















Broadmead Waterscapes

Master of Mariculture Dr. Roger Doyle

New Bus Route & Speed Limit Changes













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Cover Photo credits

Numbered from the top left photo in a clockwise

1. Posts with Duckweed, Gabo Restoration Gear, 3. Lilly pads and Flower,

credit: Steph Hull credit: Vickie Hughes credit: Steph Hull

4. Tsukkbai with Kakie, Pipes to Siphon Silt,

6. Pondwood Waterfall.

credit: Steph Hull

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credit: Steph Hull 8. Hauling Out Equipment, credit: Steph Hull credit: Steph Hull 9. Duckweed with Koi credit: Steph Hull

10. Blue Ball with Duckweed, 11. Harold on the Fountain, credit: Francis A Graf

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President's Message

Doug Baer



It has been an eventful summer and fall: Covid-19 has continued to challenge our work, our interactions with friends (let alone strangers), and our travel plans. Most recently, forest fires in Oregon added the "bonus nuisance" of smoke-filled skies that created an air quality advisory against

all outdoor activities.

BARA's Board continued to meet monthly (except for July and August) holding one as a "backvard meeting" (with appropriate distancing), but all other meetings were electronic. We cancelled any "in person" activities (Community Day and Summer Music) but continue to respond to on-line Broadmead resident queries and to represent the community on municipal matters. We are grateful once again to the Bugle editorial team who have seen this issue to press.

BARA's Annual General Meeting was postponed last April; we are now planning to hold it electronically on November 19. Announcements and meeting information will be sent via email to members. Please ensure we have your e-mail address for our records. If you have not yet given us your email address, please contact BARA at info@ broadmead.ca. We will also post information on our web site:

https://www.broadmead.ca/.

Editor's Corner

Beverley Merson

Dear Readers,

Many of us have curtailed our regular activities due to Covid-19 and spent more time in our vards, on our decks or on our balconies and appreciating where we live. It has motivated some residents to undertake DİY projects such as installing or rejuvenating ponds and inspired this BARA Bugle's waterscapes theme.

Dr. Roger Doyle is an apt choice for our Broadmead Notable feature not only because his career involves water - in the form of aquaculture; but, because of his expertise, his accomplishments, and his acclaimed scientific

Recognition also goes to Dr. Doug Baer for his due diligence in closely monitoring BC Transit's process as it made route changes that will affect Broadmead. He provides us with a comprehensive overview for residents' information.

A warm welcome to Stephanie Rae Hill who has joined our volunteer team as a photographer. She has taken time out of her busy life of mom, wife, and business owner of Centric Photography https://stephaniephill.com to help. A number of her photographs grace this issue. Bravo to Dr. Bruce More who once more had braved laying out of all articles and images.

There is an enormous amount of unseen work that goes into BARA Bugle preparation and production. On that note, I would like to apologise to Nancy Craig for using a cartoon to illustrate Jim Pearson's article after she had spent considerable time photographing live-trapped rats.

There is often not enough space to include all of the information into Bugle articles. Sometimes there is follow-up to the articles that might interest readers. We are therefore in the planning stages to provide a More from the Bugle section on the BARA website. For this issue, information will include a recent research paper by Dr. Doyle; more of Stephanie Hill's images; and a follow-up article by Mayor Fred Haynes on the lowering of speed limits.

Happy Reading and Be Safe

Its a gift to be able to find humour in something that is not funny.



Strata Ponds

Beverley Merson

Lucky homeowners in Broadmead's Edgewater and Lakeside Estates have the luxury of overlooking their respective strata ponds. Both of these developments were designed by Broadmead designer, Michael Nixon: Edgewater in the early '80s, Lakeside in the late '80s.

Edgewater, commonly known as the strata that overlooks Pondwood on Rithetwood Drive, is a remarkable architectural feat. The pond was created by dredging a peat marsh between Royal Oak Drive and Pondwood Lane from what was virtually swampland. A circular excavation left land in the center which formed the island. A first-growth tree remains at its edge. The island was covered by a variety of plants chosen by Joe Brun.

There are seven attached units in the form of a crescent around the pond which are situated so that the homeowners can look out from their homes and see the pond, but not the other homes. The units have concrete crawl space slabs 12" – 14" above the water's highest level. The decks are built on piles which give the look of being cantilevered over the pond. The original design was to include ramps leading from each balcony down to floating docks; that never materialized.

The statue was added after the development was completed. The three island waterfalls mask Royal Oak traffic sounds, aerate the water, and are an irresistible draw

for photographers.

Nixon explains that the pond is actually a drainage basin, and its primary source of water is the collection of surface run-off and storm water from adjacent higher elevations. The water passes through dual filters that separate out oils and particulates before it drains into the pond. The water eventually flows out via a weir into two 24-inch pipes under Royal Oak Drive, and then to Lakeside Estates on Lochside Drive.

A gazebo for better public viewing, part of the original pond plan, was built adjacent to the path, but it burnt down and was never replaced. The pathway was also part of the design plan, as were the posts and chains that run alongside. The path, a public walkway and greenspace on the east side, are part of Saanich's Pondwood Park.

Between 1985 and November 2019, Saanich gave the strata owners a small stipend for ongoing maintenance of Pondwood Park while they were looking after their pond. Now that Saanich has assumed responsibility, it is on their regular maintenance schedule, and native plant replenishment is one of its priorities.

Strata owners currently take care of the waterfalls which run during daylight hours in summer and winter to temper the light ice forming on the pond. They also stock the pond and add blooming agents.





In 1981, when the economy was poor, unit sales were slow. The pond was stocked with 150 trout and prospective buyers were given a fishing rod and invited to sit on a deck. Three homes were sold on the first day of using that strategy. Occasionally otters find their way into the pond by swimming in through the pond outlet. Other frequent visitors to the pond are junior turtles and racoons. Both turtles and ducks often nest there.

The pond offers an ever-changing canvas. According to homeowner, Colin, the waterfalls provide a soothing ambience and isolate the strata from road noise. "Living in my home overlooking the pond is just like being on vacation.".

Lakeside Estates is a tranquil strata development overlooking a large pond located beside Lochside Trail. Karen Kesteloo, strata president, shared that the pond's official name is Lacey Pond. The development's entrance, just metres from the Trail, is a private driveway.

The 30-unit strata consists of groupings of two, three, and four attached units fanned around three sides of the lake. Most of the homes are bungalow style, while a few are twostories. It is interesting to see how harmoniously the two styles are nestled together.

The pond was originally a swamp full of alders and was used as a dumpsite. The swamp was cleared, and the pond built before the strata was designed. A narrow walking path, with a small wooden bridge leading to a gazebo, was developed on the far side of the pond which has a fountain at its south end. The fountain aerates the water and also serves as a resting place for the local great blue heron, which strata members have nicknamed Harold. Stormwater drains into the main pond from the south, and the main pond drains north and out of the property to join Galey Brook inside MacMinn Park.

When residents of this closely-knit strata were self-isolating in March of 2020, they made a routine of coming out onto their balconies at precisely 5 p.m. Saturday evenings to toast each other with a glass of wine or another favorite beverage. On one of those evenings, a resident launched his radio-controlled boat and did a sail-past the homeowners on their decks.

One couple explained that the strata is perfectly situated close to McMinn and Doris Page parks, all amenities, and is a 15-minute walk to the beach. They added that their balcony is a favorite place to sit and drink a morning coffee.

Pond Perspectives

Beverley Merson

Fish & Reflection



Nancy installed a front pond and stream 20 years ago, and a backyard pond about five years ago. She sited their locations based on where she and her family spend the most time so that they could enjoy viewing them throughout the day.

There are fancy goldfish in the front, and she incubates baby goldfish in the rear. Her front pond used to be over 5 feet deep for the koi, but a couple of years ago she filled in

about two and 1/2 feet for easier maintenance. Her pond has not changed much over the years, but she doesn't rule that

She finds challenges in keeping fish safe from natural predators. Nancy used to have koi, but the heron, mink, and otter took them all. Maintaining water clarity and pH balance for a healthy plant and fish environment are issues she faces.

While the maintenance is ongoing, she derives so much satisfaction from the ponds: "It's in the reflective qualities of the sky and the bordering plants, in the habitat it provides to the various birds who visit it, and of course from our much-loved fish."

Tranquil Noise Buffer



These homeowners took a couple of months to build their pond themselves. They brought in all the rocks, positioned the pond so it could be viewed from their lounge area, and a few years later, added a stream. The pond and stream are integrated very naturally into the back-yard landscape. Not only has the pond been challenge-free, it blocks some of the road noise coming from Royal Oak Drive. The owners are understandably proud of the tranquil space they have created for themselves.

Transformative Excavation

Homeowners Vicki and Oscar inherited a threefoot deep pond in their front yard which they plan to turn it into a more natural wildlife pond with native plants including their recently acquired Lysichiton americanus (skunk cabbage).



In 2006, they chose to install a second two-foot deep pond in

their backyard, and it has just gone through its second

renovation. They installed it in a location close to their home so they would "hear the sound of the water and see the water movement reflected on the inside walls."

They did the installation themselves excavating the "massive" mound of plants and dirt up against the house. Once they started digging, they uncovered an immense old-growth tree stump which took about a month of weekend work to remove. They worked for another couple of months to add a fountain, complete the

pond, and finish the surrounding landscaping.

The front pond originally had goldfish; however, between the racoons and heron, the fish all disappeared. Vicki recently saw a large otter looking for food in their back yard, so fish would never survive. Keeping the ponds and fountain clean are challenges. Vicky and Oscar love the pond for the clean, calm surroundings and for the lily pads they planted. They die back in the winter and return in spring to produce numerous, showy, bright pink flowers throughout the summer.

Form & Function

Michael and Jana's home and lot are triangular in shape, and they currently have five ponds surrounding their home. Their latest pond should be called the Covid-19 Pond Project. Michael began to b-uild the pond at the beginning Feb./March 2020 when Covid-19 first came to light in BC., and he completed it while most of us were practising self-isolation.

Over the past 27 years, he has had 7 ponds that he installed himself, many of which were filled in and planted over. Michael located his ponds as a way to control water run-off from

the hill above and chose locations to accent portions of the yard. He gets pleasure from the fact that all his ponds have different functions. Michael was unequivocal in his opinion that two challenges to having ponds are controlling algae and maintaining fish despite herons, mink, and raccoons. Michael pointed out that people need to be mindful of planning ponds to look esthetically pleasing during our West Coast's dry, and rainy, seasons.



You may have walked Rolston Trail through Emily Carr Park to Rithet's Bog while enjoying the stream nestled inbetween the path and the riparian (the border between land and streams) area behind it. In fact, this stream originates in Pondwood and runs underground until it surfaces adjacent to the playground.

Its official name is Gabo Creek. Work on the stream in late August/early September was quite noticeable. The following article may answer your questions about what was done and why.

Originally streams, creeks, storm water, and wastewater in Saanich, were looked after by the Street Operations team. However, following the 2011 Swan Creek spill from an old furnace oil tank rupture, Saanich created a new team to study, manage, and maintain these: the Storm and Wastewater Section of the Engineering Department.

In-Depth Water Flow Studies

In 2013, its manager Ben Bowker, hired engineers and biologists to assess the interface between underground and surface water. They:

- 1) observed where underground water met surface creek water and drain outlets met receiving waters.
- 2) researched where water flows to lakes and the ocean.
- 3) studied riparian areas.
- 4) looked for sources of flooding.
- 5) assessed erosion, invasive vegetation such as reed canary grass, and other debris sources that caused siltation. (A major source of silt is dumping pine needles from roads and driveways into drains and catch basins.)
- 6) surveyed the drainage during heavy rains.

The team came up with a plan: Depending on the creek, restoration could involve slope stabilization, removal of invasive plants/trees, assisting flow conveyance; and removing sediment which supports stream flow, improves water quality, minimizes flooding, and improves aquatic habitat.

This program completes assessments of all creeks and waterways within Saanich and from that an environmental protection plan and work plans are developed. The assessment uses GPS readings to determine stream depths to ensure that the highest point of the streambed is not higher than the inflow and also that the lows and highs do not impede the flow of water as the steam travels to its final destination.

Gabo Creek Remediation

In July 2013, continual flooding and low stream flow necessitated a restoration project of about 180 metres. More than 400 yards of material were removed within the creek and settling pond. The area was replanted with native plants and new gravel pathways were designed/ installed.

Broadmead Creeks

- Galley Brook
- Lochside Creek
- Normandy Creek
 - Gabo Creek

Ben Bowker says, "Generally speaking, once we restore a creek or waterway, we expect it to have long-lasting effects and naturally take care of itself. The goal is to return the area to its natural native state. Further maintenance may be required however, to ensure water flow and quality due to silt settlement. These areas would be put on a maintenance plan."

While the 2013 Gabo Creek remediation constituted an improvement, silt further downstream was noted. In 2014, the team widened it and created sumps: infiltration basins used to manage surface runoff water and recharge underground aquifers.

Silt was noticed after a year and so the team has scheduled maintenance for every second year when a suction truck

is brought in to remove the sediment that might damage the surrounding riparian area. This has virtually eliminated flooding in the area.

Gabo Creek Restoration

Beverley Merson

This fall was the fourth time that Gabo Creek was assessed by engineers and worked on to enhance water flow in some channels to ensure they were designed to receive storm water.

Bowker says, "In order to preserve the riparian area, accessibility to the creek can prove challenging. We can't



bring the large equipment close to the creek, so suction hoses are placed from the hydro excavator to the creek to remove the silt."

Not so incidentally, The Ministry of the Environment, Dept of Fisheries dictates the maintenance timeline. The water must be at its lowest level so as not to cause wildlife disruption and/or any downstream fish disturbance.

These maintenance projects are done jointly with the Parks Division which consults with biologists to ensure proper planning of the riparian areas. Healthy creeks are shaded to keep the water cool which is more suitable to wildlife. Several Saanich departments provide the maintenance of the trails and land beside the trails.

According to Ben Bowker, the most important factor for Saanich is to "strike the balance between water conveyance and sustaining a healthy natural habitat."

How Residents can Preserve the Stream Health

Saanich asks residents to refrain from dumping pine needles, detergents, or gasoline from their gas-run garden landscaping tools and devices into drains and creeks.



Meet Dr. Roger Doyle A Master of Mariculture

If you ever have the opportunity to meet with Dr. Roger Doyle, expect him to engage with you on myriad topics. He is conversant in history, current events, world affairs, economics, climate change, cultural climates, literature, negotiation, and, most notably, genetics. Not only is he a fund of knowledge, but a thoughtful listener as well.

Roger is a world-renowned aquaculture geneticist with 40 years of tilapia, salmon, carp, and shrimp genetic research, development, and commercial experience.

He is highly sought after for his expertise. His long and continuing career includes consultancies and visiting professorships in aquaculture, ecological genetics, and conservation. He is a past president of the International Association for Genetics in Aquaculture and has worked with the Food and Agriculture Organization of the UN (Rome) and the International Atomic Energy Agency Vienna).

Roger earned his B.Sc. in Biology and Chemistry and M.Sc. in Oceanography from Dalhousie University and M.Sc. and Ph.D. degrees in Biology from Yale. He retired from Dalhousie as Full Professor and founding Director of the Marine Gene Probe Laboratory.

Roger and his wife Janet have two children. They moved to Broadmead in 2006, after Roger flew from Halifax to Victoria in February for work, saw the cherry blossoms and thought, "Why would anyone want to live anywhere else?" They enjoy the Broadmead community, trails and gentle climate. Despite their widespread travels they have not yet not found an answer to the question, "Where else?" Roger spends some of his leisure time walking with friends, cycling, and sailing.

In the course of his work, Roger has traveled to many places,including Europe, Asia, the Middle East, Mexico, and South America; Janet and their daughters have been able to accompany him to many of them

Roger has longstanding relationships with his former graduate students, many of whom were supported by Canada's International Development

Fisheries and Oceans Canada

There has been a steady decline in fish stocks worldwide. There is simply not enough wild seafood on the planet to meet global demand. In fact, half of the seafood people now eat comes from farms, predicted to be 62% by 2030, says a 2014 World Bank report.

Research Centre. They are currently organizing a Facebook chat group, tentatively called "Doyle lab" (although other suggestions are in play) amid a lot of joshing around over 7 different time zones.

I asked Roger, "Why are farmed shrimp so popular?". Roger replied, "Shrimp is a source of animal protein, and it is hard to find sources where the mix is rich in amino acids and at the low prices of farmed shrimp. Both the environmental and economic costs of raising beef/ or chicken are much higher than raising fish". A lot of Roger's efforts are focussed on breeding animals that adapt to their local environments when reared by small-hold farmers in developing countries rdoyle@genecomp.com

Thailand has a long history of fish farming. Fish are grown for local consumption in village ponds and for international sale in industrial farms. Thai shrimp are sold at Thrifty's in Broadmead! Roger first worked there on a United Nations International Development Program in the early 1980s". He has visited there regularly ever since on a number of projects and has had many Thai students.

Canada has a thriving Aquaculture Industry, and in Asia, Canadian farmed salmon has a reputation as safe, quality protein. Aside from economic and ecological advantages, there are added benefits to fish farming. Soil and droppings under the cages are collected and sold commercially. (I'll think of Roger the next time that I apply "sea soil" to my garden.) It takes anywhere from less than three, to five years, for natural remediation once cages are removed. It can take 200 years for a cattle ranch to become a forest again.

My biggest takeaways from meeting with Roger are his assertions that: "The industry and its practices have greatly evolved since mariculture's early days. If not for the availability of farmed seafood, natural fish stocks would be eradicated.

Roger finds his work gratifying. "I am happy to contribute to providing a food source and livelihoods for developing country people."

Beverley Merson

Aquaculture in Canada emerged in the 1970's in response to increasing global demand for fish and seafood Aquaculture's contribution to the economy over the last decade has more than doubled, reaching \$487.4 million in 2018.







New Bus Route 25 to Replace #6 in Broadmead

Local Area Transit Plan Will Mean Changes to Broadmead Bus Service: New Bus Route 25 to Replace #6 Under the Local Area Transit Plan, BC Transit has created a new bus route configuration. The current 6A, Emily Carr, and the 6B Chatterton buses, will be eliminated. These will now be served by route #25, which will be extended north from McKenzie along Blenkinsop Road to Royal Oak Drive through Broadmead along Emily Carr then up Chatterton to Royal Oak Exchange (see map).

This route will go downtown without the need to transfer. Downtown, it will travel Cook Street to Yates (to downtown) or Johnson (from downtown). BC

Transit estimates that, for Broadmead residents, the travel time will be similar to the present time for the #6A bus (although the new route is a bit longer, there are fewer traffic lights, less traffic, and fewer passengers at stops).

The big challenge for Broadmead residents living along Emily Carr will be going north first to get downtown. BARA has urged BC Transit to mark bus stops northbound with "To Downtown" and bus stops southbound with "To Royal Oak Exchange." The new routing will give residents in the northeast corner of Broadmead (Lochside, Hillside, Scottswood, Rithetwood) closer access to directto-downtown bus service. But, for

residents along parts of Royal Oak Drive, and on the western portions of Cottonwood, Boulderwood, and Kentwood, there will be a longer walk or the need to transfer to get downtown (mitigated a bit by a few more #32 express bus trips directly downtown, a new #34 service to Royal Oak Exchange and more frequent service on the #32 route). For residents living along Chatterton (e.g. Dalewood, Royal Oak Avenue), transit times downtown may be slightly longer than now. There will be service on weekends (not now the case with the 6B bus). Some residents will use the Pat Bay Highway underground pedestrian tunnel to catch the "frequent service" #6 bus at

> Other changes are fairly minor. There will be no change to the #39 service to UVic (and in the other direction, Camosun and the west shore). The existing #32 bus along Royal Oak Drive will remain, with slightly better frequencies (including possible addition Pat Bay highway to and from downtown during bus from the Royal Oak Exchange will run along Lochside Drive in both directions.

an extended period of a few years.

The Broadmead/Cordova Bay Local Area Transit Plan:

Shoreline

School

Admiral's Walk

Westshore Shopping Centre

HMC Dockyard

Recreation

Centre

Park & Ride Lot

(no overnight parking)

Royal

Roads

University

25 Maplewood/Admirals Walk

Proposed route modification (removal)

Proposed route modification (addition)

25 Shoreline School

A Brief Chronology Detailing BARA's Position on Bus Service Changes - Doug Baer

Camosun

College Interurban

Campus

24 25

Colville

Development of the Broadmead/Cordova Bay Local Area Transit Plan began in early 2019.

- In February of 2019, BARA wrote to the Chair, VTRTC* outlining concerns about poor transit service in Broadmead and other transitrelated issues. BC Transit had not yet announced its planning process for Broadmead/Cordova Bay.
- In March, BARA learned of open houses and a future meeting of "stakeholders" to which BARA had not been invited. BARA learned that Cordova Bay Association for Community Affairs had been in contact with BC Transit planners, but Falaise Community Association had not.

BARA expressed disappointment in an email to BC Transit and to the Chair, VTRTC. BC transit staff then offered to meet with BARA.

- Subsequent to this, BARA was then "kept in the planning process loop." When specific proposals were produced, the BARA outlined community concerns to BC transit planning staff at a BARA Board meeting. Some of these concerns were addressed in revisions to the initial plans.
- In summer of 2019, BARA volunteers presented Broadmead area concerns. These included:
- Generally poor level of service in Broadmead. At 40-minute intervals, service frequency is lower than that provided in most Saanich neighbourhoods.
- No service after 9:30pm while most Saanich communities get service to midnight
- Buses leaving before time point schedule and buses exceeding the speed limit along Emily Carr
- Poor service (for the entire community) to the airport
- #39 bus "pass up" problems for Broadmead residents working

at Victoria General Hospital or west shore (scheduling and frequency of service issues)

Esquimalt

• Given infrequent service, need for a passenger drop-off/pick-up bay at the Royal Oak Exchange (e.g., for buses to the ferries, late night service)

In January of 2020, BARA volunteers attended one of three open houses at which BC Transit presented preliminary plans for these bus route changes:

- Stopping the 6A direct-todowntown service and replacing it with an extended route #32 which would require a transfer at Royal Oak Exchange or at the corner of Chatterton and Quadra. The revised route for #32 would probably have implied the elimination of the #32 express bus routing along the Pat Bay highway to downtown and its replacement with a slower Quadra Street routing.
- A new route#34 running from the Royal Oak Exchange, then up Lochside Drive to Claremont Secondary School.
- Along Emily Carr, a reduction in bus frequency from 40 to 60 minutes. New services for residents in the

expanded services for residents in the Cordova Bay area. After the open houses, BARA

Blenkinsop valley and substantially

*VTRTC = Victoria Regional

Reynolds School

Cedar Hill

20213 - 07292020

Saanich

Centre Reynolds

Finlayson

Hillside

Royal

Athletic

Park

Transit Commission

Commonwealth

₩ Esquimal

Royal Oak

Shopping

Centre

Royal Oak

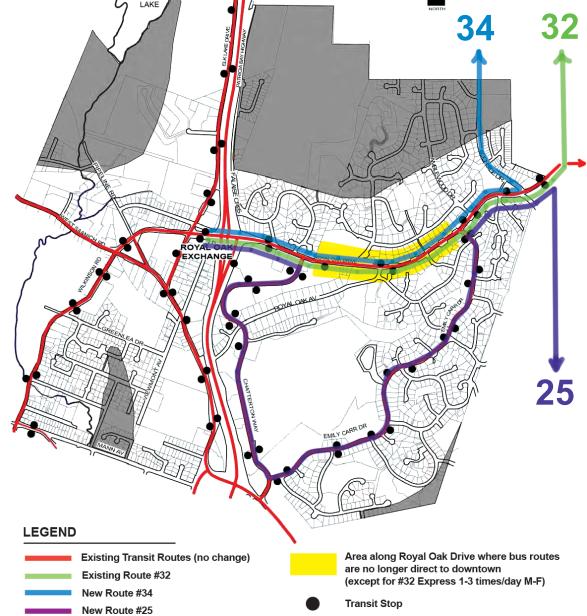
■ Broadmead

Village

McKenzie

expressed its concerns to transit planners at a BARA Board meeting. BARA countered the claim that bus usage in Broadmead is minimal through its own analyses. In February of 2020, BARA wrote to Saanich politicians and the transit Board. In July of 2020, BC Transit staff communicated that the preliminary transit plan had been revised to address key BARA concerns and that Emily Carr frequency of service will not be reduced from current levels as part of the reconfiguration. BARA neither opposes nor endorses the current version of the Local Area Transit Plan. Some areas of Broadmead will benefit from small improvements or even get directto-downtown service not previously present, while bus patrons in a few areas may find themselves walking further or transferring where this was previously not the case. The plan does not call for a major

improvement, but at least on average, things will not get worse.



Royal Oak plaza.

Emily Carr service frequencies will not generally improve most of the day, but there will be a slight improvement during peak hours Monday to Friday. There will also be service from 10 p.m. -midnight.

> "express" runs along the peak hours). A new #34 Royal Oak Drive then up At the time of this writing, BC Transit planned to submit the Broadmead/Cordova Bay Local Area Transit Plan to Saanich municipal council for approval. The exact implementation date has not been announced; it is possible that the changes will be "rolled out" over

Rithet's Bog

Habitat Dugouts – Accidental Habitat Restoration Russ Pym

During the dry summers from 2014 to 2018, Rithet's Bog became exceptionally dry by late summer, so we dug some test pits in the Shallow Fen on the south side of the park to observe how far the water table had dropped below ground level. An unexpected and accidental, but fortunate, consequence was that the water seeping into these pits from the surrounding water table provided refuge habitat for small aquatic species that could not otherwise survive because the rest of the wetland had become too dry. The 2017 photograph shows that these pits were just holes dug deep enough to reach the water table which resulted in water ponding in the bottom. Even in this sterile state, the pits did support populations of aguatic insects. The 2020 photograph shows a significant amount of natural revegetation which improved the



habitat value and expanded the range of species. The aquatic vegetation photograph shows a closeup of water smartweed (the pink flower) and some rushes (the grass like blades). Both of these species are desirable native wetland plants.

While aquatic insects may not sound that interesting, they do form the foundation of the food chain that culminates in some of our more glamorous species such as red-winged blackbirds. Also, some of them prey on mosquitoes. If we want the iconic and desirable species, we need the complete ecosystem that supports them. That is why our restoration



projects are designed to develop functioning habitats and ecosystems. We are currently planning intentional habitat dugouts into our wetland restoration projects to provide drought resistance and climate change resiliency.

One of the major successes of this initiative has been the little green Pacific chorus frog. This frog breeds in shallow seasonal wetlands with complex aquatic vegetation. The advantages of these wetlands are that they do not support the larger predators that would prey on tadpoles and the complex vegetation provides good cover. The disadvantage is that these wetlands often dry up before the tadpoles can metamorphose into adults and survive on land. In recent years, we have observed tadpoles stranded in drying pools. However, in 2019 we observed a clutch of tadpoles in one of the habitat dugouts that did reach metamorphosis when the rest of the wetland was too dry for them to survive.

If you are interested in helping us restore native habitat and ecosystems, we welcome new volunteers. Our volunteer efforts were shut down due to Covid-19, but we now have permission to resume activities. Please view the events schedule here:

www.facebook.com/rithetsbog/



Rat Poison Can Kill Local Owls

Jim Pearson

You are probably aware that Victoria came in at second place in a <u>2019</u> report on B.C.'s. "rattiest" cities; Vancouver was rated number one.

Broadmead has its fair share of rats, and as a homeowner you may have unfortunately already discovered this. There are lots of methods of eliminating these unwelcome guests. Traps and poison have been the most popular. Traps can be messy, and some say they are 'inhumane.'

Poison has been widely used in the past, and although it can be effective at killing rats, it has other serious issues. Most notably, rat poison is typically comprised of brodifacoum. This is known as "super-warfarin" because it lasts longer than typical warfarin. Brodifacoum reduces Vitamin K in the body which leads to decreased blood clotting ability. If clotting ability is reduced significantly, bleeding can occur. If children or adults ingest enough, it can cause serious harm or death.



Owls eat rats. Apparently, up to three per night, so owls are excellent rat killers. But, if an owl eats a poisoned rat it finds on the ground, the owl is then poisoned and can die. This isn't just theory. Three owls died suspiciously in Victoria and Saanich over the past year, and autopsies were conducted in two of the cases. The cause of death in all cases was suspected as rat poison.

With this evidence, members of the community asked Saanich councillors to ban rat poison from municipal facilities. The motion passed in July of 2020. ²The municipality doesn't have the ability to ban the sale of rat poison, but councillors are hopeful the provincial government will do so.

Please do your part: Use appropriate traps to eliminate rats in your home. Don't use rat poison.

Otherwise, you may end up killing the beautiful (rat-eating) owls that inhabit Broadmead.

A COvid-19 Diversion: Make Your Own Mask

A number of people wearing masks at Broadmead Village have chosen personalized designs as you can see below. Unfortunately, not everyone is talented with a sewing machine and can sew masks for themselves; they may have to rely on purchasing masks locally or cajoling friends to make them. On the other hand, they may turn to the internet where they can order masks or see how to make ones which do not require sewing.

Making your own mask may be nice diversion, an "in-bubble" activity, or a chance to exercise creativity.

You can use the following link to see an animated demonstration of how to create the mask, but be aware that the background information is not applicable to us here in BC. Click here for how to make a mask from CNN.

Materials vou'll need

i Bandana, T-shirt or square cotton cloth, about 20" x

20".

ï Coffee filter.

ï Rubber bands or hair-tie.

Make your mask

- 1. Cut the bottom off a folded coffee filter. Keep the top -- you'll need it as the filter in your mask.
- 2. Lay a bandana or $20^{\prime\prime}$ x $20^{\prime\prime}$ T-shirt flat in a rectangle. Fold the bandana or shirt in half lengthwise.
- 3. Fold the cut filter in the center of the folded bandana or T-shirt. Then, fold the top of the bandana or T-shirt down over the filter. Fold the bottom up.





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Saanich Update **Garden suites and Bus Transportation**

Saanich Councillor Susan Brice

Greetings to My Broadmead Neighbours:



You may be aware that Saanich Council has been deliberating on whether to allow garden suites in residential zones. A garden suite is an additional dwelling built in a side or front yard of a principal building. Saanich Council is not including properties in the Broadmead area in their considerations, as these properties have restrictive covenants on title that prohibit development of

secondary suites; garden suites are considered a detached form of secondary suites.

Assisting Council in this decision was a letter from BARA requesting that Broadmead not be included in the rezoning process. There has always been a commitment from those choosing to purchase a home in Broadmead that there are long-established guidelines to ensure the natural ambiance of the neighbourhood.

There is an update on the consultation between transit and the Broadmead community in this issue. As Chair of the Transit Commission, I am aware that many residents would like to have more frequent service in this area. I assure you that Mayor Haynes and I realize this and are advocates for improved transit in underserved areas of Saanich and the region.

It is with this in mind that the Commission has resisted calls for free transit. We need both fare and tax revenues to enhance the transit service and to transition to an electric fleet. Thanks to all participating residents ... together we will bruild a transit service that meets your needs.

A Message: Traffic Study

Saanich Mayor Fred Haynes

Hello BARA Bugle readers!

Broadmead residents, like those living elsewhere in Saanich, have expressed concern about car speeds on residential streets. BARA highlighted this issue emphatically during a board meeting I attended pre-Covid-19. Saanich is pro-actively addressing these complaints by applying to participate in a Motor Vehicle Act pilot project.



Currently, municipalities in British Columbia may enforce speed limits on roadways but cannot change the default speed limits. In November 2019, Saanich council sent a letter to the Provincial Ministry of Transportation to determine the process of reducing residential road speeds. Council then applied to participate in a fall 2020 Motor Vehicle Act pilot project as part of a capital regional program designed to last for three years to reduce the default speed limit from 50 to 40 km/h, on streets without a continuous yellow line. These changes would not affect schools, playgrounds, or other existing posted speed

Council believes that this would reduce operating speeds, improve road safety, and enhance neighbourhood livability. It would reduce risks to those who are walking, using mobility aids, bikes, or scooters. In short, it would make roads in Broadmead, particularly those roads that have no sidewalks safer.

The province's intake for Motor Vehicle Act pilot project initiatives occurs in the fall of 2020. If our application is successful, implementation would occur in the summer/fall of 2021. Council, staff, and I look forward to providing more information as the process moves forward. In addition, we have local works underway across the District to improve road safety such as sidewalk work on Royal Oak Drive.

Stay safe, stay well

A Message from Grosvenor.

SDM Realty Advisors Ltd., Managers of Broadmead Village

To Broadmead Village customers:

We are facing an unprecedented situation together. The coronavirus pandemic has affected our friends, our families, and our businesses.

First and foremost, our hearts go out to anyone who has been either directly or indirectly impacted by the virus. We're inspired by the selfless healthcare workers around the world who are on the front lines working tirelessly to care for people in need.

Secondly, we would like to thank our suppliers and staff who, despite COVID-19, continue to maintain and clean the property, provide fire protection and security, and care for the greenery.

Thirdly, Grosvenor, Broadmead Village's owner, wishes to thank all its merchants.

Many had to close temporarily to adhere to government mandates set to reduce the spread of the virus. All have re-opened according to guidance and are again able to serve our valued customers in compliance with safety protocols. 2020 has been a year like no other. Although crowd limiting has pyrevented us from hosting summer and fall events, rest assured that we remain community minded. Historically, we supported the Broadmead Care Society by donating to their annual golf tournament. Although the 2020 tournament was cancelled, we are pleased to have donated to the society again this year. Plans are underway to partner with other local charitable organizations within the remainder of the year. Finally, we wish to thank you, our customers, who continue to visit our merchants and see to their success.

From all of us at SDM Realty Advisors, please stay safe and we look forward to seeing you at Broadmead Village.













called The Agency.













Tips on How to Build a Pond

Wayne Neuman

The three basic categories of back-yard water features are still pond, waterfall and fountains with several variations and combinations possible.

The most important consideration is determining the ideal location as once selected it is challenging to reposition. Partial to full sun is best if plants and fish are to be incorporated in your design.

Fish require a pond depth of at least ½ metre to overwinter, water plant screening to deter predators, and an aeration/filtration system to maintain water quality. The upside of having fish and plants is they provide enhanced esthetics and sense of tranquility as well as keeping insect larva at bay. Once established, plants don't require much maintenance.

Frequency of pump down and cleaning is usually every 1 – 5 years depending on pond volume, amount/type of pond flora & fauna, amount of overhanging vegetation etc. with shallow ponds requiring more frequent cleaning.

Virtually all water features have a pump to enable aeration and filtration of the water. Pumps are usually 120v but low voltage 12v systems are available for ease of installation however they tend to be underpowered and unreliable. Buy a good quality pump as it will outlast the cheaper units.

Most ponds and waterfalls have black synthetic rubber (EDPM or PVC) liners 0.75 – 1.0mm thick. Black liners, pumps and underwater piping are esthetically pleasing as they create a greater sense of water depth and highlight surface plants and features.

Other optional equipment are filters, straining screens, surface skimmers, lighting and sprays.



Pond design is only limited by your imagination and intended location. There is a plethora of information and ideas on the internet to assist your average DIYer to build in relatively short period of time. It is advisable to browse the various water and irrigation shops in town to survey the various components offered before deciding on final design.

MEMBERSHIP APPLICATION/RENEWAL FORM	
DATE:	One Year (\$15) Two Years (\$30) Three Years (\$45)
NAME:	nber of your familiy who resides in your home may be added to your membership (insert his or her name above).
ADDRESS: _	PHONE: ()
	Pay by PayPal: http://www.broadmead.ca/members/membership/membership-renewal/OR
	Mail this completed form with a cheque to the following address: Broadmead Area Residents' Association, Box 53527, Broadmead RPO, Victoria, BC V8X 4G3