Mr. Whitehead thought all the clams had been eaten by muskrats but Elysia Glover found a clam on Rivers Day. Do you think we can clear up the lake and help the clams make a comeback?

Your watershed friend, *Shelagh*

? What outdoor games do you play? How about sending us a note to describe one. Email to wconnections@shaw.ca or drop off your entry in the mailbox at 203 Goward Road.

VANCITY *Living By Water* LOAN

To help protect aquatic ecosystems VanCity Credit Union offers interest rebate loans up to $20,000 for shoreline improvements — softening retaining walls, improving septic systems, or creating a buffer zone with native vegetation, rocks and soil. In partnership with The Living By Water Project, VanCity provides a low-fee site assessment and a loan interest rebate for shoreline improvements.To learn more about VanCity's Living By Water Loan Program, call 877-700.

An Invitation to Join the Friends of Tod Creek Watershed

The Friends of Tod Creek Watershed are a group of people who live in the area and come together for companionship and to engage in activities that benefit the watershed. Their mission statement is to protect and enhance the integrity and biodiversity of the watershed. Action groups are currently working on: well water safety, mapping, trail building, water quality monitoring, riparian planting and restoration. Everyone is welcome to join the group. Meetings are held on the first Wednesday of each month, September to June at Prospect Lake Community Hall, 5358 Sparton Road at 7:30 pm. For information, please phone 479-8801 or 479-5647.

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