

2. **MITIGATING FLOODING AT RITHET'S BOG**

Notice of Motion from Councillor Chambers from the Council meeting of September 9, 2024.

That staff reach out to the Rithet's Bog Conservancy to determine quick fixes that may mitigate flooding ahead of the Capital Regional District Watershed Plan that are inexpensive and will prevent species extinction and biodiversity loss.

Notice of Motion

Monday, September 9, 2024

From: Councillor Chambers

Call to Action for Rithets Bog

That staff reach out to the Rithet's Bog Conservancy to determine quick fixes that may mitigate flooding ahead of the Capital Regional District Watershed Plan that are inexpensive and will prevent species extinction and biodiversity loss.

Rationale:

In 2023 Saanich produced the "State of Biodiversity" report which identifies Rithets as having "very high biodiversity." Rithets likely has the highest biodiversity of any site in Saanich.

As a result of global climate change our summers are getting longer and dryer. This results in the summer water table at Rithet's getting lower and lower. Systems that historically would be inundated through the summer and into the fall are drying up in June. Drying out wetland habitats during the summer is devastating for these systems. Aquatic flora and fauna simply cannot survive without standing water. If you're a Three-Spined Stickleback (*Gasterosteus aculeatus*) and there is no water, you die. If you are a Pacific Chorus Frog (*Pseudacris regilla*) even an extra week of inundation can mean the difference between a successful brood of tadpoles becoming froglets or the loss of a generation.

Although there is a Capital Regional District watershed program on its way, we cannot wait with climate change and worsening conditions. From PKOLS to Portage Inlet with Rithets Bog in between, these are the most biodiverse areas in Saanich and in Canada. These solutions are expensive and timely. There are some quick fixes that may mitigate drought and prevent species extinction, this Notice of Motion requests staff reach out to the Rithets Bog conservancy stewards for their input and bring back options for quick fixes to save the most biodiverse and important wetland areas in Saanich

The Notice of Motion will be considered at a future Council meeting.

Angela Hawkshaw

From: BARA President [REDACTED]
Sent: Monday, October 28, 2024 10:01 AM
To: Council
Subject: (External Email) Rithet's Bog, Council Agenda Item G.2
Attachments: BARALtrRithetsBogOctober28,2024.PDF; AppendixBARARithetsBog.pdf

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ACKNOWLEDGED		

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Re: Item G.2, Council Agenda October 28, 2024

The Broadmead Residents' Association (BARA) supports the idea that staff be requested to reach out to the Rithet's Bog Conservation Society to determine quick fixes for a serious habitat and environmental degradation problem which threatens the ecosystems in the Rithet's Bog Conservation Park. We believe that the threat is sufficiently serious such that waiting for another five years for the full development of an Integrated Storm Management Plan before any action is undertaken may leave us with the serious loss of native plant and wildlife communities.

We are not of the view that flooding constitutes the problem which needs to be identified; rather, it is the opposite. We seek actions which would "re-wet" the site. If Council were to pass a motion, we would suggest wording such as the following:

That staff begin taking action to improve the hydrology at Rithet's Bog Conservation Park with the goal of re-wetting the conservation area in order to conserve critical wetland habitat from further degradation.

We wish to appear in person. Mr. Larry Stadland will represent BARA in front of Council.

In the Appendix below, we provide more details regarding the problem and its potential solutions.

Douglas Baer
President
Broadmead Area Residents' Association



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BARA

BROADMEAD AREA RESIDENTS' ASSOCIATION

Broadmead Area Residents' Association
 PO Box 53527, RPO Broadmead
 Victoria, B.C. V8X 5K2
info@broadmead.ca

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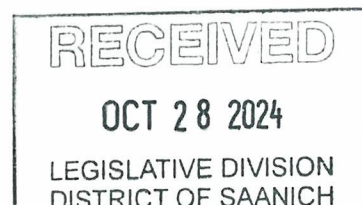
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Douglas Baer
 President
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APPENDIX

Rithet's Needs Water

Rithet's Bog Conservation Park has considerable natural assets, habitats unique to the region, and the highest biodiversity of any site in Saanich. Wetland habitats at Rithet's are facing an existential threat due to longer dryer summers. There are remedial solutions to this challenge that are simple and inexpensive. Preservation and enhancement of Rithet's Bog Conservation Park is a priority as outlined in Saanich's Strategic Plan of being environmental stewards and leaders as well as building a sustainable and resilient community. Prompt action is needed to preserve this unique land and doing so aligns with many of Saanich's long-term strategic plans.

- **Biodiversity Conservation Strategy** – Wetlands are a biodiversity powerhouse fueling a remarkable level of species diversity. In terms of sheer number and variety of life forms sustained, wetlands rival the richness of established biodiversity hotspots like rainforests and coral reefs.
- **Natural Assets** – Rithet's Bog provides many ecosystem services as well as municipal services that the community relies on. Dollar for dollar wetlands provide some of the highest amount of services to our community.
- **Integrated Stormwater Management** – Wetlands have been called the kidneys of the earth, as they provide the capacity to filter out pollutants from our stormwater runoff by slowing down and allowing for natural infiltration of water, thereby improving water quality downstream. In addition, with their ability to absorb and store excess water, wetlands act as natural buffers against floods. This becomes increasingly important as extreme weather events are predicted to worsen with climate change
- **Climate Plan** - Wetlands act as massive carbon sinks, storing more carbon per unit area than any other terrestrial ecosystem.

Given the importance of preserving this land, action is imperative.

Rithet's Bog Conservation Park

Rithet's Bog Conservation Park is a 38.42 hectare nature sanctuary containing some of the last remaining wetland in Saanich. It is zoned P-5, a conservation park. This zoning makes it unlike other parks in Saanich which are zoned P-4, recreation parks (there is one other P-5 in Saanich, Swan Lake Christmas Hill Nature Sanctuary). Rithet's Bog Conservation Park does not have a management plan, but it does have a management mandate. P-5 zoning puts conservation first and recreation second.

In 2023 Saanich produced the report “State of Biodiversity” which identifies Rithet’s as having “very high biodiversity.” Rithet’s likely has the highest biodiversity of any site in Saanich. This claim is a function of its considerable habitat diversity. Rithet’s has:

- Bog Forest. This is an unusual system unique to the island.
- Fens. Rithet’s still has intact fen vegetative communities. These communities are likely the only examples left in Saanich.
- Fresh Water Marshes. Rithet’s still has intact marsh vegetative communities.
- Willow Swamp.
- Shrub-Carr.
- Shallow Open Water Areas.
- Wet Meadows. Rithet’s has marsh/meadows that have not been colonized by reed canary grass (*Phalaris arundinacea*). These communities are some of the last examples left in Saanich that have not degraded.
- Upland Prairie Oak Meadows.
- Prairie Oak Rocky Outcrops.
- Coastal Douglas Fir Forest.
- Transitional Mesic Communities.

Habitat at Risk

As a result of global climate change our summers are getting longer and dryer. This results in the summer water table at Rithet’s getting lower and lower. Systems that historically would be inundated through the summer and into the fall are drying up in June.

Drying out wetland habitats during the summer is devastating for these systems. Aquatic flora and fauna simply cannot survive without standing water, but the most dramatic impact of the lower summer water table though, is the shift in vegetative cover. Wet winters and dryer summers favour three species at Rithet’s, Reed Canary Grass (*Phalaris arundinacea*), Hardhack (*Spiraea douglasii*) and Willow (*Salix* spp). These species share some common traits; they need a dry soil surface for germination, they are extremely vigorous forming monotypic stands, and they hasten terrestrialization and degradation of wetland habitat.

The last ten years have seen dramatic changes in Rithet’s landscape with significant tracts of wetland habitat fully degrading and terrestrializing, but wetland habitat still remains. More importantly, this remaining wetland has intact, native, and biodiverse vegetative communities. If there is no action to improve the hydrologic conditions, these remaining wetland habitats will not remain for long. Once these vegetative communities are lost, they are difficult to re-establish.

Conservation is much easier than restoration.

Possible Solutions

The narrative around addressing hydrologic challenges is that they are complicated and the solutions are very expensive. To the contrary, there are possible actions that could be taken to address Rithet's hydrologic challenges that would be simple to implement and inexpensive:

- **Fix the Weir.** As part of a major restoration in 2002 a weir was installed in the Southwest corner of the park. The intent of the weir was to restore the water table to what was thought to be its historic level. Four years ago, the stop logs were replaced. The replacement was not successful and the weir is not functioning as designed. Currently the winter water levels at the weir are -7cm to -15 cm below the top of the weir and going into the summer the weir is watertight at -28 cm. As we enter our increasingly longer summer season, we start out with the water table down 28 cm at the weir. Over 48 hectares, this equates to a water deficit of over 100,000,000 litres.
- **Decommission Ditches.** Global climate change is the proximal cause of Rithet's lower summer water table. There are also underlying hydrologic problems. Rithet's has a long history of land use and was in agriculture for over 80 years. There are agricultural ditches across the landscape that were installed to convey water out of the system. Many of these ditches are still intact and continue to function as intended. These ditches could be decommissioned restoring the hydrologic function of the wetlands.
- **Block the Central Ditch Culvert.** There is a raised perimeter trail around Rithet's made out of compacted road base. Surface water exits this perimeter through a single culvert at the western down-stream end of the "central ditch." If this culvert was blocked, surface water could only exit by flowing over the trail. This would happen at the trails lowest section which is an approximately 50 metre stretch along the South. This one simple action would have a dramatic effect towards re-wetting Rithet's.
- **Introduce Beavers.** In a natural landscape, wetlands are created and destroyed. The creative process is carried out by beavers. Beavers take down willows and dam up waterways, both which would be highly desirable activities at Rithet's. Often beavers are considered nuisances and removed from properties. Release them at Rithet's.

Conclusion

If Resilient Saanich and the Biodiversity Conservation Strategy is to have meaning it must result in actions. There is an opportunity to conserve critical habitat in a zoned conservation park, but the window for action is closing.

1410-04 Notice of Motion

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Angela Hawkshaw

From: K Whitworth [REDACTED]
Sent: Monday, October 28, 2024 9:49 AM
To: Council
Subject: (External Email) 2024.10.28 - Agenda Item G. 2. - Mitigating Flooding at Rithets Bog - RESENDING

This email sent from outside the District of Saanich. Use caution if message is unexpected or sender is not known to you.

From: K Whitworth [REDACTED]
Sent: Friday, October 25, 2024 5:26 PM
To: Council <Council@saanich.ca>
Cc: Clerksec <Clerksec@saanich.ca>
Subject: (External Email) 2024.10.28 - Agenda Item G. 2. - Mitigating Flooding at Rihets Bog

This email sent from outside the District of Saanich. Use caution if message is unexpected or sender is not known to you.

Council:

I support Councillor Chambers' "Notice of Motion" to mitigate flooding at Rithets Bog.

This "Natural Asset" nature sanctuary requires strong leadership to ward-off any future natural disasters climate change crisis. A small token of support now to mitigate flooding will ensure future generation natural beauty for many more years.

Thank you.

Katherine Whitworth
Royal Oak Resident

Sent from [Outlook](#)

