



**AGENDA**  
**RESILIENT SAANICH TECHNICAL COMMITTEE**  
**November 16, 2023, 7:00 – 9:00 PM**  
**Held virtually via MS Teams**

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In light of the Saanich Communicable Disease Plan related safety measures, this meeting will be held virtually via MS Teams. Details on how to join the meeting can be found on the committee webpage – [Resilient Saanich Schedule, Minutes & Agendas](#). Please note that individuals participating by phone are identified by their phone number, which can be viewed on screen by all attendees of the meeting.

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**1. Territorial Acknowledgement**

**2. Approval of Agenda**

**3. Adoption of Minutes**

- September 28, October 18 meetings

**4. Receipt of Correspondence**

Email added pages 11 - 12, excel document available on agenda page (link above)

**5. Discussion of Draft 2 Gap Analysis (20 min.)**

- Lead: Gap Analysis Working Group [Additional document on pages 22 - 57](#)

**6. Environmental Policy Framework (20 min.)**

- Lead: Tory Stevens, Eva Riccius

**7. Policy Evaluation Tool application to the Development Permit Guidelines (30 min)**

- Lead: Tory Stevens, Purnima Govindarajulu

**8. Review of Ted Lea Correspondence (10 min.)**

- Lead: Brian Wilkes

**\* \* Next Meeting: TBD**

To ensure quorum, please email [megan.macdonald@saanich.ca](mailto:megan.macdonald@saanich.ca) if you are not able to attend.

**MINUTES**  
**RESILIENT SAANICH TECHNICAL COMMITTEE**

Via Microsoft Teams  
September 28, 2023 at 6:02 p.m.

Present: Tory Stevens (Chair); Councillor Zac de Vries; Kevin Brown; Tim Ennis; Jeremy Gye; Purnima Govindarajulu; Stewart Guy; Chris Lowe; and Brian Wilkes

Guests: Mike Coulthard and Alison Kwan of Diamond Head Consulting (DHC); Shannon Berch; Sarah Cooke; David Fraser; Cori Barraclough; Patrick Lucey; Paige Erickson-McGee; Lynn Husted; Eric Higgs; Cara Gibson; Claudia Copley and Del Meidinger

Staff: Eva Riccius, Senior Manager of Parks; Thomas Munson, Senior Environmental Planner; and Megan MacDonald, Senior Committee Clerk

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**TERRITORIAL ACKNOWLEDGEMENT & DIVERSITY, EQUITY AND INCLUSION STATEMENT**

Councillor Z. de Vries read the Territorial Acknowledgement and the Diversity, Equity and Inclusion Statement.

**APPROVAL OF AGENDA**

**MOVED by B. Wilkes and Seconded by K. Brown: “That the Agenda for the September 28, 2023, Resilient Saanich Technical Committee meeting be approved.”**

**CARRIED**

**ADOPTION OF MINUTES**

**MOVED by C. Lowe and Seconded by P. Govindarajulu: “That the minutes of the August 17, 2023 Resilient Saanich Technical Committee meeting be adopted.”**

**CARRIED**

**WORKSHOP WITH TECHNICAL EXPERTS AND DIAMOND HEAD CONSULTING ON BIODIVERSITY CONSERVATION STRATEGY DRAFT RECOMMENDATIONS**

M. Coulthard and A. Kwan of Diamond Head Consulting (DHC) gave an overview of the Biodiversity Conservation Strategy (BCS) Draft Recommendations (document on file). The following was noted:

- A brief overview of the State of Biodiversity and related content and context was given.
- The BCS contains a number of recommendations, there are eight strategic goals.
- Organization of the goals is difficult as many affect multiple theme areas. They are presented in a numerical list; however this does not imply importance or significance.

The Senior Manager of Parks provided the following update on the recent Provincial implementation of the *Housing Act*:

- The Province has recently mandated that Saanich reach 4610 new housing units in the next 5 years, which works out to approximately 900 units per year. Currently Saanich averages about 300 units per year, this is a big goal to reach.
- Mayor and Council are embracing the targets.
- A cross departmental project group has been established to change processes to streamline development. Speed and efficiency will be increased.
- The BCS will need to be aligned with the new housing targets to ensure success.
- Changes may need to be made to the BCS if some aspects create too much conflict.

The following was noted during committee discussion:

- Amending the language to ensure clarity around research of all species versus just that on plants in the corridors is important.
- Having a strategy to acquire and protect natural areas in the habitat corridors is critical.
- Downzoning is one potential tool that local governments can use to ensure that zoning is compatible with the objectives in the identified protection zones.
- Prioritizing property acquisition in riparian areas may be the most useful way to protect flood zones and biodiversity. These areas are the most valuable in terms of protection.
- Downzoning can devalue land; much thought is needed if it is to be considered.
- Protecting current natural areas through acquisition should be the top priority. Corridors, networks and connectivity are important; however, recreating natural landscape along side development needs to be considered as equally important.
- Riparian area protections could be strengthened. The Province mandates standards, however these could be improved upon in many ways including mandating restoration of areas which were previously not riparian through the development permit process.
- Considerations need to be made if mandated restorations are put in place as cost can be prohibitive and long-term success is difficult if spaces are not maintained regularly.
- Identifying priority areas then focusing energy and attention to restoring them really well.
- Ensuring goals are realistic and practical will allow for higher rates of success.
- Areas planted with native species may need more maintenance than ornamental gardens. This could be a barrier to many members of the public.
- A mechanism needs to be in place to monitor areas on an ongoing basis to determine whether a restoration is successful, and to ensure long term success.
- Developers allocating some land as a natural area is a common practice, it could be a little spot with a Garry Oak ecosystem, if not maintained these areas deteriorate.
- There is a potential that the Province will mandate specific measures to increase missing middle housing. This may include additional density on single family lots.
- More foreshore marine development permit regulations need to be included such as stronger setback regulations. The flexibility to consider current high tide line as well as future considerations for sea level rise and modelling is important.

The following was noted related to Objective 4, enhancing biodiversity on public lands:

- There will be a section of the BCS which directs readers to the UFS for specifics related to trees to ensure consistency.
- People are willing to learn and often hungry for information. Community members, volunteers, students, they want to be doing restoration on site. Providing ways for them to implement restoration is low hanging fruit with plenty of meaningful opportunities.
- It is important to acknowledge all the work that is currently done by stewardship groups on public land. There is value in discovering the best way to encourage these groups.
- Choosing the proper native plants for a location when planning and planting is necessary. Ensure that micro-scale plantings always support the local food web.

The following was noted related to Objective 5, encouraging initiatives on private lands:

- Conservation tax incentive programs could be advocated for at the Provincial level to amend the *Local Government Act*. This would allow local governments to implement a Natural Area Protection Tax Exemption Program (NAPTEP) similar to that in the Gulf Islands. When large properties are developed they are able to register a natural state covenant on part of the land in exchange for a tax exemption.
- Discouraging lawns and green grass would contribute to water conservation. There could potentially be incentives for those who are willing to convert lawns to gardens.
- The Metchosin Foundation is a community group of community benefactors who are interested in nature protection that contribute financially to protection of local areas. It may be a good idea to see if the Saanich Legacy Foundation could do something similar.
- Work should be done to promote green shores related initiatives, which could include incentives for removing existing hard structures.
- Natural state covenants can be expensive, especially management and maintenance.
- Municipal natural assets mapping is a valuable tool that should be utilized to inform what value is present and what it would cost to replace potential lost ecosystem services.

The following was noted during committee discussion on overall priorities:

- The policy and recommendations could be improved by a better link to the science and strategic thought behind them. This connection will highlight the necessity for the document and monitoring progress on the goals.
- Preserving organic soil and biology should be more of a priority during development.
- The United Nations Decade on Ecosystem Restoration has brought the urgency of restoring ecosystems to the attention of many.
- Partnerships with universities could be explored to help inform staff and community members with a wealth of knowledge that is current and regional.
- Saanich Peninsula Environmental Coalition recently put together a Bioregional Framework for the Saanich Peninsula municipalities with their OCP updates. The information contained in this document could be a benefit to Saanich.
- Adoption of the open standards for conservation through the Conservation Measures Partnership as a mechanism to determine key ecological attributes would be beneficial. These standards provide a clear methodology utilized worldwide.
- Provincial and Federal conservation targets also need to be considered.
- Adopting a clear vision for what we hope to achieve is necessary. Clear aspirational goals backed by measurable objectives will help foster restoration.
- Ecosystem services or functions and goals related to them should be clearly defined.
- Identifying natural assets and creating a natural asset registry to quantify the financial value of those assets can help with planning on how to invest in restoration priorities.
- Tracking how Saanich ecosystems have changed over time to show what has happened and when it happened serves as a powerful base to mobilize support for the future.
- First Nations and traditional knowledge should have a more prominent inclusion.
- Tracking restoration over long periods of time can highlight progress.
- Access to expertise is imperative, making it easy for members of the community to gain information in a way that is easy to use will ensure they are willing to do so.
- Weed management to maintain biodiversity in wetlands may be a regional initiative.
- Outcomes will be better if we can provide incentives for good behaviour.
- Raising awareness for programs about native plants and pollinators is a great start.

The Senior Manager of Parks asked if any objectives should be identified as more important than others, the following was noted during discussion:

- Worldviews that acknowledge the fundamental interconnectedness of humans and non-humans should be honored as we look to support biodiversity.
- The Urban Containment Boundary is a critical tool to ensure the preservation of biodiversity in rural areas, this should be kept in place and policies strengthened.



The consultants asked for thoughts on how to protect these areas, including the potential for development permit areas, the following was noted during discussion:

- Focusing on features of an area versus mapped areas may be more beneficial.
- The Sensitive Ecosystem Inventory (SEI) mapping may be beneficial for Saanich. A list of clearly defined features such as wetlands may then need further investigation.
- SEI mapping is much more digestible to the general public; however management and updating of these assets can be a challenge.
- Rare and endangered species mapping can also be a challenge. Sharing this data with the CDC may help ensure information is uniform and work is not duplicated.
- Leading by example may be the best way to move forward. Use the current Saanich land that is deteriorating to put on workshops and examples of how to restore land.
- Reasonable targets for all properties can yield benefits, such as the canopy coverage targets, this encourages all residents to plant trees to help reach goals.

### **DISCUSSION OF ENVIRONMENTAL POLICY EVALUATION MATRIX**

The Chair gave an overview of the recent updates to the Environmental Policy Evaluation Matrix (EPEM). The following was noted during discussion:

- Minor amendments were made to bring the EPEM into alignment with the principles of the Environmental Policy Framework.
- The tool is intended to allow policy makers to meet goals and objectives and internalize knowledge to create better policies.

### **DISCUSSION OF DRAFT 2 GAP ANALYSIS**

Committee member K. Brown gave an overview of updated draft gap analysis. The following was noted during committee discussion:

- More rational has been added, as well as work on summarizing policies and bylaws.
- This document can be used as a compliment to the Environmental Policy Filter.
- Information and feedback on the tool are needed to ensure all aspects are addressed.

The following was noted during committee discussion:

- The analysis contains a lot of really useful information. The detail is appreciated.
- A review by staff who create policy would help to ensure usability.
- Earlier documents provided in August were necessary to use the document. Having all the documents combined is necessary, however the document may be large.
- Much of the background information contained in the Gap Analysis may have been better contained as an appendix in the Environmental Policy Framework. The Gap Analysis should strictly relate to gaps in the framework, not background information.

### **ENVIRONMENTAL POLICY FRAMEWORK STAFF REVIEW**

The Senior Manager of Parks gave an overview of the Environmental Policy Framework, the following was noted:

- The Chief Administrative Officer requested a staff review of the document. Staff have provided comment, and revisions are currently underway.
- Staff have requested that the policy framework be a useable high level document, with plans, actions and strategies providing the specific goals and direction.
- There should be a focus on environment related policies and relating this document to the environment pillar in the OCP.
- Some principles and goals are too specific, these may need to be made more general.

The following was noted during committee discussion:

- There is a need for substantive revisions to make it clear that this document fits in as a coordinating document in the OCP, helping to inform many plans and documents.
- Aligning other policies is a good goal for the framework.
- Committee members put significant time and thought into the document thus far. It was shared with staff once the context was included in the draft document.
- Council previously made a Motion to direct Planning staff to consider the draft Principles and Goals for the Environmental Policy Framework in the proposed OCP update.
- Having staff understand the framework will ensure it is used moving forward.

## **ADJOURNMENT**

On a motion from P. Govindarajulu the meeting adjourned at 8:59 p.m.

## **NEXT MEETING**

The next meeting is scheduled for October 18, 2023 at 6:30 p.m.

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Tory Stevens, Chair

I hereby certify these Minutes are accurate.

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Committee Secretary

**MINUTES**  
**RESILIENT SAANICH TECHNICAL COMMITTEE**

Via Microsoft Teams  
October 18, 2023 at 6:32 p.m.

Present: Tory Stevens (Chair); Councillor Zac de Vries; Brian Wilkes; Chris Lowe; Jeremy Gye; Kevin Brown; and Purnima Govindarajulu

Regrets: Stewart Guy and Tim Ennis

Staff: Eva Riccius, Senior Manager of Parks; Rebecca Newlove, Manager of Sustainability (7:00 p.m.); Thomas Munson, Senior Environmental Planner; and Megan MacDonald, Senior Committee Clerk

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**TERRITORIAL ACKNOWLEDGEMENT & DIVERSITY, EQUITY AND INCLUSION STATEMENT**

Councillor Z. de Vries read the Territorial Acknowledgement and the Diversity, Equity and Inclusion Statement.

**APPROVAL OF AGENDA**

**MOVED by B. Wilkes and Seconded by K. Brown: “That the Agenda for the October 18, 2023, Resilient Saanich Technical Committee meeting be approved.”**

**CARRIED**

**RECIPT OF CORRESPONDENCE**

One piece of correspondence was received. During committee discussion it was noted that the information, goals and recommendations are important and further discussion by the committee is needed on these topics. The correspondence has been forwarded to the consultant.

**DISCUSSION OF ENVIRONMENTAL POLICY EVALUATION MATRIX**

The Chair gave an overview of the recent updates to the Environmental Policy Evaluation Matrix The following was noted:

- The revised matrix was shared with the committee in September.
- Staff have advised that the eight-page document was too complicated to use.
- Given this feedback the working group was able to reduce the size of the document, however detail was lost in doing so.
- Additional details had allowed for consistency across departments. Loosing this level of detail is not ideal, however the updated format is simpler and easier to use.

The following was noted during committee discussion:

- There could be additional wording related to science-based information.
- Bioregional scale needs to consider other municipalities. Having specific and meaningful steps to consider the principal of a bioregional scale is important.
- Having both the shortened more recent document as well as the previous more wholesome document would be preferable.

- The working group has offered to set up a training session to help staff become more confident in using the document. Applying the filter to policies should not be a cumbersome ordeal, it should be quick and easy across the board.
- The goal is for staff to consider these principals and have these considerations brought into all policies and goals at an early stage.
- Testing this filter on a policy is the next step, it was proposed to run the draft Development Permit Guidelines through the filter during the November meeting.
- Council requested this as one of the deliverables through the Resilient Saanich process.

## **DISCUSSION OF GAP ANALYSIS**

Committee member K. Brown gave an overview of the recent updates to the Gap Analysis. The following was noted during discussion:

- The final version of this document could be included as an appendix on the Environmental Policy Framework (EPF) document.
- Identifying current gaps is an important part of improving environmental protection.
- The detail in the original draft version compiled by staff in 2020 was not transparent or digestible. A more fulsome discussion on analysis and categorization was needed.
- Linking the environment to policy, and what an assessment of adequacy means needed to be further described. Many of these concerns have now been addressed.
- Saanich policies and bylaws have been investigated; the tables have been updated to include more detail. The underlying details have been included in a meaningful way.
- Having this document as a standalone appendix to the EPF seems to be ideal.

The following was noted during committee discussion:

- The document lays the groundwork for prioritization of future actions.
- Aspects of categories where each policy may affect a component of a natural environment are included. This is important for understanding where policies may not offer sufficient environmental protection.
- Many threats and stressors are emerging. There may be issues elsewhere that could eventually affect us that we should be considering when creating local policy.
- Identifying the major areas that need policy protection is important.
- Having more references to the EPF strategic direction, goals, principles and thematic areas is essential in this document. Tying these two documents together will highlight the importance of the gap analysis and better support the EPF.
- It may be valuable to have an informal checklist to assess what aspects of the environment are affected or not adequately protected by each policy.
- Committee members discussed a working group which can review the document and provide feedback. This document will be reviewed, updated and included on a future agenda for the committee to discuss and make a decision on next steps.

## **DRAFT UPDATED DEVELOPMENT PERMIT AREA DESIGN**

The Manager of Sustainability presented information on the update to the Development Permit Area Guidelines (PowerPoint on file) and made the following comments:

- The *Local Government Act* provides authority for to designate DP Guidelines to establish form and character objectives and to designate areas of land as development permit areas (DPA) for certain purposes. DPAs must specify guidelines for how proposals in that area can address the special conditions or objectives of the DPA.

- DP Guidelines support staff in an efficient review of applications, as well as provide direction and guidance to applicants, review committees (e.g., Advisory Design Panel) and Council to support a common understanding of expectations.
- The guidelines should be educative, descriptive, consistent and clear on intent.
- The existing Saanich Development Permit Areas (DPA): Justification and Guidelines document is a patchwork of Development Permit Areas (DPAs) and guidelines that have not undergone a comprehensive review since before the Official Community Plan (OCP) was approved in 2008.
- Since that time there have been a lot of policies and plans approved by council including the 2008 OCP and multiple planning documents that contain design guidelines, such as garden suites which have their own design guidelines.
- The purpose is to develop a simplified, consolidated Guidelines document that is aligned with the OCP and recent policies, plans and bylaws that have been approved by Council. This goal is a harmonized, easy to use document with clear language, explanatory visual illustrations, and alignment with other goals.
- The guidelines will be updated more frequently as new policies are approved.
- The new simplified and consolidated document will improve efficiency and aid staff in achieving targets as laid out in various plans.
- A descriptive (vs prescriptive) approach has been taken, with clear statements of design intent including strategies and best practices for implementation.
- More prescriptive guidance such as metrics have been added, for built form, scale, orientation and relationship to public spaces. A more descriptive and educative approach was taken for character, composition, and site planning.

The following was noted during committee discussion:

- The document is clearly laid out and digestible, which is appreciated by members.
- The Garden Suite Design Guidelines include a clear definition of the difference between “shall” and “should”. This detail is greatly appreciated; however, it was noted that environmental aspects and bird friendly design suggestions are typically “should”.
- The guidelines are one planning tool, having a descriptive approach is complimented by bylaws and policies to ensure minimum standards are met while allowing flexibility.
- Many of the design guidelines are suggestions, such as materials.
- Policies and plans can engage the community, on many levels. The Design Guidelines work to achieve the goals of these plans without being overly prescriptive.
- This is a living document, as new plans and policies are approved the guidelines will be reviewed and updated as necessary. Once the Urban Forestry Strategy, Biodiversity Conservation Strategy and other important documents are finalized the Design Guidelines can be updated to incorporate the information.
- Developers can use the guidelines to ensure that any proposals brought forward check as many boxes as possible to increase the support from Council and the community.
- Critical policy objectives can be supported by the guidelines in a meaningful way.

## **DISCUSSION OF ENVIRONMENTAL POLICY FRAMEWORK**

The Chair gave an overview of the updates to the Environmental Policy Framework (EPF). Members were invited to provide comments, the following was noted during committee discussion:

- Currently there are a number of items which need to be completed, including the draft glossary, environmental policy evaluation tool and the gap analysis.
- The framework needs to be completed by December.

- Once work on the EPF is completed and endorsed by the committee it will be forwarded to staff for information. The document will be added as an appendix to a staff report, which will then be considered by Council.
- Staff will have the choice to endorse the document as presented, endorse the document with suggestions for further refinement or to provide alternate direction.

### **RSTC SCHEDULE OF WORK FOR NOVEMBER-DECEMBER**

The Senior Manager of Parks gave an overview of the schedule of work for November and December (PowerPoint on file). The following was noted during discussion:

- The Provincial Government has recently passed the *Housing Supply Act*, which mandates housing targets for Saanich. This act also enables the Province to take certain actions if targets are not achieved. Staff will review all Resilient Saanich documentation to ensure alignment with these targets.
- December will be the final meeting of the committee; all documents should be wrapped up and endorsed by the committee by the December meeting.
- Staff will continue work with the consultant to finalize documents and prepare the staff report for Council consideration.
- The committee expressed interest in having the complete BCS document promptly, however it was noted that the table is the priority interest to committee members.

### **ADJOURNMENT**

On a motion from J. Gye the meeting adjourned at 8:31 p.m.

### **NEXT MEETING**

The next meeting is scheduled for November 16, 2023 at 6:30 p.m.

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Tory Stevens, Chair

I hereby certify these Minutes are accurate.

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Committee Secretary

**From:** [Thomas Munson](#) on behalf of [biodiversity](#)  
**To:** [Megan MacDonald](#)  
**Subject:** FW: (External Email) State of Biodiversity Data  
**Date:** Wednesday, November 15, 2023 1:29:58 PM  
**Attachments:** [Saanich Biodiversity Data Sep19 2023.xlsx](#)  
[SaanichMap Biodiversity Sep19 2023.pdf](#)

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For RSTC agenda;

Thomas

**Thomas Munson, MSc., P.Ag.**

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**From:** Anita Bull [REDACTED]  
**Sent:** Thursday, October 19, 2023 8:35 PM  
**To:** biodiversity <biodiversity@saanich.ca>  
**Subject:** (External Email) State of Biodiversity Data

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

Resilient Saanich Technical Committee

I've attached information I obtained through a FOI request, which provides all the data that Diamond Head had collected in their fieldwork for the State of Biodiversity Report. It seems to me this information was not available when the State of Biodiversity Report went to Council.

Has the RSTC assessed this data for its usability?

The FOI material included the following explanation from Saanich staff.

The GIS Section has completed preparing the data. I have attached a map showing an ID which corresponds with the data record in the spreadsheet for that ID. The map is 36 x 36" so you can open in Adobe Reader and zoom/pan in and around the map. The map is for general information purposes and should not be considered authoritative for any purpose. Accuracy, currently and precision is not guaranteed. Please note that the Tree Species and Regen Species columns do not include specific metadata elements as it was not provided.

Anita Bull



Saanich  
**District of Saanich  
Natural Areas  
Biodiversity Field Data**

0 0.25 0.5 1 Kilometers

1:18,000

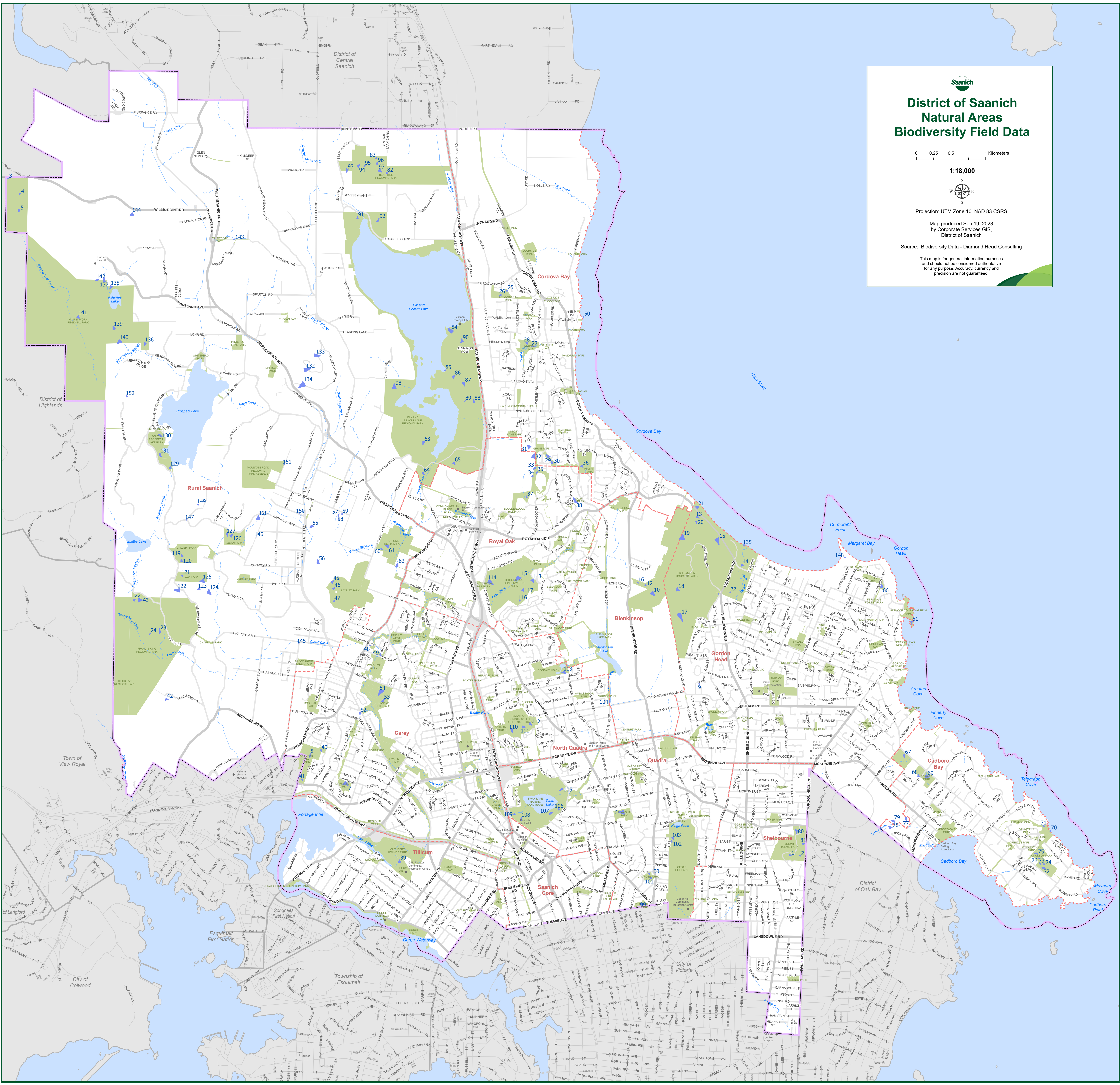


Projection: UTM Zone 10 NAD 83 CSRS

Map produced Sep 19, 2023  
by Corporate Services GIS,  
District of Saanich

Source: Biodiversity Data - Diamond Head Consulting

This map is for general information purposes  
and should not be considered authoritative  
for any purpose. Accuracy, currency and  
precision are not guaranteed.





## **Application of the Gap Analysis Tables (prepared by Kevin Brown) to identifying Policy Gaps.**

### **The Gap Analysis Working Group**

The working group has identified both a forward and a backward process for identifying and exploring gaps using the tables prepared by KB. Both benefit from the spreadsheet of bylaws and council policies prepared by KB. This spreadsheet uses the codes identified in the table of Natural Environment Components and the table of stressors and threats.

The work to date outlines the components necessary for a thorough gap analysis. We recognize that the tables can be modified to suit the needs of Saanich and that the spreadsheet is incomplete. We have neither the time nor the resources to complete the scan of policies but know that the expertise to do so resides in Saanich staff.

Note: Policy, as used here, includes policies, bylaws, regulations, strategies, guidelines and other appropriate directives from Saanich.

#### *Forward Looking steps*

The following steps can be followed to examine the adequacy of current policy with respect to the environment. This could be a search based on a specific hypothesis or a general search to look for gaps related to all components of the natural environment. Two tables are attached illustrating the specific hypotheses: What is the adequacy of Saanich policy instruments addressing outdoor lighting effects on biodiversity? What policy instruments mitigate the negative effects of urban noise on human and other life?

1. Define what comprises Saanich's natural environment in appropriate breadth and detail. [One example had been prepared by KB and distributed previously.]
2. Document existing and emerging stressor/threats to Saanich's natural environment. [One example has been prepared by KB and distributed previously.]
3. Identify (and assess) existing Saanich policies meant to protect the natural environment and other policies which may damage the natural environment. [A significant start has been prepared by KB including a spreadsheet of all bylaws and council policies and assorted guidelines and strategies.]
4. identify aspects of Saanich's natural environment not currently or adequately addressed by policy.
5. Link information from environment, stressor/threats, and policies to facilitate items 3 and 4.

#### *Backward Looking steps*

1. Identify a gap from general knowledge of Saanich's approach to environmental management.
2. Use the table of natural environment components to identify those affected by the gap.
3. Use the table of stressors and threats to identify those that impact the natural environment components.
4. Search the spreadsheet of existing policy to see a) what is existing that applies either directly or indirectly; b) if any existing policies contradict one another.

The working group came up with a list of 12 gaps based on our immersion in Saanich policy over the last several years. Attached is a table linking those gaps to relevant natural environment components and stressors and threats.

### The District has no policy to address outdoor lighting effects on biodiversity

Only specific references found for light effects on biodiversity were references to light and birds in Uptown-Douglas Corridor Plan (2022) Development Permit Guidelines (draft 2023). Restrictions specifically reference effects of light pollution on operations at the observatory. Other policies could be extended to explicitly address impacts of artificial lighting on non-human biota

#### The District has no policy to address outdoor lighting effects on biodiversity

<u>policies</u>	<u>type</u>	<u>#</u>	<u>year</u>	<u>notes</u>
Land Use & Development Procedures Bylaw	B	9650	2020	only inferred as part of ESR (not required)
Official Community Plan Bylaw	B	8940	2008	
Subdivision Bylaw	B	7452	1995	sets std for streetlighting as part of subdivision- only reference to biodiversity: trees can't be planted w/in 1.5m; scheduled
Zoning Bylaw 8200	B	8200	2003	prevents direct rays of outdoor lighting onto adj properties; regulates outdoor lighting with respect to observatory- no
Boulevard Tree Policy	CP	88/CW	1988	inferred- restricts planting of boulevard trees near infrastructure; pruning to "accommodate sunlight"
Community Grants Program	CP	13/CNCL	2013	indirect- could support hyper-local initiatives to enhance or steward public spaces or contribute to community vibrancy
Environmental & Social Review Process Policy	CP	92/CW	1992	implied- could require assessing light pollution- but vague and implications unclear
Environmental Impact Assessment on Municipal Properties	CP	96/CW	1996	implied- suggests Engineering consult with "environmental advisory committee from time to time" regarding requirements
Outdoor Lighting - Regulations for Areas Associated with Municipally Controlled Buildings & Structures	CP	92/CW	1992	regulates outdoor lighting near the observatory- no ref to biodiversity
Street Lights	CP		1978	policy to request sodium luminaires
Subdivision Applications (Panhandle Lots) Reduced Frontage	CP	99/321	1999	indirect- refers to "overshadowing" "blocking sunlight" "plant landscape screens"
Climate Plan (2020)	OS		2020	refers to energy-efficient lighting, not effects on natural environment
Development Permit Guidelines (2008)	OS		2008	2023 draft-P24 refers to minimizing light pollution and impact on urban wildlife; p44, p119 refers to light pollution and for humans
Gordon Head Action Plan	OS		1999	references light as amenity, not with respect to biodiversity
Local Area Plans	OS		2023	*
Official Community Plan	OS		2008	
Shelbourne Valley Action Plan (2017)	OS		2017	references daylighting Bowker Creek; "minimize light pollution"

South Wilkinson Valley Action Plan	OS	2002	suggests street lighting be restricted and conform to municipal "outdoor lighting standards to control light pollution" (e
Tillicum Burnside action plan	OS	2005	references retaining natural light on streets and streetscape lighting as amenity- no reference to biodiversity
Uptown-Douglas Corridor Plan (Draft, 2019)	OS	2022	refers to daylighting Ceceilia Creek "appropriate lighting" with respect to public areas; reduced light pollution with resp shade trees
West Saanich Road Streetscape Action Plan	OS	2005	refers to street lighting of appropriate design (not referring to biodiversity)

### The District has no policy to mitigate the negative impacts of urban noise on the health of humans and other life

There are a number of policies which note or otherwise address very specific aspects of noise pollution. None specifically address effects of noise on non-human biota.

<u>Policy</u>	<u>type</u>	<u>#</u>	<u>year</u>	<u>notes</u>
Animal Bylaw (amended 2023)	B	9924	2023	owners can be fined if dog (or other pet animal) makes nuisance-causing noise (applicable to humans not other biota)
Blasting Bylaw	B	6821	1992	restricts time of blasting- implies noise as issue, but not explicitly
Fireworks Regulation Bylaw	B	8865	2007	restricts who what when where for fireworks; doesn't mention noise specifically
Land Use & Development Procedures Bylaw	B	9650	2020	all applications for rezoning may require an environmental and social review; noise not specified
Noise Suppression Bylaw	B	7059	1993	regulates noise as nuisance to humans, not other biota
Official Community Plan Bylaw	B	8940	2008	
Parks Management and Control Bylaw	B	7753	1997	restricts who can make noise with respect to music etc- in context of disturbing other humans using the park
Streets & Traffic Bylaw	B	8382	2002	intended to restrict unnecessary noise from vehicles- implication is for disturbance to humans, no reference to biodiversity
Truck Route Bylaw	B	6346	1989	implies but doesn't specifically state retrictions are intended to reduce truck noise
Zoning Bylaw 8200	B	8200	2003	restricts some activities which cause noise- restrictions depend on zoning
Community Grants Program	CP	13/CNCL	2013	no specific reference- could apply to community data gathering and mapping
Environmental & Social Review Process Policy	CP	92/CW	1992	implied- could be required- but vague and implications unclear
Environmental Impact Assessment on Municipal Properties	CP	96/CW	1996	implied- suggests Engineering consult with "environmental advisory committee from time to time" regarding requirements for environ
Sound Barriers in Saanich - General Approach	CP		1992	noise barriers may be considered as solution to reducing traffic noise- does not specify emphasis on humans or other biota

Active Transportation Plan	OS
Tillicum-Burnside Action Plan	OS
Climate Plan	OS
Development Permit Guidelines	OS
Gordon Head Action Plan	OS
Garden Suite Guidelines	OS
Official Community Plan	OS
Shelbourne Valley Action Plan	OS
Uptown-Douglas Corridor Plan	OS

- 2018 identified traffic speed and noise as issue for pedestrians
- 2005 consultation comment identifies traffic noise as issue but action plan doesn't otherwise address
- 2020 suggests noise problems can be addressed by higher-performance (energy-use) buildings and increase in proportion of vehicles which a
- 2008 (draft update 2023)- references building siting and design to minimize noise from outside traffic and building operations. Refers to "pub
- 1999 notes traffic noise interferes with walking; street trees can help abate noise
- 2020 see development permit guidelines above
- 2008 see references in development permit guidelines above (draft 2023)
- 2017 suggests building setbacks to minimize noise from traffic
- 2022 notes traffic calming can reduce noise pollution (p. 162, glossary)

Gaps in Saanich Policy, Strategies, By-laws, Regulations, etc. (and how they relate to Kevin’s proposed gap analysis technique)

Gap	Component of Natural Environment	Stressor or Threat	Other comments
<p>1. There is no District Species-at-Risk management plan. This gap may be addressed in the forthcoming BCS.</p>	<p>Ecosystems - terrestrial</p>	<p>Loss of ecosystem types, Fragmentation, Invasive species Loss of soil biodiversity</p>	<p>Brian: There is no reference to loss of species at risk as a threat. This gap is important but might not be identified using Tables 1 and 2</p>
<p>2. There remain gaps of accuracy and comprehensiveness in the District’s environmental mapping. RSTC called for new mapping in March 2022</p>	<p>Abiotic: water – fresh and marine, soil – native and urban Ecosystems – Terrestrial, freshwater and coastal/estuary</p>	<p>Stressors are many: loss of ecosystem types, fragmentation invasive species, loss of habitats, direct disturbance, disrupted hydrology, loss of native vegetation, others</p>	<p>Brian: Main consequences of inaccurate mapping are a mis-informed public, misallocation of land uses and poor decision-making. This gap is crucial to fill but would not likely be identified using Tables 1 and 2</p>
<p>3. There is a lack of policy and management plans to reduce biodiversity loss due to hyper-abundant mammals, such as deer, rabbits, <i>feral?</i> cats and dogs. <i>Can we add rats and raccoons?</i></p>	<p>Ecosystems - terrestrial</p>	<p>Habitat loss? Predation? (Not listed in the stressors list.) Its not clear specifically how these hyper-abundant critters cause a decline in biodiversity.</p>	<p>Brian: Lets try to find evidence to support the assertion that biodiversity loss can be traced back to these species. If they fill an empty niche, then they <i>add</i> to biodiversity. Maybe grey squirrels through competitive exclusion?</p>

<p>4. There is no regulation protecting biodiversity on private property.</p>	<p>Native species and ecosystems</p>	<p>Land use conversion; placement of buildings, roads, trails; increased impermeable surfaces; excavation; invasive species; mature tree decline, mortality and removal; top soil removal; application of chemical fertilizers and pesticides; loss of native vegetation</p>	<p>Brian: This gap is what the stewardship program was meant to address. Regulating this will be fraught.</p>
<p>5. There is no policy explicitly addressing biodiversity conservation/enhancement on public right-of-ways and boulevards.</p>	<p>Native species and ecosystems; fragmentation; urban forests, coastal sand; marine shore</p>	<p>Traffic infrastructure; impermeable surfaces; invasive species; mature tree decline, mortality, removal; application of chemical fertilizer and pesticides;</p>	
<p>6. The District lacks adequate assessment data and understanding of the functional condition of its priority ecosystems and water ways.</p>	<p>Native ecosystems including terrestrial, freshwater and marine</p>	<p>Loss of area of ecosystem types; mature tree decline, mortality and removal; disrupted channel morphology, extreme temperatures, invasive species, extreme flow variation; loss of riparian overstory; length of shoreline hardening</p>	
<p>7. The District has no soil conservation policy associated with development works on either private or public lands.</p>	<p>Soil abiotic, native &amp; urban</p> <p>Water abiotic, freshwater &amp; groundwater</p> <p>Terrestrial ecosystems, native, agricultural, urban forest, urban backyard/ROW</p> <p>Freshwater ecosystems</p>	<p>Pollutants via surface and groundwater runoff from localized, imported or disturbed contaminated soils</p> <p>loss of natural filtering and flow moderation/replenishment ability</p> <p>Reduced fertility, soil biodiversity, permeability, and altered hydrology</p>	
<p>8. The District has no policy to address outdoor lighting effects on biodiversity.</p>	<p>Light, ALAN</p>	<p>Affects various species (including humans) natural diurnal behaviours</p>	

<p>9. The District has no policy to mitigate the negative impacts of urban noise on the health of humans and other life.</p>	<p>Sound</p>	<p>Affects various species (including humans) natural behaviours, including finding prey, mates, etc.</p>	<p>Chris: Adequate vegetation can help muffle sounds and prevent longer range dispersion of noise, as can a reduction in hard surfaces</p>
<p>10. There is no policy to enforce more sensitive siting or design of building footprints to maximize biodiversity and tree conservation on private property.</p>	<p>Water Soil Terrestrial ecosystem? Urban forest "backyard" ecosystem</p>	<p>Water-Disruption of flow, replenishment Soil- Reduced fertility, soil biodiversity, permeability, and altered hydrology Terrestrial ecosystem- Loss of area, Fragmentation, Disrupted moisture availability Urban forest- Mature tree decline, mortality, removal; inadequate tree replacement; insufficient soil volume; disrupted hydrology; poor soil quality Backyard ecosystems-loss of area; loss of native vegetation; reduced soil quality and quantity</p>	
<p>11. There is a lack of measurable outcomes, timelines, resourcing and metrics for many of the District's existing environmental policies and strategies.</p>	<p>Likely true for every component of natural environment listed</p>	<p>See list of stressor/threats- Proximate Global</p>	
<p>12. There is no private land stewardship program to encourage and assist property owners to enhance 'backyard' biodiversity. (does not exclude front yards)</p>	<p>Ecosystems – terrestrial Abiotic – soil, air temperature</p>	<p>Moderate extreme temperatures with shade trees Reduce or eliminate invasive species Improve soil quality</p>	<p>Private land stewardship is all on the positive side of the ledger if enhancements are done with native species. This is a policy gap, but not easy to fit with Tables 1 and 2.</p>





RSTC EPGA2.0 Report  
10 November 2023 Draft- Kevin Brown

## 0.0 Summary (including Conclusions and Recommendations)

### 1.0 Introduction

The Environmental Policy<sup>1</sup> Gap Analysis (EPGA) is central to the Environmental Policy Framework (EPF). Municipal policies may (1) intentionally seek to protect the natural environment, (2) incidentally address and benefit components of the natural environment, or (3) even conflict with stated desires to protect the natural environment. Over time, gaps or conflicts in policies protecting the natural environment may arise as new data or issues emerge, as community values evolve, and as policies accumulate. An EPGA is a way to periodically take stock of gaps and conflicts in municipal environmental policy.

An EPGA should identify if and how different components of the natural environment are addressed by existing policy, assess their effectiveness or impact, and guide policy improvement or development to address those gaps. An EPGA should facilitate policy analysis and communication within the District and broader community. It should be a “living” document, updated as policies change and understanding of local environmental issues increases.

More specifically, the EPGA should:

1. be thorough and systematic
2. define what comprises Saanich’s natural environment in appropriate breadth and detail
3. document existing and emerging stressor/threats to Saanich’s natural environment
4. identify (and assess) existing Saanich policies meant to protect the natural environment and other policies which may damage the natural environment.
5. identify aspects of Saanich’s natural environment not adequately addressed by policy.
6. link environment, stressor/threats, and policies to facilitate items 3 and 4.

The powers of municipal government are limited to those granted by senior levels of government. That may constrain policy options for municipal government. Hence, assessments of the “adequacy” of municipal policies should explicitly note those constraints.

RSTC has proposed gap analyses for individual thematic policy areas. A functional higher-level EPGA will complement and not conflict with individual thematic area gap analyses. A functional EPGA could better identify policies with multiple environmental benefits (or impacts) and confirm what components of natural environment are not addressed by existing policies. Conversely, individual thematic area gap analyses can provide more detailed analyses suitable for a given policy area.

A well-constructed list of natural environment components and potential threats can also provide a checklist to aid in environmental assessments of “non-environmental” policies and specific projects.

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<sup>1</sup> By “policy”, we refer to legislation, regulations, policies, strategies, guidance, or any other documents formally recording policy decisions approved by Council (e.g., Government of British Columbia. 2020. Policy approaches handbook [https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/regulatory-reform/pdfs/policy\\_approaches\\_playbook.pdf](https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/regulatory-reform/pdfs/policy_approaches_playbook.pdf))

The existing draft EPGA (EPGA2020) was prepared by staff in late 2020 and briefly reviewed by RSTC at that time but not revised. Given the subsequent development or revision of related policies and reports<sup>2</sup>, recent changes in provincial government legislation to increase housing density<sup>3</sup>, and research done by RSTC members during the Resilient Saanich process, it seemed timely to re-examine EPGA2020.

Suggested revisions to EPGA2020 are itemized in Appendix EPGA\_1. Briefly, the breadth and detail of “natural environment” and stressor/threats should be made more complete and appropriately detailed; the list of Saanich policies that affect the natural environment (and how) should be more comprehensive; the links between specific policies and components of environment clearer; and the assessment of how “adequate” policy is more transparent. This report suggests updates to make EPGA2020 more complete, transparent, useable, and updateable.

This report proposes a revised approach to the EPGA and includes:

1. Review of EPGA2020 and suggested revisions (Appendix EPGA1)
2. Tables containing (a) suggested updated components of the Saanich “natural environment”, and (b) associated stressors/threats, (c) a table summarizing key points from each policy as it relates to natural environment, and (d) spreadsheet listing Saanich policies and showing their links to components of natural environment. One worksheet from the spreadsheet is included here; a final copy of the spreadsheet itself will be attached separately with the final report.
3. This cover document which explains spreadsheet components and how they are linked, including examples; how policies might be assessed; and suggested next steps.

This report is not a completed revised EPGA. The list of policies and how to assess them is incomplete and the report does not attempt to summarize the condition of the natural environmental components or the magnitude or severity of stressors/threats, nor does it identify what policies should be prioritized. Those assessments are essential but require data which may not exist. By providing a clear sequence of steps, underlying rationale, and specific “to-dos”, we hope that the report will lead to the timely completion of a more useable and updateable EPGA that benefits both District staff and the broader community.

## **2.0 Components of the EPGA spreadsheet**

### **2.1 Natural environment and potential stressor/threats (Tables 1 and 2)**

#### ***2.1.1 Definition of “natural environment”***

Defining “natural environment” and identifying its components of “natural environment” is a necessary first step in linking environment, stressor/threats, and Saanich policies. What should be included in “natural environment” and how should it be represented?

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<sup>2</sup> For example, State of Biodiversity; State of Urban Forest; Biodiversity Conservation Strategy; Urban Forest Strategy; Official Community Plan; Animal Bylaw; Development Permit guidelines

<sup>3</sup> More small-scale, multi-unit homes coming to B.C., zoning barriers removed. Updated Nov. 2, 2023. <https://news.gov.bc.ca/releases/2023PREM0062-001706> (accessed 2 Nov 2023)

The RSTC discussed (April 2023) but has not finalized what “natural environment” should include in the context of the EPGA and EPF. “Natural environment” could include: (1) abiotic factors necessary for life (2) physiography arising from planetary processes (3a) biota and ecosystems that occurred on southern Vancouver Island pre-European settlement and still could given adequate habitat; (3b) species which are introduced and which provide ecological goods and services (e.g., non-native trees) and which may become “naturalized”; (3c) species whose natural range may expand to southern Vancouver Island with climate change.

Non-native “invasive” species do not fit neatly with this definition. Invasives provide ecological goods and services but are, by definition, a threat to native species and may provide fewer and different ecological goods and services than do natives. We consider invasive species to be a stressor/threat to native ecosystems but recognize that their roles and potential benefits may differ in future “novel” urban environments.

Natural environment (1) contrasts with the modern built environment, i.e., infrastructure made from relatively permanent human-manufactured materials and (2) is outside of human structures. We note that human structures and activities may be well-integrated with the natural environment or relatively disconnected and with significant impacts on ecosystem processes and biodiversity.

### **2.1.2 Components of natural environment (Table 1; worksheet not attached):**

For the purposes of the EPGA, components of natural environment should (1) cover the breadth of what makes up “natural environment” (2) be understandable and (3) be linkable to ecological processes and to policy. The number and specificity of components comprising the natural environment is arbitrary and a compromise between detail and useability. Hence, they can be modified as needed.

We suggest specifically acknowledging abiotic components of the natural environment in addition to biodiversity and ecosystem-level components. Reasons<sup>4</sup> include:

- (1) Inappropriate levels of abiotic factors directly impact both public health and biodiversity and ecosystem functions and may also indirectly affect public health through impacts on biodiversity and ecosystems. However, levels of abiotic factors suitable for humans may be unsuitable for other organisms and vice versa. These nuances are best acknowledged in policy when both abiotic factors and biodiversity/ecosystems are explicitly recognized.
- (2) Historically, environmental protection focused on how the condition of the abiotic environment affects public health. That emphasis is still important, especially for community members with the greatest exposure to pollutants, noise, etc. Some Saanich (and CRD) policies or bylaws address aspects of air and water quality, sound, light, and soil, but in the context of public health, not biodiversity protection.

That said, the abiotic environment is part of ecosystems, not separate. This separation results in some redundancy in the worksheets.

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<sup>4</sup> Kevin Brown, RSTC meeting agenda package 28 June 2022 pp 9-18  
<https://www.saanich.ca/assets/Local~Government/Documents/Committees~and~Boards/RSTC/Agendas/2022~Agendas/2022-06-28-RSTC-REVISED%20%20Agenda.pdf>

Ideally, ecosystem/biodiversity components in the EPGA should be consistent with those (target categories) in the SOB report and BCS. However, the EPGA has a somewhat different emphasis and the same information may be better categorized differently<sup>5</sup>. Table 1 and the associated worksheet:

1. combine the SOB target categories of “Coastal Douglas-fir Forests” and “Garry Oak Ecosystems” into a single category of native terrestrial ecosystems.
2. separate agricultural ecosystems from the SOB “Backyard Biodiversity” target category, and
3. recognize urban forests as a category distinct from native terrestrial ecosystems and backyard biodiversity.

These distinctions are arbitrary and they overlap. However, protection and management of coastal Douglas-fir and Garry oak ecosystems share common high-level stressor/threats and are addressed by the same municipal policies. Other terrestrial groupings have unique combinations of disturbance and fragmentation, distribution, proportions and distribution of native and non-native vegetation, land ownership, and they differ in how they can be managed and regulated by the municipality.

**Groups proposed here could be subdivided for more detailed thematic or policy area analyses.** As a first cut, however, these categories seem appropriate for connecting environment, stressors/threats and policy at a high level but could be revised as needed.

Table 1 and worksheet 1 do not list indicators for components of the natural environment. These need to be determined and suitable supporting data collected. Appropriate indicators are required to assess policy effectiveness and for Saanich to properly assess its “natural assets” (see below). Data collected for the 2023 SOB and SUF reports should aid in selecting appropriate indicators.

This spreadsheet does not account for spatial variation. However, all components (and stressor/threats) can be represented spatially. The SOB and SUF process updated digital maps of ecosystem and urban forest distribution. Similarly, abiotic components of environment could be mapped<sup>6</sup> (Appendix EPGA\_2); this requires collection of appropriate data, along with resources to add and integrate the data into Saanich’s GIS. Such data, shown spatially, aids in the understanding of biodiversity patterns and in planning to better protect and enhance Saanich’s natural environment.

“Components” of natural environment referred to here are generally equivalent to “natural assets” of EPGA2020 and, for ecosystems and biodiversity specifically, to “biodiversity targets” used by the IUCN (e.g., Salafsky et al 2008) and suggested by the RSTC for use in the SOB.

From the District perspective, it is reasonable to view components of the natural environment as “natural assets”. This may allow ecological goods and services and related maintenance costs to be better-valued in the context of municipal infrastructure and operations. Saanich recognizes this and also

<sup>5</sup> Also, the draft BCS was unavailable for review as of mid-November 2023

<sup>6</sup> Kevin Brown, RSTC meeting agenda package 28 June 2022 pp 9-18

<https://www.saanich.ca/assets/Local~Government/Documents/Committees~and~Boards/RSTC/Agendas/2022~Agendas/2022-06-28-RSTC-REVISED%20%20Agenda.pdf>

notes that an inventory of natural assets does not yet exist<sup>7</sup>. Data collected for the SOB and SUF reports should provide some of that information.

The concept of “natural assets” may reinforce the perception that nature exists primarily to benefit we humans through the (economic) goods and services it provides. RSTC recognizes the intrinsic value of nature as a core principle of the EPF but we also recognize that seeing nature as “municipal natural assets” may be valuable for municipal strategic and budgetary decisions.

### **2.1.3 Stressor/Threats (Tables 2a, 2b, 2c; worksheet not attached)**

Stressors/threats and the actions that produce them link municipal policies and components of the natural environment. Policies typically address actions that threaten (or could benefit) the natural environment.

Classifying stressor/threats in a way which relates both to components of environment and to local government policy is inherently complicated. For example:

- (1) the local natural environment can be impacted both by local actions that can be controlled locally and impacted by global stressor/threats that are not controllable locally.
- (2) local stressor/threats vary in their proximity to the stress they cause and can be difficult to clearly separate from their sources (e.g., human actions) (for example, Tables 2b and 2c).
- (3) actions which are sources of stressor/threats may also be beneficial to biodiversity/ecosystems.
- (4) Our scientific understanding of what constitutes threats to biodiversity in urbanized landscapes is increasing dramatically.

Some municipal policies may have little direct impact on Saanich’s natural environment but directly affect biodiversity and ecosystems elsewhere, as per the “ecological footprint” concept (Wackernagel and Rees 1996). Such policies with beneficial impacts could include encouraging salvage and reuse of building materials from deconstructed houses or requiring concrete used in municipal infrastructure to contain recycled aggregate and other “waste” materials and thereby reduce impacts of extracting and processing virgin materials elsewhere.

EPGA2020 presents a single column of threats associated with “natural assets”. We suggest refining the stressor/threats classification to focus on direct (proximate) threats and their sources that the municipality can largely control. “Global” threats that the municipality largely cannot control but which could have significant local impacts and that might be mitigated indirectly or adapted to (e.g., climate change) can be acknowledged in the spreadsheet and explored more deeply elsewhere in the EPF, as can local policies which potentially impact biodiversity and ecosystems elsewhere. Acknowledging the sources of different threats can clarify how the municipality can better protect Saanich’s natural environment.

Examples of direct (proximate) threats include loss of tree cover, soil quantity and quality, permeable surfaces, introduction and spread of invasive non-native species, polluted stormwater runoff, air pollution from localized burning, and noise and inappropriate outdoor night-time lighting. Some examples of global threats with potentially pronounced local impacts are (a) climate change, (b) regional

<sup>7</sup> District of Saanich Asset Management Strategy 2023.

<https://www.saanich.ca/assets/Local~Government/Documents/Saanich%20Asset%20Management%20Strategy-20230711.pdf>

population growth and its associated pressures of land and resource consumption and waste generation, (c) non-greenhouse-gas air pollutants of non-local origin, (d) ubiquitous toxins such as microplastics and synthetic “forever” (e.g., PFAS) chemicals, and (e) geological events such as earthquakes and tsunamis. Global threats can influence the severity of proximate direct threats.

In the spreadsheet, we focus on local (proximate) threats that local policy can impact locally and on “sources of those threats”. These may be difficult to separate – at the local level, is surface water pollution caused by an excess of a pollutant, the abundance of pavement which directs contaminated stormwater runoff to surface water, or land-use approaches that encourage road building, automobile use, and stormwater runoff? All may be correct. We refer to threats as “stressor/threats” as they overlap (but see Saito et al. 2022). Stressor/threats may have either already been documented locally or are possible, based on studies in similar urban environments.

“Stressor/threats” and their “sources” do not always damage biodiversity and ecosystems. As with abiotic factors, the levels of the “stressor/threats” and magnitude and intensity of the sources determine whether an action is a threat or benefit to biodiversity and ecosystems. For example, fire can be good or bad for specific ecosystems depending on the ecosystem and the frequency and severity of the fires. Effective municipal environmental policy requires knowing how much of something is bad, good, or neutral for the natural environment and weighing that against the health and safety of the municipality. That requires appropriate data. We suggest that “stressor/threats” are really “potential stressor/treats” until confirmed and that the sources of threats refer to actions that are inappropriate via their location, intensity, and/or magnitude. This view of stressor/threats draws on but is not identical to that of IUCN-CMP (Salafsky et al. 2008; Master et al. 2012) and does not distinguish between stressors and threats (Saito et al. 2022).

We do not focus on global threats in the EPGA spreadsheet, but they clearly can impact Saanich’s natural environment. Global threats influence the severity of more proximate threats and have important consequences for long-term planning. For example, climate change may exacerbate impacts of intensified land use and development on urban forest and freshwater ecosystem health and composition. Effects of climate change on Saanich’s natural environment have been briefly addressed in the Climate Plan, to be included in the Environmental Policy Framework (EPF).

Population growth in Saanich and the CRD may also be a potential “global” threat to Saanich ecosystems and biodiversity. Saanich is the largest municipality in the CRD and surrounded by other municipalities. Population growth in Saanich therefore means increased densification at a municipality-wide scale. This may lead to decreased per capita emissions of greenhouse gases (Ribiero et al. 2019), but the associated increase in the built environment can lead to a greater proportion of impervious land, reduced tree canopy, changes in stormwater runoff patterns, increased urban air temperatures and habitat fragmentation, and decreased soil quality and biodiversity. If so, strengthening policies addressing those proximate threats becomes even more urgent. Population growth elsewhere in the Capital Region also implies increased impacts to Saanich’s natural environment from transportation to and through the municipality.

Global threats may have interacting impacts on Saanich’s natural environment. Over the longer-term, climate change may drive migration to and increase population growth in areas with milder climates, such as the Puget Sound region (Saperstein 2015; Binder and Jurjevich 2016) and Vancouver Island, exacerbating effects of each on local biodiversity and the natural environment.

#### **2.1.4 Policies (worksheet extract)**

Approximately 260 Saanich bylaws, council policies, and other strategic documents were found on the District website<sup>8</sup>. An initial scan suggested ca. 110 policies might be suitable for further inspection- those are listed in the worksheet extract.

Administrative or departmental policies are not listed on the public District website although they may have implications for the natural environment. Similarly, Saanich strategic plans and annual reports are not listed in the worksheet although they may be important for assessing District intent and progress in implementing relevant policies.

#### **2.1.5 Linking environment, threats, and policies**

An EPGA should clearly link policies to environment and/or to stressor/threats. EPGA2020 does not. We suggest sorting policies by the component of environment they potentially impact or by stressor/threats they address. The relevance of policies to either environment or stressor/threats should then be assessed as begun in EPGA2020. Ultimately, these linkages would provide a snapshot of: (1) how existing municipal policies apply to the natural environment or to stressor/threats; (2) conversely, what aspects of the natural environment are not addressed by existing policy.

To facilitate sorting, we propose assigning numerical codes to components of natural environment, to stressor/direct threats, or to sources of threats, then determining which numerical codes are relevant in any policy document.

Components of environment are appropriate as a sorting factor for policies because (1) the environment is what Saanich seeks to protect (2) components are not likely to change over time (although one might wish to further split components) and (3) agreed-on indicators exist. Coding components of environment therefore seems relatively straight-forward and understandable.

Stressor/threats or their sources are also appropriate for sorting policies because policies typically target actions that result in stressor/threats. Policies do not directly regulate components of environment, even if environment is the ultimate reason for the policy. If stressor/threats are appropriately classified and linked to components of environment and to policies, it becomes possible to better identify policies (existing or not) with multiple environmental benefits. An obvious example would be policy to minimize the proportion of land as impervious surfaces; this could have beneficial effects for tree canopy cover, terrestrial biodiversity, stream hydrology, and urban air temperatures. Similarly, appropriate tree planting and mature tree retention can improve soil health and air quality, lessen temperature extremes, increase biodiversity, and ameliorate stormwater runoff.

Classifying and coding is more complicated for stressor/threats than for environmental components (section 2.1.3). Both approaches may be useful; a hybrid approach is feasible. As a first step, we have assigned numeric codes to components of the natural environment relevant to Saanich and used those to sort and guide assessment of Saanich policies. One could also assign codes to stressor/threats of particular interest.

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<sup>8</sup> bylaws require the public to follow certain behaviors for specific issues; council policies formally express the intent of a specific council on a specific issue and remain in force until changed by Council; “other strategic” documents address a broader set of issues, but often in a specific geographical area; and provide context, targets, and a timeline. Last accessed November 2023



### **2.1.6. Assessing the “adequacy”, benefits, and potential impact of policies on the natural environment**

A systematic and thorough assessment of environmental policy “adequacy” is not simple. Ultimately, it requires knowing if a policy benefits the target component(s) of Saanich environment. In general, the RSTC feels that Saanich lacks the data it needs to comprehensively assess its natural environment. As an initial step, one can assess how policies address components of the natural environment. For example, a policy may refer to the component incidentally or intentionally; if intentional, it may be for another purpose (e.g., human health and safety vs. biodiversity); and it may be aspirational, express goals and measurable targets, a voluntary guideline, or a bylaw with regulatory power. Ideally, Saanich should know how well, not just how, policies address components of the natural environment.

### **2.1.7. Summary of worksheets and steps taken to-date**

To explore the feasibility of this approach for the EPGA, we created three worksheets and associated summaries of existing policies:

- Worksheet 1 (not attached) - numeric codes were assigned to components of natural environment (e.g., Table 1).
- Worksheet 2 (not attached)- all Saanich policies (bylaws, council policies, and other strategic documents) available on the Saanich website were listed. In total, there were ca. 260 policies. To expedite the initial assessment for this draft, policies that were thought to have some connection (intended or not) to components of the natural environment were identified, highlighted and characterized further; this reduced the initial list of policies to analyze to ca. 110. Those policies were reviewed and “relevant” environment numeric codes assigned (e.g., **Appendix EPGA2**).
- Worksheet 3 (extract attached as **Appendix EPGA0**) - combined policies and their relevant environmental codes were then structured to allow sorting in a third worksheet. This allowed for an initial assessment of how many existing Saanich policies might affect different components of the natural environment as well as what components of environment are not or are minimally addressed by existing policy.
- Worksheet 3 (continued and in-progress) – additional data are being added to each document (row) to indicate intent (protecting the natural environment versus community safety, etc.); potential strength (if the document regulates, sets specific targets, etc.); and whether it applies to specific areas of Saanich or is District-wide. The worksheets could also note if data exist to support the intent of the policy.
- Summary notes for individual policy documents are being prepared, indicating what aspects of the natural environment were addressed (explicitly or implied) and how (Appendix EPGA2)

For the purposes of this initial assessment, “relevant” simply means whether a component of environment or stressor/threat is specifically mentioned or strongly inferred in a policy. However, a cryptic description of how the policy address different components of the natural environment should be developed and incorporated into the spreadsheet.

### **2.1.8. Initial analyses of policy applications to components of natural environment**

One type of gap analysis application is to assess how many policies address components of environment and how; this can help show what components of Saanich’s natural environment may be under-addressed by municipal policies, to highlight components that are well-addressed; and to help highlight policy actions with effects on multiple components. A second type is to focus on likely policy gaps and use the spreadsheets, policy notes, and specific policies (as needed) to confirm those gaps (or conflicts).

Figure 1 (follows Tables 1 and 2) summarizes how many policies of what type address the different categories of environment. Figures 2 and 3 (to complete) summarize some general characteristics of how different policies address those components.

A second use of the approach is to confirm how policies address suspected specific gaps.  
(see examples in RSTC agenda package for 16 November 2023)

Finally, this information can be used a reference catalogue of existing policies pertinent to the natural environment and as a listing of components of environment and associated stressor/threats to help guide Environment and Social Reviews (ESR) and similar assessment.

### **2.1.9 Complexity and comprehensiveness, useability, and flexibility**

The worksheets represent an updated approach to capture the breadth of “natural environment” in Saanich while allowing matching of environment, threats, and policy. It is a “first cut”; individual issues or policies, threats or components of environment can be revised and examined in more detail as needed.

### **2.1.10 Envisioned final report-components**

- Summary
- Why revise EPGA2020?
- Rationale for classifying and coding – natural environment and stressor/threats

#### *Cataloguing*

- Table- Components of natural environment and associated stressor/threats
- Table/worksheet – list of bylaws, council policies, other strategic documents and associated environmental codes. Each policy to also be coded to facilitate assessment- i.e., addressing natural environment is explicit, incidental, or inferred; policy has regulatory capacity vs hard targets vs merely aspirational; policy is spatially limited vs Saanich-wide
- Table (Appendix) with relevant summary points for each policy

#### *Assessing*

- Tables / Figures - summarize how many policies are associated with a given component of environment
- Tables/Figures – summarize how policies address different components of environment, including implied (potential) effectiveness;

Confirming “known” gaps in policy using the appropriate worksheet, summary notes, and, if needed, by referring directly to the policy document

- Conclusions: do necessary policy tools exist to protect a given component of environment? Are they effective? How does one know? Are there policies with meaningful multiple environmental benefits?

There is a need to summarize both the adequacy or effectiveness of municipal policies intended to protect the environment and the effects of other policies (and major projects) on Saanich’s natural environment. Effectiveness was not assessed in EPGA2020 and is difficult without appropriate monitoring and data.

The worksheets could be expanded to contain additional information; for example, noting: for what components of environment senior levels of government have primary responsibility and thereby limit what municipal policy can address; and whether data are available to assess environment status or

condition or the magnitude or severity of stressor/threats. Specific proximate stressor/threats could also be flagged if likely to be exacerbated by more global threats such as climate change. This would help integrate EPGA2.0 with the climate plan.

As indicated previously, the EPGA spreadsheet should be viewed as a living document subject to regular updating and to modification as needed. Ideally, it would ultimately reside on the District website as a sortable database accessible to the public.

### **3.0 *To-do in remainder of 2023***

- Complete the table of summary notes on policy (2.1.8)
- Suggest coding for (potential) policy effectiveness (2.1.8)
- Prepare appropriate summary graphs and conclusions; note gaps in assessment, including need to update for new or updated policies
- Recommendations/next steps to complete the EPGA in a form usable to staff and the community

**Table 1.** Components of natural environment. “Env Component 2” refers to sub-categories of “Env Component 1”. Numeric codes are assigned to facilitate sorting of policies.

	Env. Component 1	Env. Component 2	Code
Abiotic	Air quality		1
	Air temperature		2
	Light		3
	Sound		4
	Water	Freshwater	5
		Groundwater	5
		Saltwater	5
	Soil	Native	6
		Urban	6
Ecosystems (biotic+abiotic)	Terrestrial	Native (categorize by ecosystems, species?)	7
		Agricultural	8
		Urban forest	9
		Urban “backyard”, ROW	10
	Freshwater	Lakes, streams, permanent and ephemeral wetlands	11
	Saltwater/estuary	Coastal sand, marine shoreline, near-shore	12

**Table 2a.** Stressor/Threats (to conditions appropriate for life), abiotic environment

<b>Environment</b>	<b>Stressors/Threats</b>	<b>Source of threat</b>
Air	Pollutants <sup>1</sup>	Combustion, traffic, soil disturbance
Air temperature	Extreme temperatures	increased pavement; dark surfaces, heat transfer from buildings; loss of tree cover
Light	ALAN <sup>2</sup>	stationary outdoor light; visible indoor lighting; mobile light (traffic)
Sound	Noise <sup>3</sup>	industry, traffic, human activity, increased hard surface, reduced rough surfaces (vegetation)
Water-fresh surface	Pollutants <sup>4</sup>	stormwater and fertilizer runoff, chemical spills, sewage and animal waste, soil erosion, trash and litter incl. microplastics
	Extreme temperature, low oxygen	Lack of riparian tree cover, nutrient excess, low flow
	Extreme variation in quantity	Increased Impermeable surfaces, below-ground construction
Groundwater	Pollutants <sup>5</sup>	chemical spills, landfill leachate, sewage, animal waste, chemical fertilizers
	Salinity	Excessive depletion, saltwater intrusion
	Disruption of flow, replenishment	Below-ground excavation and construction
Saltwater	Pollutants <sup>6</sup>	stormwater runoff, sewage outflow, non-point pollution sources
Soil (native and urban)	Reduced fertility, soil biodiversity, permeability, and altered hydrology	Loss of topsoil, organic matter; soil sealing and compaction; invasive non-native plants and soil biota
	Pollutants <sup>7</sup>	Intentional (e.g., biosolids; pesticides) and accidental (spills) application of chemical contaminants; localized domestic animal deposits

1/ includes particulate matter (PM), nano and microplastics; inorganic gases (e.g., O<sub>3</sub>, NO<sub>x</sub>, SO<sub>x</sub>, CO, NH<sub>3</sub>), volatile organic compounds (VOCs), persistent organic pollutants, and heavy metals, e.g., mercury

2/ Artificial light at night

3/ human-made sound that alters the behaviour of animals and interferes with their functioning

4/ includes point (industrial or storm sewer outfalls; nano- and microplastics, metals) and non-point (leachate from septic fields, runoff of excess fertilizers including manure, pesticides; oil and hydrocarbon leaks from buried oil, gasoline tanks)

5/ includes point and non-point pollutants, e.g., fertilizer leachate (e.g., NO<sub>3</sub>), chemical and biological contamination from sewage or manures, hydrocarbon or other chemical leaks from storage tanks or pipelines

6/ includes point and non-point pollutants as for fresh and groundwater

7/ includes point and non-point pollutants as for groundwater; chemical contaminants (e.g., heavy metals, nano- and microplastics, other emerging chemicals of concern)

**Table 2b.** Stressor/Threats, terrestrial ecosystems

<b>Environment</b>	<b>Stressors/Threats</b>	<b>Possible sources of threats</b>
Ecosystem- native terrestrial	Loss of area-different terrestrial ecosystem types	Land use conversion buildings, traffic infrastructure; change in pre-settlement fire regime
	Fragmentation	Land use conversion Placement of buildings, roads, trails
	Pollutants	Litter and trash; see also Table 2a
	Reduced soil quality	See Table 2a
	Disrupted moisture availability	Increased impermeable surfaces Excavation and below-ground construction
	ALAN, Noise	See Table 2a
	Invasive species	Intentional or accidental introduction; non-removal; Improper disposal of yard waste Accelerated dispersal via trails, roads
	Direct disturbance, humans and domestic (pet) animals	Trail access and use; management of pet animals; collisions with traffic
Agricultural	Reduced soil quantity	Increase in built environment;
	Reduced soil fertility, organic matter	Inappropriate cultivation, drainage, fertilization, pesticide application; addition of construction fill
	Loss of habitat for native birds, insects including pollinators	Increased cultivation of fields (removal of within-field trees; vegetation along streams and field borders (hedgerows)
Urban forest	Mature tree decline, mortality, removal	land use change - loss of pervious surface; poor microsite and soil management; introduction of pests; use of inappropriate tree species
	Inadequate tree replacement, regeneration	Increased impermeable surfaces
	Insufficient soil volume	Increased impermeable surfaces; topsoil removal
	Poor soil quality	See Table 2a
	Disrupted hydrology	See Table 2a
	Introduced disease, insects	Inappropriate transfer of infested soil, biological material
Urban backyard/ROW	Loss of area	increased impermeable surfaces, introduction of invasive species; application of chemical fertilizers, pesticides
	Loss of native vegetation	Landscaping- physical and chemical (pesticides, synthetic fertilizers); introduction of invasive species;
	ALAN, Noise	See Table 2a
	Reduced soil quality, quantity	See Table 2a
	Pollutants <sup>7</sup>	See Table 2a

**Table 2c.** Stressor/Threats, freshwater and saltwater ecosystems

<b>Environment</b>	<b>Stressors/Threats</b>	<b>Possible sources of threats</b>
Freshwater-surface	Disrupted surface, subsurface flow	Impervious surfaces, excavation and below-ground construction
	Disrupted channel morphology	
	Pollutants	See Table 2a
	Extreme temperature, low O <sub>2</sub>	See Table 2a
	Extreme flow variation	Impervious surfaces
	Excessive nutrient inputs	See Table 2a
	Cyanophyta blooms	Excess nutrients, temperature from low flows, sewage/septic/fertilizer runoff, loss of riparian shade
	Invasive plants and animals	
	Loss of riparian overstory	
Saltwater/estuary	Algal blooms	Excess nutrients from sewage/septic/fertilizer runoff
Near-shore	Pollutants; biological contaminants	
	Aquatic invasive species	Dispersal via watercraft
	Overharvesting	
Coastal Sand/Marine Shoreline	Altered sediment deposition	Shoreline hardening
	Pollutants; biological contaminants	

Figure 1. Number of Saanich policies (from District of Saanich website) with some association to components of the natural environment (see Table 1).

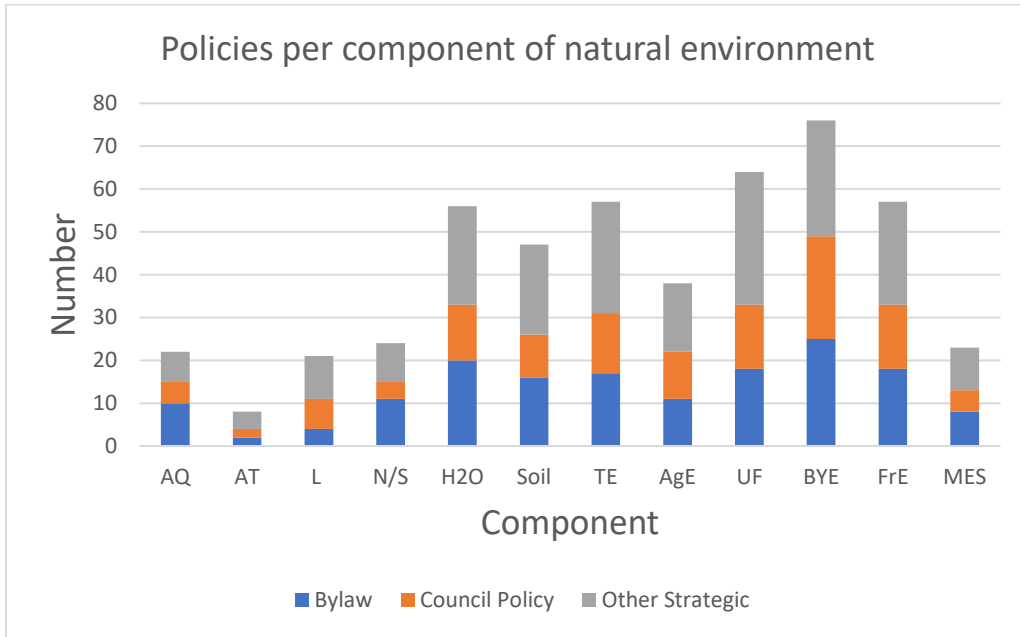


Figure 2 (tentative). Summary figure showing how policies refer to components of environment across Saanich policies examined.

Figure 3 (tentative). Number of Saanich policies that regulate or set measurable targets and timelines for components of the natural environment



## Appendix EPGA0. Worksheet 1 – Policies and associated environmental codes (extract).

<b>Policy_ B=bylaw; CP= council policy; OS=other strategic document</b>	<b>No.</b>	<b>Year</b>	<b>clear intent/mentioned</b>	<b>indirect</b>	
Animals Bylaw [PDF - 124 KB]/Other	B	8556	2004	4,5,6,7,8,10,11,12	[1]
Animal bylaw_amended		9924	2023	4,5,6,7,8,10,11,12	
Blasting Bylaw [PDF - 115 KB]/Other	B	6821	1992	[4,10]	
Boulevard Regulation Bylaw [PDF - 292 KB]/Other	B	9487	2018	9,10	
Building Bylaw [PDF - 318 KB]/Other	B	9529	2019	5,6,9,10	[11]
Checkout Bag Regulation Bylaw [PDF - 233 KB]/Other	B	9589	2020		
Deposit and Removal of Soil Bylaw [PDF - 172 KB]/Other	B	9482	2022	4,5,6,7,8,9,10,11	[12]
Development Cost Charges Bylaw [PDF - 1 MB]/Other	B	9881	2019	5,7,9,10,11	
Development Cost Charges Reduction Bylaw [PDF - 216 KB]/Other	B	9607	2020	5,7,9,10,11	
Driveway Access Bylaw [PDF - 98 KB]/Other	B	9136	2011		{6,9,10}
Fire Prevention and Life Safety Bylaw [PDF - 245 KB]/Other	B	9712	2021	1,7,9,10	
Firearms & Bow Discharge Regulation Bylaw [PDF 263 KB]/	B	9414	2017	7,8,10	
Fireworks Regulation Bylaw [PDF - 76 KB]/Other	B	8865	2007	1,4,7,10,12	
Garbage Collection & Disposal Bylaw [PDF - 180 KB]/Other	B	9233	2013	1,5,6,7,10,11	
Land Use & Development Application Fee Bylaw [PDF - 95 KB]/Other	B	8798	2006		[5,6,7,10,11,12]
Land Use & Development Procedures Bylaw [PDF - 102 KB]/Other	B	9650	2020	1,2,3,4,5,6,7,8,9,10,11,12	
Minimum Property Maintenance Standards Bylaw [PDF - 33 KB]	B	4050	1978	5,6,9,10,11	[5,12]
Noise Suppression Bylaw [PDF - 151 KB]/Other	B	7059	1993	1,4,5	
Noxious Weeds Bylaw [PDF - 133 KB]/Other	B	8080	2000	7,8,10	
Nuisance Bylaw [PDF - 71 KB]/Other	B	7622	1996	10	
Official Community Plan Bylaw [PDF - 10 MB]/Other	B	8940	2008	1,2,3,4,5,6,7,8,9,10,11,12	
Oil Burning Equipment and Flammable Liquid and Combustible Bylaw/Other	B	9265/ 9700	2014/ 2021	5,6,11	
Parks Management and Control Bylaw [PDF - 249 KB]/Other	B	7753	1997	1,4,5,6,7,9,10,11,12	
Pesticide Bylaw [PDF - 516 KB]/Other	B	9054	2010	1,5,6,7,8,9,10,11	[12]
Sanitary Sewer Bylaw [PDF - 128 KB]/Other	B	8792	2006	1,5,6,7,9,10,11,12	
Sewer Water and Storm Drainage Connection Fee Bylaw [147KB]	B	9688	2021		
Streets & Traffic Bylaw [PDF - 374 KB] Bylaw	B	8382	2002	4,5,6,9,10,11	

Subdivision Bylaw [PDF - 550 KB]/Other	B	7452	1995	3,5,6,7,8,9,10,11	[1,2,4]
<u>Tree Protection Bylaw, 2014 and amendments No. 9548,9781</u>	B	9272	2014	5,6,7,8,9,10,11,12	[1,2]
Truck Route Bylaw [PDF - 103 KB]/Other	B	6346	1989	4	
Unightly Premises Bylaw [PDF - 219 KB]/Other	B	9600	2021	10	[6]
Water Utility Bylaw [PDF - 112 KB]/Other (amended 2022)	B	8124	2000	5,6,8,9,10,11	
Watercourse & Drainage Bylaw [PDF - 190 KB]/Other	B	7501	1996	1,5,11	[12]
Zoning Bylaw 8200 [PDF - 14 MB]/Other*	B	8200	2003	1,3,4,5,6,7,8,9,10,11,12	[11]
Acquisition of Floodplain Lots [PDF - 10 KB]/Council Policies	CP	06/1C	2006	5,7,8,9,10,11	
Aerial Crop Spraying [PDF - 11 KB]/Council Policies	CP		1983	1,5,6,7,8,10,11,12	
Agricultural Land Reserve Appeals [PDF - 7 KB]/Council Policies	CP		1988	8	[7,8,9,10,11]
Asset Management Policy [PDF - 20 KB]/Council Policies	CP	19/CNCL	2019	5,6,7,8,9,10,11,12	
Boulevard Tree Policy [PDF - 17 KB]/Council Policies	CP	88/CW	1988	3,6,7,9,10	
Chlorofluorocarbons and Halons - Use of [PDF - 7 KB]/CP	CP		1989		[1]
Committee on Urban Growth [PDF - 7 KB]/Council Policies	CP		1981	7,8,9,10	
Community Gardens Policy	CP	03CW	2003	8,10	
Community Grants Program [PDF - 188 KB]/Council Policies	CP	13/CNCL	2013	3,4,5,6,7,8,9,10,11,12	
Environmental & Social Review Process Policy [PDF - 114 KB]/Other	CP	92/CW	1992	1,2,3,4,5,6,7,8,9,10,11,12	
Environmental Impact Assessment on Municipal Properties/CP	CP	96/CW	1996	1,2,3,4,5,6,7,8,9,10,11,12	
Geothermal Heat Exchangers in Saanich Freshwater Ecosystems/CP	CP	08/283	2008	5,11	
Green Building Policy - Private Sector [PDF - 13 KB]/Council Policies	CP	07/230	2007		
Green Building Policy [PDF - 271 KB]/Council Policies	CP	05/219	2005	5,7,10,11	[9]
Integrated Pest Management Policy [PDF - 35 KB]/Council Policies	CP	10/CNCL	2010	1,5,6,7,8,9,10,11	
Landscape Enforcement [PDF - 8 KB]/Council Policies	CP		1986		[6,9,10]
Landscaping & Screening Guidelines - Development Permit Areas/Council Policies	CP		1987	6,9,10	
Local Food Procurement Policy [PDF - 8 KB]/Council Policies	CP	12/CNCL	2012	8	
Outdoor Lighting - Regulations for Areas Associated with Municipally Controlled Buildings & Structures [PDF7 KB]/CncIPol	CP	92/CW	1992	3	
Park Development or Improvements [PDF - 7 KB]/Council Policies	CP		1990	7,9,10,11	
Parks - Installation of Major Facilities or Services [PDF7KB]/Cncl Pol	CP		1983		

Purchasing Products & Materials Containing a Recycled Content/ Council Policies	CP		1989		
Restrictive Covenants [PDF - 7 KB]/Council Policies	CP		1994	7,9,10,11	
Rezoning for Proposed Developments - Road Dedication & Servicing Requirements [PDF - 7 KB]/Council Policies	CP		1988	10	
Rights-of-Way [PDF - 6 KB]/Council Policies	CP		1977	10	
Road Allotments [PDF - 7 KB]/Council Policies	CP		1979	10	
Roads - Design of Major [PDF - 7 KB]/Council Policies	CP		1986	10	
Sewer (Sanitary & Storm) Blockages [PDF - 8 KB]/Council Policies	CP		1995	5,9,10	
Sewer Damage Claims [PDF - 7 KB]/Council Policies	CP	88/CW	1988/2000		
Sewer Service Area - Boundary Extension for Health Hazard when Pump Station Required [PDF - 11 KB]/Council Policies	CP	80/303C	1980/2007	5,6,11	
Small apartment infill policy	CP	23/CW	2023	2,3,5,6,7,9,10,11	
Smoking Ban - Municipal Facilities [PDF - 7 KB]/Council Policies	CP	90/CW	1990	1	
Sound Barriers in Saanich - General Approach [PDF 7 KB]/CnclPol	CP		1992	4	
Storm Drains & Sewer Lines - Maintenance [PDF - 7 KB]/Council Pol	CP		1987	5,9,11	
Street Lights [PDF - 6 KB]/Council Policies	CP		1978	3	
Subdivision - Parkland Provision [PDF - 7 KB]/Council Policies	CP		1986	7,10	
Subdivision - Provision of Public Access to Bodies of Water/Council Policies	CP		1979	11	
Subdivision - Refusal [PDF - 6 KB]/Council Policies	CP		1978	10	
Subdivision Applications - Minimum Road Frontage Requirements/Council Policies	CP	95/CW_99/321	1995/1999		
Subdivision Applications (Panhandle Lots) Reduced Frontage/Council Policies	CP	99/321	1999	3,9,10	[5,6]
Surface Stormwater Management - Development Guidelines/Council Policies	CP	01/CW	2001	5,7,9,10,11	
Toxic Real Estate Development [PDF - 10 KB]/Council Policies	CP		1990	6	
Traffic Islands - Design & Landscaping [PDF - 7 KB]/Council Policies	CP		1985	10	
Active Transportation Plan (Jun. 2018)	OS	8	2018	1,4,5,6,7,8,9,10	
Agriculture and Food Security Strategy (2018)	OS	8	2017	5.6.7,8.9.10,11,12	[1,4]
Asset Management Strategy		8	2023	5,6,7,8,9,10,11,12	

Bowker Creek Initiative	OS	6		5,7,9,10,11,12	
Burnside - Tillicum Action Plan (2005)	OS	10	2005	1,2,3,4,5,7,9,10,11,12	
Climate Plan Backgrounder Series (Nov. 2018)	OS				
Climate Risk Assessment	OS				
Climate Plan (2020)	OS	12	2020	1,2,[3],4,5,6,7,8,9,10,11,12	
Craigflower Watershed Management Plan (1998)	OS	6	1998	5,7,8,9,10,11	[6]
CRD - Pedestrian and Cycling Master Plan (2011)	OS		2011		
Cuthbert Holmes Management Plan (2015)	OS	7	2015	5,6,7,9,10,11,12	
Development Permit Guidelines (2008)	OS	10	2008	3,4,5,6,7,8,9,10,11,[12]	
Durrell Creek Watershed Management Plan (2000)	OS	7	2000	5,6,7,8,9,10,11	
Elk Beaver Lake Management Plan (CRD)	OS	7	2020	5,6,7,8,9,10,11	
Garden Suite Guidelines	OS		2020	4,5,[6],9,10,11	
Global Age Friendly Cities Plan (2008)	OS		2008		
Gordon Head Action Plan	OS	4	1999	[3],4,7,9,10	
Haro Woods Park Management Plan (2018)	OS	6	2018	5,6,7,9,10,11	
Healthy Saanich Community Workshop Report (2013)	OS	9	2013	1,5,6,7,8,9,10,11,12	
Integrated Pest Management	OS				
Invasive Species Management Strategy (2013)	OS	6	2013	6,7,8,9,10,11	
Local Area Plans	OS	10	2023	1,3,5,6,7,8,9,10,11,12	
Official Community Plan	OS	10	2008	3,4,5,6,7,8,9,10,11,[12]	
Panama Flats Concept Plan (Draft, 2014)	OS	6	2014	5,6,7,8,9,11	
Parks, Recreation and Culture Master Plan (2013)	OS	3	2013	7,9,[11?]	
Population projections trends and capacity buildout analysis	OS				
Prospect Lake - Tod Creek Action Plan	OS	7	2001	5,6,7,8,9,10,11	
Quadra Corridor Action Area Plan (1996)	OS	3	1996	7,9,10	
Shelbourne Valley Action Plan (2017)	OS	8	2017	3,[4],5,6,7,9,10,11	
Short Street Action Plan	OS	1	1999	9	
South Wilkinson Valley Action Plan	OS	8	2002	3,5,6,7,[8],9,10,11	
Swan Lake Action Area Plan	OS	1	1995	7	[11]

Tillicum - Burnside Action Plan	OS	2	2005	[1,2,3,4,5,7],9,10,[11,12]
Tod Creek Flats Integrated Management Plan (2008)	OS	7	2009	5,6,7,8,9,10,11
Uptown-Douglas Corridor Plan (Draft, 2019)	OS	9	2022	1,2,3,4,5,6,9,10,11
Urban Forest Strategy (2010)	OS	8	2010	1,2,5,6,7,9,[11],10
West Saanich Road Streetscape Action Plan (2005)	OS	3	2005	3,9,10

DRAFT

Appendix EPGA1. Review of EPGA2020 and possible updates (circulated June 2023, subsequently modified)

## Background

EPGA2020 was prepared by staff and presented to RSTC in Sept 2020 for review. As initially envisioned:

*As part of Milestone One, taking stock of the existing policy framework and identifying gaps is an important first step in the [EPF] process. The Terms of Reference action item deliverable is to: “Draft a Resilient Saanich framework skeleton of existing policies, etc. Conduct a gap analysis. Identify options for filling gaps using the Green Bylaws Toolkit and other references”.*

The intent was to answer three questions largely as milestone 1 actions:

- 1. What natural assets are there and what risks do they face?**
- 2. How do we currently enhance and protect our natural assets?**
- 3. What do we have the authority or opportunity to do?**

A complete EPGA would then be used to guide the setting of EPF goals and objectives and determine related actions necessary to completing the EPF. The draft EPGA notes that *“this document will continually be revised throughout the process”*, implying the EPF process.

The existing draft EPGA consists of several tables:

1. “Natural assets”, their “benefits”, and “threats”
2. Overview of Saanich bylaws, policies, strategies, procedures, and programs and partnerships (that contain provisions for environmental protection)
3. Related Saanich bylaws overview and “status” (“is there a gap or room for improvement?”). Status was summarized as (a) “Significantly out-of-date or missing key elements” (b) “Room for improvement or at least a review” (c) “Complete and up-to-date” (d) “Unknown or lack of data”
4. Stewardship approaches, listing some current (as of 2020) approaches by (a) the District and (b) community-based (non-governmental) organizations
5. Gap analysis summary and next steps – lists “natural assets” as per Table 1; summary status of plans and policies, stewardship status as in Table 3; and comments that appear to relate to analysis embedded in individual cells of the matrix.

## How can the existing draft EPGA be improved?

The September 2020 draft EPGA begins to address key questions posed in its introduction but could be more comprehensive, functional, and useful. For example, the completeness and organization of “components of natural environment” (i.e., “natural assets in EPGA2020) and “stressor/threats” (both Table 1) could be improved and the relationship of Saanich policy to environment and stressor/threats could be clearer. EPGA2020 does not identify policies with multiple environmental benefits (or impacts).

## Specifically:

1. Table 1 presents an inconsistent breakdown of natural environment or “natural assets”. For example, habitat is separate from ecosystems; soil is separate from terrestrial ecosystems, but water isn't separate from freshwater ecosystems and watersheds. Urban forests are specified but not agroecosystems. (Note: the State of Biodiversity report refers to agricultural lands)
2. Table 1 - What constitutes “Natural environment” seems incomplete. For example:
  - (a) The draft EPGA doesn't include or obscures some abiotic components (light, sound, air quality, temperature, water quality) of the natural environment. Human activity, especially with urbanization, affects abiotic components. These should be explicitly included in Table 1
  - (b) The draft EPGA doesn't explicitly acknowledge that ecosystems in the urban landscape are fragmented, disturbed, and novel to varying degrees – for example, “backyard biodiversity”
3. Table 1- “Human benefits” might suggest that the well- being of the natural environment is important primarily for our well-being; inconsistent with RSTC principles in the EPF.
4. Table 1- “Threats” (= stressors) range from proximate to the local environment (and controllable at the municipal level) to global overarching threats that the municipality can't control but could (and should) adapt to. Distinguishing between these may help focus local policy development
5. Table 3 - It is unclear what the assessments of bylaws in Table 3 mean and how they were arrived at. What does it mean in terms of natural environment to “be complete and up-to-date” or “could be reviewed”? Table 3 refers to 43 “enabling legislation tools” and associated bylaws – of those 6 were “complete and up-to-date” 21 “could be reviewed” 8- “absent or missing” and remainder no assessment. The different bylaws are not connected to the different components of natural environment.
6. Table 4- there is both consistency and conflict with what RSTC has said in the stewardship report
7. Table 5 attempts to integrate 7 natural asset classes from Table 1 with the “assessed” policy approaches- but:
  - (a) the natural asset classes may be inadequate as components of natural environment;
  - (b) the information underlying the color-coded assessments is unclear; and
  - (c) it's not clear what is included in each of the 28 (7 x 4) colored squares. Of those 28, 3 are said to be “complete and up-to-date” – 9 are “significantly out-of-date” or “missing key elements” 13 have “room for improvement or need review” (+3 vacant entries under community stewardship). The comments are based on what is not shown in the colored squares so the conclusions are questionable.

#### General thoughts:

1. The draft EPGA is a good start – it includes the main pieces necessary for a functional EPGA.
2. Reassess whether the existing “natural assets” category adequately covers “natural environment”; identify what stressor/threats are controllable locally or can be largely only adapted to; link environment or stressor/threats and policy and indicate policy intent.
3. RSTC can do some, but not all, revisions prior to December 31 2023. We can make significant improvements and recommend others to be completed as time and resources permit. The more RSTC completes prior to December 31, the more likely EPGA2.0 can be completed and used.

#### Specific revisions:

1. Table 1 - Delete “human benefits” column; recognize in EPGA introduction interrelationships among human impacts on (a) abiotic environment (b) biodiversity/natural ecosystems and (c) human health and wellness

2. Table 1- Revise “natural assets” classes to better reflect item #1, be more hierarchical, better align with the SOB report, and link via stressors to policies/regulations/etc. Add farmland and “backyard biodiversity” (SOB) to acknowledge that biodiversity and ecosystems occur and differ across a disturbance/urbanization gradient.
3. Table 1- Update the list of stressors potentially associated with different components of environment. Distinguish between those potentially controllable by the municipality versus not directly controllable. The latter require municipal policies that mitigate or adapt to stressors but can’t prevent them. Similarly, Natureserve (2) distinguishes between “direct” and “indirect” threats, although the classes of stressors used by Natureserve and the IUCN (3) may not be ideal for linking environment, stressors and local policy in a Saanich-specific context.
4. Assign numeric codes to either classes of environment or to associated stressors and assign the same codes to policy tools.
  - This could facilitate sorting and identifying (a) gaps in what aspects of environment or stressors are addressed (b) policy tools with multiple environmental benefits.
  - An advantage of coding environment components is that they are understandable and key words may be easier to find in policies. An advantage of coding stressors is that stressors are what policy tools typically directly address. In other words, policy tools often address the action (causing the stress) not the environment (the outcome).
  - Base the coding on 10 or so components of environment (or on the stressors) rather than on the ca. 200-300 policy tools that Saanich currently have (ca. 211 on the Saanich web page, 13 planning (OCP, LAP) documents, ca. 50 other strategic documents).
5. Table 3- Note the limitations inherent in the “assessments” of existing policies. Point out the uncertainty in knowing the intent (especially for regulations) and what “adequate” or “room for improvement” means with respect to protecting the specific aspect of environment.
6. Table 4. Align with stewardship WG findings.
7. Table 5. Amend to account for changes to Tables 1,3,4,5

#### Footnotes

1. Natural environment – refers to (1) abiotic factors necessary for life (2) physiography arising from planetary processes (3) biota and ecosystems that occurred on southern Vancouver Island pre-European settlement and still could occur given adequate habitat. Introduced and naturalized species might be considered as “natural environment” recognizing they may have deleterious effects. Natural environment (1) contrasts with the modern built environment, i.e., infrastructure made from relatively permanent human-manufactured materials<sup>2</sup> and (2) for our purposes, is predominantly outside of human structures.
2. Master, L. L., et al. 2012. NatureServe Conservation Status Assessments: Factors for Evaluating Species and Ecosystem Risk. NatureServe, Arlington, VA.
3. Salafsky et al. 2008. A Standard Lexicon for Biodiversity Conservation: Unified Classifications of Threats and Actions. *Conserv. Biol.* 22: 897



## Appendix EPGA2. Notes for EPGA- Saanich policies as pertaining to environment 13 Nov2023

### Codes:

1=air quality 2=air temp 3=light 4=sound 5=water 6=soil 7=native terrestrial ecosystem 8=agricultural ecosystems 9=urban forests 10=backyard “ecosystem/biodiversity” 11=freshwater ecosystem 12=saltwater ecosystem

### Bylaws

#### 1\_ Animals bylaw 8556\_2004. 4\*,5,6,7,8,10,11,12 (\*noise explicitly listed in 2023 amendments)

- Dogs prohibited or under leash in certain areas of high habitat value; not allowed to run at large (terrestrial ecosystems, backyard biodiversity, shoreline)- noise??
- Dog feces must be picked up on public property including parks and private property other than dog owner’s (soil, water quality)
- Cats-no restrictions on roaming
- Rodents, feral rabbits, deer- restrictions on keeping, feeding (terrestrial ecosystems, backyard biodiversity, agricultural ecosystems)
- Chickens- restrictions on numbers, managing manure (noise, soil, water quality implied)
- No reference to exotic reptiles, amphibians

#### 1b\_Animal bylaw 9924\_2023 (noise explicitly listed in 2023 amended bylaw)

- Restricts where dogs can be leashed or unleashed
- Owners of dogs or other animals can be fined if animal makes noise which cause nuisance
- People and pets not allowed to kill, harass, capture animals, remove eggs or destroy nests in public parks, trails, etc
- People must remove and properly dispose of their dog’s excrement
- No changes regarding free-roaming pet cats; feeding of rodents, feral rabbits, deer; or keeping of chickens

#### 2\_Blasting bylaw 6821\_1992. 4,10

- Restricts when where how blasting can occur. Emphasis is safety.
- Permit is required, but blasting in parks, natural areas etc not specifically prohibited.
- Does not mention noise or backyard biodiversity directly- implied; referenced in Noise suppression bylaw 7059

#### 3\_Boulevard bylaw 9487\_2018. 9,10

- Prohibits dumping trash; destroying native vegetation unless required; damaging existing trees or planting new trees unless District okays
- Requires adjacent property owners to maintain vegetation; requires permit to plant vegetation- approved plant list includes both natives, non-natives; does not encourage native vegetation

#### 4\_Building bylaw 9529\_2019. 5,6,9,10, [11]

- Applies to land, surface of water, air space in District
- Regulates standards for safe occupancy- permit for occupancy; emphasis is on safety and preventing damage to infrastructure
- Demolition, construction have implications for soil, water supply and septic disposal, urban forest, backyard biodiversity, freshwater ecosystems (not explicitly stated); energy conservation provisions potentially affect water, soil, terrestrial and freshwater ecosystems elsewhere, GHG emission, indoor and outdoor air quality

#### 6\_Deposit and Removal of Soil Bylaw 9482\_2022. 4,5,6,7,8,9,10,11, [12]

- Regulates deposit and removal of soil including private property, development permit areas (incl streamside and floodplain), agricultural land in conjunction with provincial regulations. Permit required
- Implications for surface and groundwater management; soil; productivity of all ecosystem types
- Implication for noise- hours for moving soil are restricted

#### 7\_Development and cost charges bylaw 9881\_2019 5,7,9,10,11

- Refers to acquiring parkland; importance of appropriate development to minimize environmental impact. Specific environmental components are implied, not explicitly addressed

#### 8\_Development and cost charges reduction bylaw 9607\_2020 5,7,9,10,11

- Reductions for affordable housing. Specific environmental components are implied, not explicitly addressed

#### \_\_Fire Prevention and Life Safety Bylaw 9712\_2021 1 7 9 10

- Regulates open-air burning, prohibits beach fires
- Emphasis on safety, not air quality or ecosystems
- Prohibits burning of certain materials
- Provides for more permissive outdoor burning outside of UCB
- Refers to smoke opacity as a limiting condition
- Bans littering with lighted cigarettes or other burning material (implication for litter and stormwater?)

#### 10\_Firearms and Bow Discharge Regulation Bylaw 9414\_2017. 7,8,10

- Prohibits discharge in Saanich with exceptions, including on farmland, shooting ranges and consistent with provincial, federal regulations. Implications for terrestrial, agro-ecosystems, backyard biodiversity. Soil contamination from lead could be issue in designated shooting ranges.

#### 11\_Fireworks regulation bylaw 8865\_2007. 1,4,7,10,12

- Restricts who what when where; emphasis is safety
- Does not mention air quality or noise directly
- Prohibits setting off in park or on beach/shoreline; directing at animal, tree, bush (implication for terrestrial and shoreline ecosystems, backyard biodiversity, urban forest)

#### 12\_Garbage collection and disposal bylaw 9233\_2013. 1,5,6,7,10,11

- Regulates what can be disposed of as landfill waste including toxic materials, construction and demolition waste; organics and recyclables are to be separated.
- Implications for solid waste inputs to Hartland and need to expand landfill; minimizing leaching of toxic material; composting can reduce methane production (air quality) and lead to improved soil

#### 14\_Land Use & Development Procedures Bylaw 9650\_2020. 1,2,3,4,5,6,7,8,9,10,11,12

- All applications for rezoning are subject to Environmental and Social Review based on criteria prescribed by Council [except that the Director of Planning may use discretion...]. Not a requirement
- Council policy is vague and discretion left to Director of Planning/approving officer/staff. Screening process includes: "shall consider" if within 50m of park, ALR, watercourse/streamside DPA; within 60m of marine shoreline; outside the UCB and proposed rezoning to 5 or more lots; "environmentally sensitive". If required, approving officer will "consider".
- ESR could apply to all aspects of natural environment but is arbitrary and there is no requirement for Saanich to require or follow. Meaningless?

#### 15\_Minimum property maintenance standards bylaw 4050\_1978. 5,6,9,10,11

- Focus on structure habitability, also references "land" - Land shall be free from "debris" (implies trash)
- Specifies where sewerage must go; prevents downspout runoff to "adjacent" property
- Implications for soil, urban forest, backyard biodiversity, (water?) freshwater ecosystems

#### 16\_Noise suppression bylaw 7059\_1993. 1,4,5

- Regulates noise levels as they may disturb humans; not other organisms
- References barking dogs as nuisance (not in Animals bylaw)
- Allows exhaust gases from motorboats to be passed first through water as muffler (implications for water pollution?)
- Many exceptions to what activities are restricted; including blasting between certain hours
- Implications for air and water quality, noise

#### 17\_Noxious weeds bylaw 8080\_2000. 7,8,10

- Requires property owners to remove "all brush, noxious weeds or other vegetation which because of their condition are likely to spread to or become a nuisance to other real property in the vicinity or which are so unkempt as to be unsightly to nearby residents". Implications- terrestrial ecosystems, agricultural ecosystems?, backyard biodiversity. Doesn't seem to include invasive aquatic vegetation
- Doesn't seem to protect native vegetation or define "nuisance" and "unsightly" to neighbors. Anti-backyard biodiversity?

## 18\_Nuisance bylaw 7622\_1996. 10

- Prohibits land owner/occupier from actions causing land to become nuisance; including “erection of any kind or any pond, excavation, pile or other matter or thing on such land”.
- Doesn't define nuisance.
- Implications for backyard biodiversity

## 19\_Official Community Plan bylaw 8940\_2008. 1,2,3,4,5,6,7,8,9,10,11,12 – many are inferred, not stated

- Bylaw only makes the OCP official- OCP is actually “other strategic” document
- Schedule N contains Development Permit Area guidelines – tool to protect natural environment- provides background and justification
- Includes exemptions - does not require permits if not in Streamside DPA or does not contain listed species or ecosystems
- Encourages behavior- not clear how easily approval granted
- Guidelines vary with development and area

## 20\_Oil burning equipment and flammable liquid and combustible liquid fuel tank bylaw. 9265/9700\_2014/2021. 5,6,11

- Requires removal of underground tanks after deactivation
- Requires soil testing and remediation of contaminated soil after removal of underground tanks
- Restricts installation of fuel tanks
- Requires testing and maintenance to prevent leaks
- Emphasis on safety and avoiding soil contamination

## 21\_Parks Management Control Bylaw 7753\_1997. 1,4,5,6,7,9,10,11,12

- Bans destroying vegetation, rocks in parks
- Bans disposal of organic waste and other garbage in water bodies in parks;
- Bans disposal in park garbage receptacles garbage from outside park
- Bans disposal of burning material on ground
- Bans unauthorized persons from removing sand soil plant material (invasives? Blackberries?)
- Bans “molest, disturb, frighten, injure, catch, trap, or snare any bird or animal in any park or any beach”
- Allows temporary camping in most parks subject to restrictions

## 22\_Pesticide bylaw 2010\_9054. 1,5,6,7,8,9,10,11

- References movement of pesticides through air, water, soil- thus implications for all ecosystems + abiotic, except AT, light, noise
- References precautionary principle
- Emphasis on IPM- lists exceptions; bans pesticide application to manage pests of vegetation
- many exceptions to ban

## 23\_Sanitary sewer bylaw 8792\_2006. 1,5,6,7,9,10,11,12

- Requires those in service areas to hook up to sanitary sewer system
- Prohibits disposal of various wastes into sanitary sewers, including those that contaminate air or could damage sewers
- Property owners responsible for avoiding blockages, including from tree roots, and preventing inflow of uncontaminated (and storm) water

## 25\_Streets and traffic bylaw 8382\_2002. 4,5,6,9,10,11

- References Boulevard Regulation and Buildings bylaws
- Implications for noise, water, soil urban forest and backyard biodiversity, freshwater ecosystems
- Bans unnecessary noise from vehicle; prohibits littering, disposal of hazardous/ organic waste in litter bins
- Bans drippings of oil and grease from vehicles
- Requires landowners to manage streetside vegetation, prevents street tree removal, restricts tree planting
- Bans driving unharnessed pigs and other such animals through streets!

## 26\_Subdivision bylaw 7452\_1995. [1] [2] 3 [4] 5,6,7,8,9,10,11

- Sets rules around what can be subdivided and to what; servicing requirements including paving, lighting, stormwater collection
- Requires applications to map and inventory existing trees and watercourses; sets standards for boulevard trees

- Implications for traffic, impervious surfaces, soil quantity and quality for urban forest; farmland and ag ecosystems;
- Implications for air, air temperature, noise;

#### 27\_Tree protection bylaw 9272 2014/2019 [1] [2] 5,6,7,8,9,10,12

- Restricts removal and damage to larger trees, including to soil around existing trees; sets standards for replacement
- Different restrictions for rural Saanich vs inside UCB; agricultural land incl ALR
- Restrictions to tree removal on steep slopes include coastal bluffs (marine shoreline); does not specifically address anything other than trees and associated soil; has implications for water, soil, ecosystems – possibly also air, air temp,
- Doesn't apply to trees on Saanich land if Saanich okays (or to CRD or Prov of BC or ALR land)
- Requires protection of soil to a distance dependent on tree size [Is it enough given climate change and reduced urban soil quantity and quality?]
- Provides for designation of “significant” trees which meet some threshold; are granted extra protection, and provide incentives to private owners who agree to designation

#### 28\_Truck route bylaw 6346\_1989. 4

- Noise and excessive wear on infrastructure are implied, not explicitly referenced; other cities specifically refer to noise and road wear

#### 29\_Unsightly premises bylaw 9600\_2021 10

- Prohibits “unsightly” properties- specifies what is included/excluded
- Unkempt vegetation is prohibited “unless a Naturescape property”
- Bans littering in public places- supposedly fineable minimum of \$150 – enforceable?
- Implications for backyard biodiversity (and stewardship) possibly soil (litter?, backyard soil health?)

#### 30\_Water utility bylaw 8214\_2000 (amended 2022) 5,6,8,9,10,11

- Allows for hookup and use of water for agriculture and highway landscaping
- Sets rates for residential use, agriculture and farmland; municipal parkland
- Implications for water and soil, terrestrial biodiversity in different land-use situations

#### 31\_Watercourse and drainage bylaw 7501\_1996 1,5,11,[12]

- Prevents fouling, obstructing, impeding watercourses including sewer, ditches, drains; enclosing allowed with District permission
- Regulates storm drain connections
- Prohibits discharge of domestic, trucked liquid, prohibited waste including fill (soil); allows discharge of water incidental to customary residential use
- Requires grease/oil traps from commercial + larger residential establishments
- Defines “air” and air contaminant” – applies under prohibited waste
- Adherence to attached schedules in related bylaws (e.g. schedule H subdivision bylaw)

#### 32\_Zoning bylaw 1 [2] 3,4,5,6,7,8,9,10,11

- Regulates what activities can be done where (residential; commercial, industrial, agricultural, conservation etc)
- Requires “landscape area” for certain structures not specified – seems to include >duplex and some/most commercial. “Landscape area” defined as portion of a lot covered by lawns, trees, plants and other natural or decorative features. Does not specify native vegetation. Opportunity to increase native biodiversity?
- Restricts activities which cause odours (air), noise depending on zoning
- Sets lot sizes for different land uses; regulates building footprint, but not impermeable surface (see Garden suites)
- “Permeable surface mentioned only with respect to off-street parking spaces and preparation of stormwater management plan
- Regulates (schedule B) outdoor (stationary) lighting for commercial, non-single family residential; intent is to minimize light pollution that interferes with Observatory (not biodiversity)- standards differ with increasing distance
- Strong implications for all components of natural environment – air temperature is less direct (via influence on impervious surfaces and room for trees, etc)

## Council Policies (note older council policies often not numbered)

### 33\_Acquisition of floodplain lots 06/1C\_2006 5,7,8,10,11

- Acquire ca. 40 undeveloped floodplain lots in Wallingford Gillie area and hold for park, stormwater mgmt., agr, trails uses

### 34\_Aerial crop spraying \_1983 1,5,6,7,8,10,11,12 (all are implied)

- Specifies requests for aerial crop spraying be considered on individual site and time basis. [Has this been negated by senior government legislation??]

### 35\_Agricultural Land Reserve appeals (unnumbered) 1988 8 [7,9,10,11]

- Policy to establish a policy re exclusions to ALR that Council opposes

### 73\_Asset Management Policy 19/CNCL\_2019 5,6,7,8,9,10,11,12 older

- Recognizes and provides general definition of municipal natural assets “stocks of natural resources or ecosystems that contribute to the provision of services required for health, well-being, sustainability of a community and its residents. But...
- Considers land owned by Saanich which supports engineered assets and undeveloped land owned by Saanich as “engineered assets”. [Land is not natural?]

### 36\_Boulevard tree policy 88/CW\_1988 3,6,7,9,10

- Guidance on what boulevard trees can be removed, maintenance, replacement, homeowner responsibility and interdepartmental responsibility - gives Director of Parks authority to prevent concrete construction within six (6) feet of any tree. Planting of boulevard trees shall not be permitted within six (6) feet of existing above or below ground utility structures without prior consultation with the appropriate utility agency. [Unclear if still in force given tree protection bylaw]

### 37\_Chlorofluorocarbons and halons- use of 1989

- Saanich will not purchase chlorofluorocarbon- based products which are non-essential and if suitable alternatives exist.

### 38\_Committee on urban growth 1981 7,8,9,10

- Endorses recommendations of the ad hoc committee on urban growth, including:
- preserving more open space by considering townhousing for residential development (without increasing the target population growth); Infilling within the UCB; for LAPs consider views of local groups, but with “best interests” of Municipality as over-riding consideration; consider higher densities to preserve open space (without increasing the target population growth).

### 39\_Community gardens policy 03CW\_2003 8,10 (also shown on website as “bylaw)

- Sets out guidelines for establishing, maintaining and operating, and retaining sites
- Two listed in policy – now 3 (added GorgePark)?

### 40\_Community grants program 13/CNCL\_2013 3,4,5,6,7,8,9,10,11,12

- Outlines who and what is eligible for community grants
- Suggests community groups can use for environmental stewardship activities- projects that “enhance public spaces” and “enhance or steward public green space”

### 41\_Environmental and social review process policy 92/CW\_1992 1,2,3,4,5,6,7,8,9,10,11,12

Administered by planning

- Zoning and subdivision applications may be recommended for ESR if: (a) near natural park, watercourse, ALR, floodplain DPA, shoreline (b) outside UCB and rezoning for commercial, institutional or large subdivision (c) deemed “environmentally sensitive” [what does that mean?]; deemed to have “social impact”
- When deciding to recommend, staff consider complexity and whether they can do or if consultant is required at applicant expense
- Sets out timeline and related process incl. input of community assn  
[How many are done; is it still policy?]

### 42\_Environmental impact assessment on municipal properties 96/CW\_1996 1,2,3,4,5,6,7,8,9,10,11,12

- Specifies that departments “from time to time” review planned major works projects with the Env Adv Committee to identify need for environmental assessment and/or env impact reports.

43\_Geothermal heat exchangers in Saanich freshwater ecosystems 08/283\_2008 5,11

- Council rejects geothermal heat exchangers in freshwater bodies until cumulative effects studied [Effects studied?]

44\_Green building policy private buildings 07/230 2007 ???

- Fast tracks “green” building applications
- “green” seems to apply to ongoing energy consumption; not clear if how building materials and design and impacts on biodiversity locally or at point of material extraction are addressed

45\_Green building policy 05/219 2005 5,7,10,11

- Endorses “green building” practices for new and existing Saanich buildings; including LEED level
- Refers to improved stormwater management and “help minimize ecological degradation (habitat, air, water, soil)”

46\_Integrated pest management policy 10/CNCL 2010 1,5,6,7,8,9,10,11

- IPM is priority policy on District lands
- Notes precautionary principle; references “health and environmental impacts” of pesticides
- Proactive approach; Saanich will keep written and photographic records, and maps of areas affected and regularly evaluate (adaptive management); refers to “regular monitoring”
- Precursor to pesticide bylaw??

47\_Landscape enforcement 1986 [6,9,10- possibly]

48\_Landscaping & Screening Guidelines - DPA/CP 1987 6,9,10

- Suggests standards for landscaping around developed lots, including number and size of trees; vegetated ground cover (vs gravel); landscaping around parking lots; protection of existing trees and planting of new street trees at the expense of the developer;
- Seems to be superseded (in part) by tree protection bylaw

49\_Local food procurement policy 12/CNCL\_2012 8

- Intent to support local agriculture by favoring purchase of food produced locally
- All relevant District divisions to ensure that when practical, 40% of purchases shall be local.
- Many exemptions- includes farmers’ markets, licensing of street food and park vendors, vending/snack machines,

50\_Outdoor Lighting - Regulations for Areas Associated with Municipally Controlled Buildings & Structures 92/CW 1992 3

- Policy applied to outdoor lighting of municipal structures w/in 5km of Observatory

51\_Park Development or Improvements 1990 7,9,10,11

- For development projects in parks: where any work would involve natural areas, natural wildlife or ecologically sensitive areas, an environmental assessment will be conducted by the Municipality
- Requires vetting by Parks and Rec committee and the committee to hold public meetings

52\_Parks - Installation of Major Facilities or Services 1983

- Facilities and/or services in Saanich Parks require prior council approval

53\_Purchasing Products & Materials Containing Recycled Content 1989

- Policy “giving preference” to paper purchases containing at least 20% post-consumer (recycled) fibre

54\_Restrictive covenants 1994 7,9,10,11

- Approving officer, municipal engineer, and manager of inspection services can acquire covenants on behalf of Saanich as per provincial enabling legislation

55\_Rezonings Proposed Development-Road Dedication Servicing Req 1988 10

- Council will consider impacts to municipality as a whole of development associated with rezoning with particular reference to costs (to Saanich) of additional road-building

- 56\_ Rights of Way 1977 10
- Permission to consent to easement or right of way crossing municipal (public) right of way
- 57\_ Road allotments 1979 10
- Formalizes accepting of road allotments from subdividers for future (potential) road use
- 58\_ Roads- Design of major roads 1986 10
- Design should acknowledge “adjacent land use” “Boulevard landscaping” “environment”
  - Rights of way and funding must be adequate for boulevard landscaping
  - Overall character of road should be established before design commences
- 59\_ Sewer blockages 1995 5,9,10
- Procedure to assess and assign responsibility for clearing sewer blockages to either property owner or Saanich
- 60\_ Sewer damage claim 88/CW 1988\_rev 2000 ????
- Saanich pays plumber bill and small damage claims for sewer blockages not caused by owner affected
- 61\_ Sewer Service Area - Boundary extension for health hazard when pump station required\_80/303C 1980, amended 2007. 5,6,11
- Allows for extension of sewer service if sewage disposal in area adjacent to sewer lines is failing, a health hazard, the sewer line has sufficient capacity, and affected property owners pay the cost of hookup and pump station (if gravity flow not possible)
  - Implications for containing urban sprawl
- 61a. Small apartment infill policy 23/CW 2023 2,3,5,6,7,9,10,11
- Goal is to maximize housing on smaller lots, consistent with area plan
  - Vague references to “green space”: common area size not specified but should have at least one tree; no requirement for private amenity space. “Minimize impermeable surface area”. Outdoor “light” is mentioned, only in context of amenity
  - No specification for number of potential residents which could be added in small area
- 62\_ Smoking ban municipal facilities 90/CW 1990 1
- Bans “smoking” in municipal facilities and vehicles (if non-smokers present and object)
- 63\_ Sound barriers in Saanich\_general approach 1992 4
- Noise barriers will not be considered as a general solution to reducing traffic noise but depend on clearly identified need, site specific requirements, and neighbourhood acceptability.
  - Each will be assessed individually by the advisory design panel
- 64\_ Storm drains and sewer lines\_maintenance 1987 5,9,11
- Procedures and assigning of responsibilities for clearing storm sewers between Saanich and private property owner- emphasis on blockage by tree roots
  - May affect urban forest if removal of offending tree is required
- 65\_ Street lights 1978 3
- Future installations of street lights will use Sodium Luminaires where feasible.
- 66\_ Subdivision\_parkland provision 1986 7,10
- Subdivision owner to provide parkland in subdivision (if designated in OCP) or cash in-lieu
- 67\_ Subdivision\_provision of public access to water 1979 11
- Supports granting public access to bodies of water as part of subdivision process
- 68\_ Subdivision\_refusal 1978 10
- Endorses refusal of subdivision if “remainder” portion does not meet minimum lot area
- 69\_ Subdivision application (panhandle lots)\_reduced frontage 99/321 1999 3,9 [5,6] 10

- Applications for exemption to requirement for minimum frontage (Municipal Act) can take into consideration: conflict with natural features; extent to which proposed building causes loss of trees (inferred- damage to soil and groundwater via blasting) overshadowing and blocking sunlight

#### 70\_ Surface stormwater management development guidelines 01/CW 2001 5,7,9,10,11

- Addresses use of public park land for stormwater management and wetlands creation
- Discourages building of man-made subsurface stormwater storage facilities
- Parks with “significant trees, other environmental assets...” not likely considered as suitable
- Any facility created must be asset in terms of hydrology, environmental restoration and habitat creation

#### 71\_ Toxic real estate development 1990 6

- Specifies environmental audit needed before development is approved on wide and specified variety of sites subjected to potential historic contamination. Audit to be under supervision of Ministry of Environment

#### 72\_ Traffic islands design and landscaping 1985 10

- Parks Dept designs and landscapes traffic islands at developer expense or assigns responsibility to developer
- Traffic islands as part of subdivisions? Or?

### Other strategic documents

#### 74. Active transportation plan 2018\_in revision 2023

#### 75. Agriculture and food security strategy 2018 5.6,7,8,9,10,11,12 [1,4]

- one action is to review related bylaws and council policies to ensure they are consistent with this strategy and then update (those?) as feasible. 22 bylaws, policies, OS documents (LAPs listed as 1) listed- overlap with this list.
- Supports implementation of Panama Flats concept plan (2014, see below)
- Support composting via Victoria Compost Education Centre, policies, bylaws
- Mitigate drainage impacts from development on farmland; encourage rainwater harvesting to minimize pressure on CRD water supplies, streams and aquifers (how much is drained from aquifers?)
- Promote retention and development of native pollinator habitat
- Increase food production opportunities on public land (details? Conflicts?)
- Many proposed actions involve “investigate” “promote” “explore” “work with”
- **Implementation: could be led or supported by District with NGOs as partners; rate of implementation determined by resources available and conflicting demands**
- Identified priority actions and indicators. 5 year progress report issued 2023 and on website
- Saanich strategic plan 2023-2027 states “implement key elements”

#### 76. Asset management strategy 2023 5,6,7,8,9,10,11,12

- Notes importance of valuing natural assets- Saanich doesn’t do that yet
- Links natural assets to current strategic plan; climate plan (2020)
- Doesn’t value specific assets except replacement trees
- Strategy 5.3 Complete natural asset inventory (Prov of BC suggests by 2024)
- Appendix shows importance of including current strategic plan in identifying priorities
- Strategic plan indicators for natural assets and environment are very vague and weak
- Timeline: complete natural assets inventory from Q1\_2024 to end Q2 2025; complete plan Q3\_2025 to end Q2\_ 2027

#### 77. Bowker Creek initiative (CRD??)

#### 78. Burnside Tillicum action plan 2005 1,2,3,4,5,7,9,10,11,12 (see Tillicum Burnside action plan, below)

#### 81. Climate plan 2020 (to be revised 2024?) 1,2,[3],4,5,6,7,8,9,10,11,12

- No targets for accomplishing many of the below sub-strategies
- Suggests noise (indoor) can be mitigated by high-performance buildings; in general, by increasing proportion of vehicles which are electric (and decreasing proportion which are combustion-based)
- Strategy F2 (Food and Materials) targets reducing solid waste, including single-use plastics (latter underway, led by “Building Bylaw Licensing Legal”)



- Strategies B4 and B5 (Building and infrastructure) refer to stormwater and impermeable surfaces
- Strategies E1 and E2 (Ecosystems) address natural environment. 15 substrategies
- Shows “initiation timeline” only except for E1.1. Most identified as “high priority”. No indication of how most will be accomplished (lack of awareness of what to measure and how; not clear what is considered success). No completion dates, just caveat relating to other strategic and budget priorities.
  1. Double the rate of planting trees to enhance the urban forest – plant 10000 new trees by 2025
  2. Increase stewardship tools for private landowners (e.g. Naturescape)
  3. Implement “natural Intelligence” program in Parks
  4. Develop operational approach to retaining tree canopy during development- internal working group to “consider additional and potentially competing objectives such as tree canopy cover, enhancing biodiversity, increasing urban density, and expanding the active transportation network”. [What does “consider” mean?]
  5. Protect and expand the urban forest through an updated strategy, updated monitoring, stronger protection, urban reserve fund
  6. Develop biodiversity conservation strategy
  7. Expand connect and restore natural areas “through a variety of strategies”
  8. Partner with school districts
  9. Explore carbon dioxide removal measures [via management of natural areas]
  10. Prevent planting and spread of invasive plants
  11. Improve monitoring of ecosystem health
  12. Develop principles for assisted migration
  13. Improve compliance with new bylaws and policies [refers specifically to ecosystems and stewardship]
  14. (2.1) evaluate services provided by natural assets
  15. (2.2) develop strategies to maintain services provided by natural assets

82. Craigflower watershed management plan 1998

83. Cuthbert Homes management plan 2015

84. Development permit guidelines 2008 [following notes are from draft revision Nov 2023] 3,4,5,6,7,8,9,10,11, [12?]

- intended to communicate design “expectations” for development
- exempts need for development permit within DAP if impervious surface < 250m<sup>2</sup>; numerous other exemptions
- different guidelines for different types of developments and depending on inclusion in specific DPA vs general
- **does not require certain standards**, but not clear. Section 8.6 Guidelines for Garden Suites distinguishes between “shall” and “should”. Note- “shall” means guideline is “mandatory” but variations may be acceptable at the discretion of the appropriate planning official. Thus, it is unclear to what extent environmental guidelines are required.
- specifically references “bird-friendly” building design; “growing the urban forest and enhancing green infrastructure”; “urban agriculture” opportunities at street level and on building rooftops “noise impacts from the street”; “landscape-based stormwater management”; buildings and landscapes should be sited and designed to respond to natural topography and protect significant natural features wherever possible
- General environmental guidelines refer to:
  - Bird-friendly building design, landscaping, and lighting/mechanical strategies
  - Minimizing impervious surface cover
  - Protecting and enhancing remnant riparian zones, watercourses, urban forest
  - Preserve areas (with buffers) containing listed species
  - Remove invasive species as per noxious weeds bylaw
  - Preserve open space using covenants
  - Apply Naturescape principles
  - Plant vegetation screens using appropriate native species
- Potential conflicts between maximizing sunlight, privacy and shading

85. Durrell Creek watershed management plan 2000

86. Elk-Beaver Lake management plan 2020. CRD, but Saanich has significant role

87. Global age-friendly cities plan 2008

88. Gordon Head action plan- Greenways, Bikeways, and Pedestrian Mobility 1999 3,7,9,10

- Refers to outdoor lighting as desirable amenity for greenways

- Notes noise from nearby traffic can make walking less enjoyable; street trees can abate noise
- Notes importance of street trees for providing habitat
- Applies to restricted geographic area
- Specific actions suggested
- Timeline for actions- “short-term actions” and “long-term objectives” and specific
- Unknown if actions implemented

89. Haro Woods park management plan 2018

90. Healthy Saanich community workshop report 2013

91. Invasive species management strategy 2013 6,7,8,9,10,11

- Focus on vegetation but acknowledges invasive animals- bullfrogs, eastern grey squirrels, rabbits, feral cats, but not rats, wall lizards, birds, insects; notes problem with feeding wildlife; Refers to noxious weed bylaw and animal control bylaw
- Consultations for strategy development suggest “Pulling Together” take lead in control and management of established populations of invasive vegetation with District providing support via volunteer coordinator(s), outreach, technical support. Funding issues- need to explore **partnerships with outside groups to help fund needed initiatives**

Some actions proposed:

- Continue to develop” program to map and inventory, develop protocol, monitor, track, record, invasives; Determine appropriate responses for animals; continue to inform community or progress and challenges
- Measures of success: include % area of Saanich natural areas inventoried; % of area restored once invasives removed
- Set priorities for ecosystems and sites
- **No measurable targets or timeline- dependent on inclusion in strategic and departmental plans and subject to budget process**

92. Local area plans (various dates)

93. Official Community Plan 2008 (strategic updates underway 2023) – will include development permit guidelines

94. Panama Flats concept plan 2014 5,6,7,8,9,11

Recommendations/targets/timelines:

- Agriculture and food security strategy (2018) recommends implementation of plan
- Saanich strategic plan 2023-2027 recommends “revisit”ing concept plan [sometime before 2027]

95. Parks Recreation Culture master plan 2013

- Most up-to-date master plan on website; intended to go from 2013 through 2020; “align with ...OCP...”
- No statutory authority, just guide to decision-making
- Vision includes “environmental integrity” “environmental sustainability”
- Recommendations/**Indicators**: “continue to (1) build comprehensive inventory and report annually (implement UFS(2010) (3) Invasive species mgmt. strategy (4) implement Park natural areas plan and guidelines (5) explore “experimenting with fruit and vegetable-bearing trees and plants” [native vegetation traditionally used by First Nations?]
- **Timeline** update every 10 years
- Notes challenges, including declining resources relative to population, demands for inventory, “stewardship”; increased need for transparency in decision-making and communication (access)
- Notes need to consider alternate funding strategies/partnerships for operations, mgmt. prior to acquisition (also in 2001 plan)- extended opportunities for volunteers and community assns.; formal relationships with public and private entities, NGOs
- Notes that OCP standard of specified park area per 1000 residents is a minimum, but sometimes misinterpreted as maximum. [Note: same is happening now with 3-30-300 “rule” adopted by council- some staff think 30% canopy coverage is acceptable ceiling, not floor]
- Identifies weakness in cross-department planning and need to fix
- Notes conflicting views on dog management in parks
- See also Natural areas guidelines and plan  
**Natural areas action plan 2012-2017 2011:**

- Intended timeline of 5 years
- Focus on invasive mgmt. (Invasive species mgmt. strategy 2013); mapping, inventory and monitoring; community collaboration; park mgmt. plans
- Mapping- focus on SEI- useful for broad scale planning, not intended to provide detailed info; not complete. Need data entry to GIS, update every 5 years; compatible with UFS implementation and could engage graduate students in inventory; target completion 2015 then remeasure periodically; in-house staffing insufficient
- Community collaboration notes working with specialists in parks, also initiation of Pulling Together
- Recommends priority areas for specific park management plans: includes Knockan Hill, PanamaFlats, Layritz and Colquitz complex as longer-term priorities; MtDoug MtTolmie, Rithets, Bow/Feltham and others as more immediate. Park plans (on website) completed since 2011 include Cuthbert Holmes, HaroWoods, Panama Flats (now out-of-date?)

97. Prospect Lake Tod Creek action plan 2001 5,6,7,8,9,10,11

- Provides a vision to 2020
- Focus on surface and ground water quality; stressor/threats, and actions to improve;
- Organization: strategies fall under objectives (maintain and restore riparian area; support community stewardship;
- Strategies include establishing DPA; extending tree protection; tax incentive to property owners who protect riparian vegetation; keep nutrients/pollutants out of water; minimize runoff (notes relation between impervious surface % and stream health
- Identifies priorities and timeline, measures of success
- Implemented?

98. Quadra corridor action area plan 1996

99. Shelbourne Valley action plan 2017 3,[4],5,6,9,10,11

Vision- Bowker Creek to be restored; urban tree canopy to be enhanced; Shelbourne to be revived as "Street of Remembrance"

**Includes:**

- 4.1.3 Promote the use of Natural State Covenants to protect remnant Garry Oak ecosystems
- 4.1.4-4.1.5 Identify additional areas of environmental significance for protection
- 4.2.1-4.2.2 improve stormwater management in the Bowker Creek and Douglas Creek watersheds
- 4.2.3-4.2.10 Implement Bowker Crk Blueprint; support restoring and daylighting the creek
- 4.3.1-4.3.2 Protect the urban forest and enhance tree canopy cover
- 4.3.11, 7.1.2 Increase the recognition of Shelbourne Street as a Road of Remembrance and assess opportunities for planting new London Plane Trees
- 4.11-4.16, 5.9.1,5.9.2,7.2.1 Preserve the Valley's heritage and connection to the natural environment including viewscales

**Sets priorities for actions including**

- Consider additional identified areas for inclusion in ESA atlas (medium)
- adopt stormwater bylaw (high)
- secure properties to protect Bowker Creek (medium)
- work with Victoria Oak Bay to develop common DPA guidelines to protect Bowker Creek (medium)
- assess opportunities, constraints to daylight creek (high)
- "will be **monitored** regularly for effectiveness"; **implementation** to depend on annual strategic planning and budgeting

100. Short St action plan 1999

101. South Wilkinson Valley action plan 2002 3,5,6,7,[8],9,10,11

- Recommends limits to outdoor streetlights consistent with municipal standards to minimize light pollution (to the observatory, not for biodiversity)
- Recommends removal of land from ALR- (formerly farmed, justification was contamination by failing septic systems)
- Seeks to restrict amount of impermeable surface- targets not specified
- Soil referred to only in context of impermeable surfaces
- References to stormwater management and improving stream-related function and habitat quantity and quality

- Recommends protection of existing native trees and additional plantings
- Timeline and specified targets not obvious

102. Swan Lake action area plan 1995(amendments to 1998) 7 [11]

- Developed in response to concerns about the interchange and subsequent development moratorium
- Recommends addition of land to Sanctuary and trail between lake and Christmas Hill
- No specific reference to “ecosystems etc” just the need to complete trails, add to property

103. Tillicum Burnside action plan 2005 (also shown on Saanich website as “Burnside Tillicum action plan 2005”). [1,2,3,4,5,7],9,10,[11,12]

- Principles include: “ecological impact reduction”; “green the street”
- Clearly refers to “street trees” and “landscaped green strip” (urban forest, backyard biodiversity); potential effects (but not articulated) on air, air temp, light, noise, stormwater, terrestrial ecosystems, fresh- and saltwater ecosystems
- Recommendations, but no timelines for targets

104. Tod Creek Flats integrated management plan 2008 5,6,7,8,9,10,11

- Focus on management of flats; related to Prospect Lake Tod Creek action plan, but that is not mentioned
- Notes effect of pumping and drainage for framing on soil subsidence (also effect on organic matter decomposition and carbon emissions?)
- Good references to old maps showing historical land use
- Pre- and post-development effects on stream channel density, wetland area, urban forest canopy coverage
- Identifies information gaps that need addressing
- Implemented?

105. Uptown Douglas corridor plan 2022

106. Urban forest strategy 2010 (in revision 2023) 1,2,5,6,7,9,[11],10

107. West Saanich Road streetscape action plan 2005 3,9, 10

- Refers to street lighting in the context of appropriate (heritage) design
- Need to protect mature native oaks; refers to “significant trees” (p5)
- References to “landscaping” could imply biodiversity but specifically references aesthetics, viewscape, neighborhood character, etc
- Goals seem clear; timeline not clear- suggests implementation will occur over time based on funding and development proposals and land use change

108. Garden suite guidelines 2020 (to be included in updated Development Permit guidelines)

### Other relevant policies not listed under “Bylaws”, Council Policies” or “Other Strategic” documents

**Saanich Strategic Plan 2023-2027.** 2023. (see also [previous strategic plans](#) to assess what was promised in previous years with respect to relevant policies; [annual reports](#) to assess what staff said was accomplished)

Actions:

- Introduce EPF with focus on climate plan, enhanced stewardship, biodiversity [not clear what the last two intended to mean]
- Implement “key initiatives” from agriculture and food security strategy and implement invasive species strategy; implement (new) urban forest strategy; develop biodiversity conservation strategy
- “Continue to advance” ISMPs; including completing “baseline” studies for Colquitz...
- “Develop” an up to 100000 trees (planted) in 10 years initiative
- “Revisit” the Panama Flats concept plan
- Develop community-wide “zero-waste” strategy
- [Note- environment and housing sections are written in way to not acknowledge possible conflict]

**Administrative (departmental) policies**

Operational policies that reside within a department, are not shown on website, and updated or deleted by the department and approved by the leadership team<sup>9</sup>.

Such policies may have effects on components of natural environment but generally haven't been examined here

Includes purchasing policies. Saanich departments are not limited to purchasing only those products with the lowest up-front cost<sup>10</sup>. For example, Engineering could specify a type of concrete for sidewalks that has lower lifecycle CO2 emissions than "standard" concrete if it meets engineering standards. Presumably, this could also be a requirement of new building construction if engineering standards are met.

**Council procedures bylaw**

- Affects community input on issues pertain to natural environment

**Freedom and information and privacy protection bylaw**

- Affects community access to publicly-funded data, policies, rationale etc. relevant to natural environment

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<sup>9</sup> Personal communication, District of Saanich 01 Nov 2023

<sup>10</sup> Personal communication, District of Saanich Finance Dept. 01 Nov 2023



The background of the entire page is a photograph of a field of purple flowers, likely chives, with green grass and stems. The flowers are in various stages of bloom, and the overall scene is bright and natural.

# Saanich Environmental Policy Framework DRAFT

Initial draft prepared by the  
Resilient Saanich Technical Committee for District of  
Saanich Staff April 21, 2023

Revised by District of Saanich Staff **October 2023**

## Territorial Acknowledgement

The District of Saanich is within Coast and Straits Salish territory, the territories of the lək'wəŋən peoples, known today as Songhees and Esquimalt Nations, and the W̱SÁNEĆ peoples, known today as W̱JOŁEŁP (Tsartlip), BOKÉĆEN (Pauquachin), S̱ÁUTW (Tsawout), W̱SIKEM (Tseycum) and MÁLEXEŁ (Malahat) Nations. The First Peoples have been here since time immemorial and their history in this area is long and rich.

The District respectfully acknowledges the First Nations' long history of land stewardship and knowledge of the land and will look for opportunities to learn from and collaborate with First Nations to help us improve our community's resilience.

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Cover image: Sea blush © Judith Cullington



# 1. Introduction

## 1.1. A Coordinated Approach to Environmental Stewardship

The Environmental Policy Framework (EPF or the Framework) provides guidance to create a coordinated approach for environmental projects, programs and policies led by Saanich. It outlines Guiding Principles and Goals to assist District staff to align environmental policies and programs to support a Sustainable and Resilient Saanich. It reinforces a strong and united culture of environmental protection and enhancement among staff in their work related to the natural environment.

As outlined through Council's direction (November 6, 2017) and in the Terms of Reference of the Resilient Saanich Technical Committee (original adopted August 9, 2021 with revisions October 25, 2021 and August 22, 2022) the strategic pillars of the Framework include the Climate Plan, a Biodiversity Conservation Strategy, an enhanced stewardship program, and the potential for a new Environment Development Permit Area (EDPA).

The RSTC through their Terms of Reference further suggested that the EPF should be broad enough to "encompass all aspects of District work related to the environment including the need to update existing bylaws, policies and programs as well as new ones." The TOR further states that "some work will have a direct focus on the environment and others may have a different operational focus that nevertheless have the potential to impact or influence the environment in significant ways."

A draft document was prepared by the Resilient Saanich Technical Committee (RSTC) with support from Judith Cullington. The draft was presented to staff in April 2023. As outlined in the RSTC Terms of Reference, the Committee was to prepare a draft for staff's consideration. Under the direction of the CAO, staff from across the District reviewed the draft and provided input during summer 2023. The RSTC's draft has been revised to incorporate staff feedback to create a practical and implementable framework which is presented in this document. Of note, the proposed framework is focused on:

- The implementation of the Climate Plan, Biodiversity Conservation Strategy and an enhanced stewardship program,
- New and revised environmental policies and programs, as well as the plans and strategies noted above,

- Supporting staff in their ongoing work on projects and policies that relate to the environment across departments.

### **Natural environment**

Saanich’s physical setting contains a mix of marine shoreline, freshwater lakes, natural watercourses, and diverse rolling topography with elevations ranging from sea level to 355 m. The landscape includes glacially scoured rock outcroppings, farmland, dense woodlands, and an extensive system of open space and parkland. Approximately half the Municipality is urban and half rural/agricultural – a dual role that has influenced its character and development (Saanich Draft OCP, May 2023).

In this document, “natural environment” encompasses:

- all living and non-living things occurring naturally within the District of Saanich,
- the interaction of all living species, climate, weather and natural resources that affect human survival and economic activity within the District of Saanich.

The 2008 OCP makes the following reference to natural environment, which has been carried forward in the current draft OCP:

Natural and semi-natural areas, both land and water, that have ecological, scenic, renewable resource, outdoor recreation, and/or greenway value. The ‘natural environment’ may be within developed or undeveloped areas, whether publicly or privately owned, and not necessarily an undisturbed area.

Natural environment – Saanich Draft OCP (May 2023)

As stated in Saanich’s Official Community Plan<sup>1</sup> (OCP) vision, a healthy natural environment is a fundamental priority for Saanich Council and residents:

*“Saanich is a sustainable community where a healthy natural environment is recognized as paramount for ensuring social well-being and economic vibrancy, for current and future generations.”<sup>2</sup>*

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<sup>1</sup> [2008 OCP](#) . Note that an updated OCP is in development.

<sup>2</sup> <https://www.saanich.ca/EN/main/community/community-planning/official-community-plan-ocp.html>, page 10.

This importance is emphasized in numerous draft OCP policies (May 2023), Saanich-wide plans and strategies, department specific plans and strategies, and committees of Council such as the “Sustainability and Climate Action” and “Natural Areas, Parks and Trails” committees.

In addition, Saanich residents place a high importance on a healthy natural environment. This is demonstrated by their strong interest and involvement in maintaining and enhancing the natural environment on their own properties and through assisting with environmental stewardship on public lands through Saanich’s Pulling Together Program, Park Ambassadors, and other environmental stewardship programs.

The EPF’s Guiding Principles and Goals are consistent with the Saanich Vision in the draft OCP (May 2023) and will guide Saanich’s approach to protecting and enhancing the natural environment (Figure 1). Plans, policies, and programs within each theme area (such as climate action, biodiversity conservation, and enhanced stewardship) will support Climate Action and Environmental Leadership. This will ensure that Saanich stewards the environment, **that its building typologies reflect Saanich’s environmental and climate concerns**, and that it implements innovative solutions and practices to reduce emissions, mitigate and adapt to the effects of climate change, and protect the environment (Council’s Strategic Plan 2023-2027?)

PLACEHOLDER – DIAGRAM in DEVELOPMENT

Figure 1: Conceptual diagram: Environmental Policy Framework

Saanich’s Draft OCP (May 2023) states:

“Environmental protection and climate action are priorities for the District of Saanich and fundamental components of a healthy, resilient, and sustainable community. Maintaining adequate greenspace, biodiversity, and well-functioning natural areas is important to both ecosystem health and human health. It is also a central component of One Planet Living [note: this is a cornerstone policy of the revised OCP].”

## 1.2. Context

As noted in the territorial acknowledgement at the outset of this document, the Lək̓ʷəŋən and the W̱SÁNEĆ peoples have been caring for the land known now as Saanich since time immemorial. Their role as protectors of the land continues to be vital today. The District of Saanich recognizes that importance, entering into a Memorandum of Understanding

([ÁTOL,NEUEL, “Respecting One Another”](#)) with the WSÁNEĆ Leadership Council (WLC) formalizing Saanich’s commitment to reconciliation and pursuing opportunities for collaboration including opportunities for indigenous people to practice traditional activities in Saanich. While the District has a formal MOU with the WLC, it remains committed to working with the Lək̓ʷəŋən peoples known today as the Songhees and Esquimalt Nations as well as with other indigenous people that live and work in the District.

As outlined in Saanich’s OCP, Saanich is home to some of B.C.’s most unique and rare ecosystems and species. These include biologically diverse areas of intact Coastal Douglas- fir forests and remaining pockets of Garry Oak ecosystems. Saanich also has a rich marine foreshore, productive lakes and wetlands, and complex river systems. These support a diversity of plant, insect, fish, and wildlife populations and communities. Local indigenous people cared for land, water and the plants and animals that lived there to ensure that future generations could be sustained. Their relationship with ecosystems and all that they contain is one of respect.

Saanich’s natural areas also provide important ecosystem services such as filtering water, purifying the air, regulating climate, and storing carbon that would otherwise contribute to climate change. Natural areas support the District’s Stormwater management by reducing flooding and filtering contaminants. Protecting and enhancing natural areas ensures that they will continue to provide these vital services. It also makes them more resilient to urban development, climate change, and other pressures.

There are numerous and growing threats to natural areas. In addition to the threat of loss of indigenous culture and practices, there are direct permanent impacts such as the clearing of natural ecosystems for urban development, indirect impacts from human activity such as invasive species, and the changes brought upon the natural environment by sea level rise, drought, wildfires, , and storms. Often, these threats and impacts are interconnected and compounding. For example, plant stress caused by climate change can increase plants’ vulnerability to pests and diseases and urban development can cause increased environmental disturbance and fragmentation which can facilitate the spread of invasive species. While some of these impacts are permanent, others can be mitigated through ecological restoration activities.

The Resilient Saanich initiative is an integral component of the District’s response to biodiversity loss, climate change, and the many threats facing its natural areas. Initiated in 2020, Resilient Saanich includes this Environmental Policy Framework to provide guidance for new environmental policies and programs with a primary focus on the Climate Plan, the Biodiversity Conservation Strategy, and the enhanced Stewardship Program. As these are

completed, other environmental policies and programs will be drawn into this framework. This phased approach allows for Saanich to integrate policies and programs related to the environment in a manageable and thoughtful manner given current and future capacity and competing priorities.

In September 2023, the Province provided Saanich with specific Housing Targets that through an Order in Council requires Saanich to provide 4,610 new units in five years (just over 900 a year, which is three times the current average). To fulfil this Order, Saanich is working on a number of ways to facilitate development. The EPF and associated plans and policies must work together with development policies and processes to ensure Saanich meets its Order and continues to be a community with strong environmental qualities, and values.

The Framework consists of a set of guiding principles and goals. The principles should guide the development of new policies and programs as well as existing ones that that come up for review. The goals provide an approach to implementing the Framework.

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## Background: Environmental Policy Framework

Saanich introduced an Environmental Development Permit Area (EDPA) bylaw in 2012. This bylaw was created to ensure that new subdivisions and/or structures would not harm native species, rare and endangered ecosystems, and/or natural features. The bylaw proved controversial in its implementation. Some Saanich residents expressed strong disfavour with its enactment, resulting in its rescindment by Council in 2017. At the same time, many residents were in favour of keeping the bylaw in place.

Following the decision to rescind the 2012 EDPA, Saanich Council sought an alternative to accomplish the goal of environmental protection in the District with broader public support. An overarching framework for improved coordination of environmental programs and policies was initiated. In November 2017, Council passed a motion:

*“That Council direct staff to bring Council a report as soon as possible on the potential of developing a Saanich program which includes the topics of Climate Adaptation, a Biological Conservation Strategy, and Stewardship Program to serve as a policy framework for other Saanich environmental policies and programs, and a new Environmental Development Permit Area be considered part of this program; and that the Diamond Head report recommendations be considered a component of this report.”*

The **Resilient Saanich Technical Committee** was established as an independent technical committee of natural resource practitioners and specialists. The purpose of this Committee, as outlined in its [terms of reference](#), is to “provide independent analysis, recommendations and other input as might be helpful to Council, Staff and consultants to shape and inform the development of an Environmental Policy Framework.” Tasks assigned were:

- ◆ Rationalize existing and new environmental policies and programs into the Framework;
- ◆ Develop a new Biodiversity Conservation Strategy\* and enhanced Stewardship Program to serve with Saanich’s new Climate Plan as the strategic pillars for the Framework;
- ◆ Evaluate the strength of the Environmental Policy Framework (EPF) and the Biodiversity Conservation Strategy (BCS) to replace the EDPA.
- ◆ Identify a range of potential policy tools, possibly including a new EDPA, for managing the environment in Saanich.

\* contracted to Diamond Head Consulting to complete.

## 2. Environmental Policy Framework

### 2.1. Guiding Principles

The Environmental Policy Framework Guiding Principles serve to guide Saanich's existing and new environmental policies and practices. Principles were developed by the RSTC and endorsed by the Committee in August, 2023. Staff have made revisions for comprehension and consistency with other policy directives. They are consistent with the District's [Strategic Plan](#)<sup>3</sup> and OCP Vision.

The eight Guiding Principles of the Environmental Policy Framework are:

1. *Recognize the intrinsic value of nature.*
  - This is an ethical commitment to recognize and respect the right to existence of other life forms and the ecological processes that support us all.
2. *Build relationships and undertake appropriate actions of reconciliation with indigenous groups and First Nations. For example, action the ATOL, NEUEL Memorandum of Understanding with the WSÁNEĆ Leadership Council.*
3. *Use evidence-based decision making; take precautions and use a continuous improvement approach when supporting science is absent or insufficient.*
4. *Lead by example through innovation and improving on best practices for management of human activities in relation to the natural environment.*
5. *Look beyond Saanich's borders to achieve results at a bioregional scale.*
6. *Identify and highlight co-benefits of addressing climate adaptation and mitigation.*
7. *Collaborate with people of diverse interests and backgrounds to develop more durable, fair, and effective environmental policies and programs.*
8. *Ensure open, accurate environmental information to encourage an informed citizenry that participates in building policies and programs for a more resilient Saanich.*

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<sup>3</sup> District of Saanich Strategic Plan 2023-2027.

Section 4.2 and Appendix D discuss how these Guiding Principles can be used as a tool to assist in the development of new environmental policies and programs and to evaluate existing policies when being updated.

## 2.2. Environmental Policy Framework Goals

Four goals are suggested to frame an approach to implementing the EPF.

### **Goal 1. Objectives of the Natural Environment Section of the OCP are fulfilled through a variety of programs.**

Goal 1 aims to enhance biodiversity and essential ecosystem services through the implementation of the Natural Environment Objectives in the OCP. This goal focuses on direct actions to protect, restore, and enhance the natural environment.

Examples of District of Saanich actions that would support this goal include:

#### **On-the-ground activities:**

- ◆ Restoration and enhancement of natural parklands.
- ◆ Daylighting of streams where there is greatest positive benefit.
- ◆ Identification, protection, restoration, and enhancement of sensitive ecosystems as well as riparian areas and marine foreshores.
- ◆ Protection, maintenance, and enhancement of the urban forest.
- ◆ Restoration and enhancements of private lands (such as backyards) and larger holdings.
- ◆ Increased support for the Pulling Together, the Park Ambassadors Volunteer Programs, and other stewardship initiatives on public and private lands.
- ◆ Assessment of the condition of Natural State Covenants in Saanich.

#### **Environmental education and outreach:**

- ◆ Encouraging citizen science monitoring.
- ◆ Promoting sustainable agriculture practices.
- ◆ Promoting pollution source reductions.
- ◆ Promoting more “environment-friendly” developments.
- ◆ Encouraging backyard biodiversity.
- ◆ Establishment of key strategic partnerships (ex. First Nations, HAT, School Districts, etc.).



**Internal Saanich activities:**

- ◆ Improvement of ecosystem and biodiversity monitoring and mapping in the District.
- ◆ Developing management plans for parks and nature reserves that include protection, enhancement and restoration of natural areas and biodiversity.
- ◆ Completing a gap analysis and/or application of the Policy Evaluation Matrix, of which one example is included as Appendix C.

Achieving this goal requires implementation of key strategies and plans including the Biodiversity Conservation Strategy, the Climate Plan, the Natural Assets Management Plan, and the Urban Forest Strategy.

**Goal 2. Policies and programs related to the natural environment are aligned with the Guiding Principles and relate to the other pillars of the Official Community Plan (Social and Economic).**

Goal 2 promotes a culture of environmental stewardship and accountability within Saanich so that environmental impacts may be considered in operational actions and Council decisions. While environmental impacts are already considered in many projects and programs, this goal focuses on the need for a coordinated and aligned approach to minimize unintended consequences. The EPF Guiding Principles will help guide the development of future environmental policy. Of note is that consideration of the Principles should be carried out while also considering the social and economic pillars in the OCP. This will allow critical items such as the Provincial Housing Targets to be fulfilled.

Actions related to this goal are shared throughout the District and can be found within the Climate Plan, the Biodiversity Conservation Strategy (in development), the Urban Forest Strategy (in development), Natural Assets Management Plan (to be developed), and Integrated Stormwater Management Plans (in development). Examples of actions that would support this goal are:

- ◆ Assessment of existing regulatory, management, and administrative tools to identify gaps and inconsistencies with the Guiding Principles.
- ◆ Planning and preparing new environmental programs and policies.
- ◆ Promoting ongoing inter-departmental cooperation to evaluate and address environmental impacts of policy decisions and enhance environmental benefits.
- ◆ Promote District wide training on environmental protocol process.

**Goal 3. Mitigation and adaptation actions are taken to reduce climate risks to the natural environment.**

Goal 3 highlights the importance of ongoing risk assessments related to climate impacts on the natural environment and emphasizes the need to take action to reduce these. While Goals 1 and 2 are also related to this one, climate change is a major stressor on the natural environment and actions need to be taken to mitigate and adapt to the impacts.

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### 3. Measuring Outcomes

Progress towards meeting the goals of the Environmental Policy Framework will be measured primarily through the outcomes of new environmental policies and programs and those that undergo revisions.

Goal 1 urges on-the-ground action towards a more Sustainable and Resilient Saanich through implementation of the objectives in the OCP. These will be achieved mainly through the implementation of the Biodiversity Conservation Strategy, the Climate Plan, the Urban Forest Strategy, and the Natural Asset Management Plan. Progress can be reported regularly through these individual plans and strategies or could be reported using a more central approach such as a State of Saanich Environment report, repeated at appropriate intervals. A centralized report might look at indicators such as:

- ◆ Hectares of Saanich that have been restored or enhanced (including clearing of invasives and restoration planting),
- ◆ Changes in urban forest canopy cover (positive or negative),
- ◆ Kilometres of stream restoration/enhancement and kilometers of stream in natural conditions,
- ◆ Sensitive ecosystems in “protected” status,
- ◆ Percentage of staff receiving training.

Goal 2 guides District staff to build and continue to align policies, strategies, regulations and incentives aligned with the EPF’s Guiding Principles. Implementation of the Climate Plan, Biodiversity Conservation Strategy, Urban Forest Strategy and the Natural Asset Management Plan are examples where staff can continue to work across departments to fulfil goals and actions. Indicators of progress could include:

- ◆ Projects and policies that affect the environment that have been developed following the Principles of the Environmental Policy Framework.
- ◆ Projects and policies that affect the environment that have been developed using an inter-departmental approach.
- ◆ Regular public reporting of progress on specific environment-related strategies and plans (or a centralized “state of environment” type of reporting).
- ◆ Public awareness of the environmental values noted in the OCP that Saanich is aiming to implement and realize.

Completing a gap analysis related to environmental policies and programs will be the first step in fulfilling Goal 3. From there new policies and programs can be developed or existing ones can be altered to fill priority gaps.

Currently outcomes related to Goal 4 are reported on in the Annual Climate Plan Report Cards, however those could be moved into a more comprehensive State of Environment Report for Saanich.

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## 4. Implementing the Environmental Policy Framework

The Environmental Policy Framework is intended to apply to new or revised policies and programs related to the natural environment. A phased approach to implement the Framework is recommended beginning with the items that Council outlined in their direction in 2017: the Climate Plan, the Biodiversity Conservation Strategy, and an enhanced stewardship program. Further environment related policies and programs can be brought under the framework as they are developed or revised. Implementing this framework will include consideration of the Guiding Principles along with the Goals outlined in the previous sections.

The following steps are recommended for guiding implementation of this Framework:

1. Carry out a public engagement on this draft Environmental Policy Framework (likely at the Inform level).
2. Present a final draft Environmental Policy Framework to Council (this could be presented together with the Biodiversity Conservation Strategy) for endorsement.
3. Orient staff District-wide to the Framework's Guiding Principles and goals including how to use them to guide new policy and program development. This would include an environmental policy gap analysis to identify new policies, bylaws and strategies required to fulfil the key environmental strategies.
4. Consider applying the Environmental Policy Framework in the upcoming update of the [Climate Plan: Renewable and Resilient Saanich](#).
5. Encourage and support public actions that relate to the primary pillars of the EPF (Climate Plan, Biodiversity Conservation Strategy and enhanced stewardship program).
6. Resource priority actions on public lands that relate to the primary pillars of the EPF.

### 4.1. Policy Gap Analysis

The Environmental Policy Framework will assist in coordinating municipal policies focused on protecting Saanich's natural environment. An environmental policy gap analysis as identified in Goal 3 is a first step. A gap analysis would:

- ♦ Identify existing environmental policies.

- ◆ Identify those aspects of Saanich’s natural environment not currently addressed by policy that would benefit from a policy.
- ◆ Identify policies (bylaws, strategies, etc.) that contradict the EPF.

An initial gap analysis was carried out by staff in 2020. The RSTC has provided a revised methodology in Appendix C. Both the staff gap analysis and the Policy Evaluation Tool, or other approaches, could be used to analyze policies and programs. Policy Evaluation Tool

The Resilient Saanich Technical Committee developed a Policy Evaluation Tool to provide staff with a suggested method to evaluate new and existing policies or programs to determine how closely they fulfil the intent of the Framework’s Guiding Principles.

In response to staff review, the initial Policy Evaluation Tool was revised from a matrix approach to a set of questions that can be used by staff to guide their policy and program development. Both options are provided in Appendix D.

## 4.2. Public Actions for a Sustainable and Resilient Saanich

Actions by residents (and non-residents) of Saanich influence the ability to achieve a more Sustainable and Resilient Saanich. The District plays a role in educating residents in ways to protect and enhance the natural environment at home and in the community.

Saanich has a long history in environmental leadership with key guiding documents such as the Official Community Plan, the 2010 Urban Forest Strategy, Invasive Species Strategy, and longstanding programs such as the Pulling Together Volunteer Program, Native Plant Salvage Program to name a few.

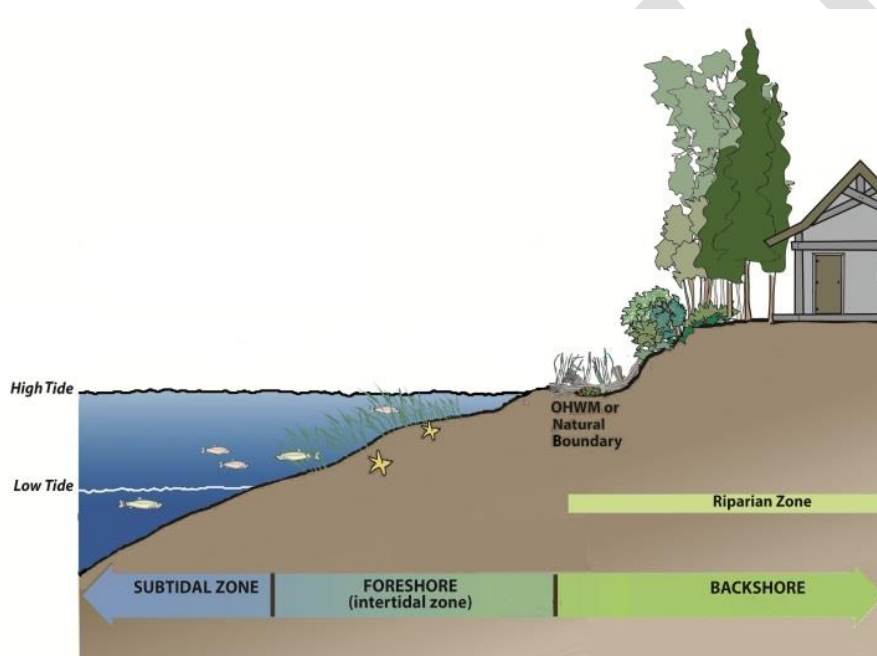
This Framework seeks to build on Saanich’s environmental leadership through the implementation of the Climate Plan, the Biodiversity Conservation Strategy and an enhanced stewardship program along with future policies and programs that focus on the natural environment.

## 5. Appendices

(Note that the appendices are a “work in progress” and are incomplete at this time.)

### A. Glossary

**Backshore** - the upper zone of a beach (or land above the OHWM) beyond the reach of normal waves and tides, landward of the beach face. The backshore is subject to periodic flooding by storms and extreme tides, and is often the site of dunes and back-barrier wetlands (Figure 1) (Greenshores)



**Figure 1**

**Biodiversity**: a term used to describe the variety and variability of life on Earth. Biodiversity encompasses all living species and their relationships to each other. This includes the differences in genes, species and ecosystems. (State of Biodiversity Report, March 2023)

**Biodiversity Conservation Strategy** - a plan to enhance and protect the variety of native species and ecosystems in a given geographical area. (Saanich RSTC Fact Sheet #2)

**Blue list** - List of ecological communities, native species and subspecies in B.C. that are of special concern (formerly vulnerable). (BC Conservation Data Centre)

**Ecosystem** - A dynamic complex of plant, animal, and microorganism communities, climatic factors and physiography, all influenced by natural disturbance events and interacting as a functional unit, and subject to large scale and localized small scale processes. Ecosystems vary enormously in size: a temporary pond in a tree hollow and an ocean basin are both ecosystems. (BC Conservation Data Centre)

**Ecological Community** - This term is used by the B.C. Conservation Data Centre and the NatureServe network. In B.C. it incorporates plant associations from the Vegetation Classification of the [Biogeoclimatic Ecosystem Classification](#), and other natural plant communities including both forested and non-forested ecosystems. (BC Conservation Data Centre)

**Ecological Connectivity** - the unimpeded movement of species and the flow of natural processes that sustain life on Earth. (Convention on the Conservation of Migratory Species of Wild Animals)

**Ecological function** - the natural processes, products or services that living and non-living environments provide or perform within or between species, ecosystems and landscapes

**Ecological Integrity** - A measure of the current ecological condition (structure, composition, and function) of an ecosystem as compared to reference ecosystems operating within the bounds of natural or historic ecological processes and disturbance regimes ([Faber-Langendoen, et al 2012](#), [Rocchio and Crawford 2011](#)) (BC Conservation Data Centre)

**Environmentally Significant Areas** - natural areas that have been captured in environmental inventories due to their ecological values and special features. (District of Saanich)

**Ecosystem Valuation** - a process to make better-informed decisions by explicitly valuing both ecosystem degradation and the benefits provided by ecosystem services. By including ecosystem values, the company's aim is to improve corporate performance in relation to social and environmental goals and the financial bottom-line. (IUCN, 2011) (similar to natural capital valuation, natural asset valuation. Ecosystem accounting, etc.) (see def'n for [Natural Assets Valuation](#))

**Endangered** - Facing imminent extirpation or extinction. (BC Conservation Data Centre)



**Eutrophication:**

Eutrophication is the process of nutrient enrichment of a body of water usually resulting from anthropogenic activities (e.g. agricultural runoff, sewage discharges, etc.).

Source: BC Ministry of Water, Land & Air Protection. 'Summary of Surface Water Quality Sampling on Sumas River'. 2004.

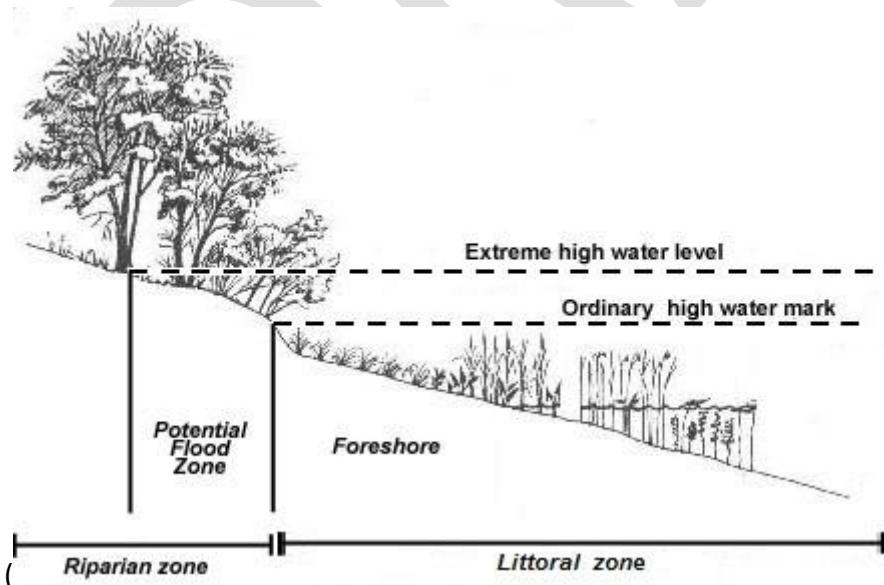
**Eutrophication:**

The process of increasing the nutrients, primarily nitrate and phosphate, content of natural waters, usually resulting in an increase in biomass and productivity of algae which may result in the depletion of oxygen concentration in the water leading to a fish kill, from natural erosion and runoff from the land or other anthropogenic sources.

Source: BC Ministry of Water, Land & Air Protection. 'Glossary of Water Quality Terms'. Web – [www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality](http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality)

**Extirpated** - Species and ecosystems that no longer exist in the wild in British Columbia, but may, or do, occur elsewhere. (BC Conservation Data Centre)

**Foreshore** - the area between high tide (or OHWM) and low tide water levels in marine systems (see Figure 1 on page 1), or between seasonal high water and low water levels on lakes (Figure 2-DFO). (Stewardship Centre for BC)



**Gap analysis - A set of techniques to examine and describe the gap between current performance and desired future goals. The comparison of actual performance with potential or desired performance; that is the current state and the desired future state. (Project Management Institute)**

**Goal** - A goal sets the direction and destination to achieving the vision. A goal guides decision-making. (RSTC Worksheet)

**Green infrastructure** – (Green Infrastructure Ontario) A broad category that includes natural assets and designed and engineered elements that have been created to mimic natural functions and processes in the service of human interests (District of Saanich, State of Urban Forest Report, 2023)

**Imperviousness:**

The property of a material through which water will not flow under ordinary hydro-static pressure.

Source: Site Engineering for Landscape Architects 2<sup>nd</sup> ed., Strom and Nathan.

Pub. By Van Nostrand Reinhold 1993.

**Impervious Surface Area (ISA):**

The area of a given lot or property that is covered by man-made structures such as rooftops, roads, sidewalks, driveways and parking lots that are covered by impenetrable materials such as shingles, asphalt, concrete, plastic, brick and stone. The ISA is often referred to as the built footprint.

Source: Green Shores for Homes, Washington and British Columbia. December 2015.

Pub, by the City of Seattle Department of Planning and Development (in collaboration with the Stewardship Centre for BC)

**Impervious Surfaces:**

Any human-made graded, hardened surface covered with materials comprised of asphalt, concrete, masonry, or combinations thereof. Draft OCP 2023

**Indigenous knowledge** - a set of complex knowledge systems based on the worldviews of Indigenous peoples. Indigenous knowledge reflects the unique cultures, languages, governance systems and histories of Indigenous peoples from a particular location. Indigenous knowledge is dynamic and evolves over time. It builds on the experiences of earlier generations and adapts to present conditions. First Nations, Inuit and Métis each have a distinct way of describing their knowledge. Knowledge-holders are the only people who can truly define Indigenous knowledge for their communities. (Indigenous Knowledge Policy Framework Initiative, Government of Canada)

**Intertidal** - In marine systems, the area between high tide and low tide levels (Figure 1). (Stewardship Centre for BC)

**Landscape** - A landscape is part of the Earth's surface that can be viewed at one time from one place. It consists of the geographic features that mark, or are characteristic of, a particular area. (National Geographic Society)

**Natural assets (or municipal natural assets)** – The stocks of natural resources or ecosystems that contribute to the provision of one or more services required for the health, well-being and long-term sustainability of a community and its residents. (District of Saanich Asset Management Policy)

**Natural asset valuation:** natural asset management values natural assets for the *services* they provide (Municipal Natural Assets Institute)

**Natural boundary** - the visible high water mark of any lake, river, stream or other body of water where the presence and action of the water is so common and usual, and so long continued in all ordinary years as to mark on the soil of the bed of the body of water a character distinct from that of its the banks in vegetation, as well as in the nature of the soil itself. (Land Act, Province of BC)

**Natural Boundary** - A physical boundary is a natural barrier between two areas. Rivers, mountain ranges, oceans, and deserts are examples (National Geographic Society).

**Natural capital** can be defined as the world's stocks of natural assets which include geology, soil, air, water and all living things. It is from this natural capital that humans derive a wide range of services, often called **ecosystem services**, which make human life possible. (World Forum on natural Capital)

**Novel ecosystems** - a system of abiotic, biotic, and social components (and their interactions) that, by virtue of human influence, differs from those that prevailed historically, having a

tendency to self-organize and manifest novel qualities without intensive human management. (Hobbs et.al.)

**Objective** –specific steps taken to achieve the goal. A SMART Objective is Specific Measureable Attainable Realistic Time-bound (RSTC Worksheet)

**Plant Community** - A recurring plant community with a characteristic range in species composition, specific diagnostic species, and a defined range in environmental requirements (site and soil characteristics, hydrology, localized climate, etc.), and physical appearance or structure. (BC Conservation Data Centre)

**Policy framework** - a formal statement that provides context and broad guidance with respect to policy themes or clusters. Also provides the supporting structure within which specific Treasury Board policies and other instruments can be understood in strategic terms. (Treasury Board glossary, Government of Canada)

**Policy framework** - a logical structure that is established to organize **policy** documentation into groupings and categories. It provides a set of principles and long-term goals that form the basis of making rules and guidelines, and to give overall direction to planning and development of the organization (IGI Global website).

**Policy tools** - approaches and techniques based on science and other knowledge systems, including indigenous and local knowledge, that can inform, assist and enhance relevant decisions, policy-making and implementation at the local, national, regional and international levels to protect nature, thereby promoting nature's contributions to people and a good quality of life. (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services)

**Principle** - a moral rule or a strong belief that influences your actions (Canadian Oxford Dictionary)

**Red list** - List of ecological communities, native species and subspecies in B.C. that are at the greatest risk of being lost. (BC Conservation Data Centre)

**Rehabilitation** - Rehabilitation acknowledges that vegetation will be permanently altered, but seeks to return a self-sustaining native plant community that is as close to the original as possible. (Society for Ecological Restoration International Science and Policy Working Group, 2004).

**Remediation** - Remediation is the process of stopping or reducing pollution that is threatening the health of people or wildlife (National Oceanic and Atmospheric Administration, US Dept. of Commerce, 2021)

**Restoration** - Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. Restoration attempts to return vegetation to its original state. (Society for Ecological Restoration International Primer on Ecological Restoration 2004).

**Riparian Zone** - Riparian areas occur next to the banks of streams, lakes, and wetlands and include both the area dominated by continuous high moisture content and the adjacent upland vegetation that exerts an influence on it. (Forest Practices Code, Province of BC)

**Riparian areas** - areas are the areas bordering on streams, lakes, and wetlands that link water to land. The blend of streambed, water, trees, shrubs and grasses directly influences and provides fish habitat. (Province of BC Riparian Areas Regulation Brochure 2016)

**Sensitive Ecosystem** – a portion of a landscape with relatively uniform dominant vegetation which is considered fragile and/or rare. (Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993 – 1997, Volume 1: Methodology, Ecological Descriptions and Results)

**Species at risk** - An extirpated, endangered or threatened species or a species of special concern (formerly called vulnerable). (BC Conservation Data Centre)

**Stewardship** - taking responsibility to promote, monitor, conserve and restore ecosystems for current and future generations of all species. There are three types of environmental stewards: doers help out by taking action on the ground; donors help by donating money, land or other resources; and practitioners work to steer agencies, scientists, stakeholder groups or other groups toward a stewardship outcome. (Stewardship Centre for BC)

**Strategy** - a plan of actions to achieve the objectives. (RSTC worksheet)

**Threatened** - Likely to become endangered if limiting factors are not reversed. (BC Conservation Data Centre)

**Urban Forest** - Saanich's urban forest is the sum total of all trees and their associated ecosystems within the municipality. It is the entire collection of trees growing in parks and private lands, on commercial and institutional lands, along highways, roads, trails and paths, as well as throughout open spaces in the community. The urban forest is a critical component of the functional green infrastructure system in Saanich, within both the Urban Containment Boundary and in Rural Saanich. The urban forest is more than just individual trees, it also includes a series of intact and fragmented ecosystems. (Saanich Urban Forest Strategy)

**Wetland** - Areas where soils are water-saturated for a sufficient length of time such that excess water and resulting low soil oxygen levels are principal determinants of vegetation and soil development. (Mackenzie and Moran 2004)

**Yellow List** - List of ecological communities and native species in B.C. that are at the least risk of being lost. (BC Conservation Data Centre)

[RSTC-Glossary Dec 06 2021 Rev'd.docx](#)

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## B. Resilient Saanich Technical Committee

Members

## C. Gap Analysis

Information to be added

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## D. Policy Evaluation Tool

A means of evaluating new policies or programs is recommended to determine how closely they fulfil the intent of the Guiding Principles and achievement of Goal 2. The Evaluation Tool not only helps with the process of policy/program/strategy/incentive development but can also be used to demonstrate how various policies work in coordination to support the Environment Policy Framework and Resilient Saanich overall.

The Resilient Saanich Technical Committee has suggested two approaches:

1. A simple approach is to use the set of guiding questions related to the Principles as outlined below
2. An alternative approach is to use the proposed criteria in the table to determine if a policy has a high, medium, or low relevance to each principle. A neutral category is added for policies or programs that have no relevance to a principle, and there is a category for evaluating if a policy or program might work against a principle. The final evaluation of a policy or program would be to weigh the determinations for all the principles to draw a conclusion about how close, overall, a policy or program comes to fulfilling the intent of the principles and achievement of Goal 2.

### Option 1: Guiding Questions

The set of questions below can be used to serve as a thought or process tool to help develop policies, programs, regulations, strategies and incentives. Meeting the Guiding Principles will promote the goals of the Environmental Policy Framework and environmental sustainability in the face of challenges such as climate change and habitat modification. The Evaluation Tool could also be used post-hoc on existing policies, programs, regulations, strategies, and incentives to ensure that they work in a coordinated way to achieve the goals of the Environmental Policy Framework.

*1. Recognize the intrinsic value of nature.*

This is an ethical commitment to recognize and respect the right to exist of other life forms and the ecological processes that support us all.

Does the policy actively promote, protect and enhance biodiversity conservation and the sustaining abiotic and biotic processes (nature)?

- 2. Build relationships and undertake appropriate actions of reconciliation with indigenous groups and First Nations. For example, action the ATOL, NEUEL Memorandum of Understanding with the WSÁNEĆ Leadership Council.*



Have relevant Nations and indigenous groups been involved in policy development (redevelopment)?

- 3. Use evidence-based decision making; take precautions and use a continuous improvement approach when supporting science is absent or insufficient.*

Has a literature review and/or assessment of similar policies in other jurisdictions been conducted (if developing new policy)?

Has previous policy been evaluated (if updating existing policy) for effectiveness and/or challenges?

Has the capacity for monitoring and continuous improvement been built into the policy?

Are areas of uncertainty identified? Are precautions in place?

- 4. Lead by example through innovation and improving on best practices for management of human activities in relation to the natural environment.*

Is policy development coordinated between all departments?

Are best practices identified and committed to?

Is there a clear commitment to continuous improvement?

- 5. Look beyond Saanich's borders to achieve results at a bioregional scale.*

Has the policy been discussed with or borrowed from relevant neighbouring jurisdictions?

If relevant, does the policy have a positive impact on resilience at a bioregional scale?

- 6. Identify and highlight co-benefits of addressing climate adaptation and mitigation.*

Does the policy meet or exceed actions identified in the Climate Plan?

- 7. Collaborate with diverse interests and backgrounds to develop more durable, fair, and effective environmental policies and programs.*

Is public engagement relevant? And if so, at what level of IAPP?

Is the policy development relevant to using a diversity and inclusion lens as per Saanich's Diversity and Inclusion Plan?

8. *Ensure open, accurate environmental information to encourage an informed citizenry that participates in building policies and programs for a more resilient Saanich.*

Does the policy provide for improved environmental information? Can it be made public?

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## Option 2: Evaluation Matrix

### Evaluation Matrix to promote adoption of Environmental Policy Framework principles

As part of the Resilient Saanich Program, Council requested a policy and program evaluation matrix for reviewing new and existing programs and policies against Goal 2 of the Environmental Policy Framework (EPF)

**Goal 2. Develop and implement complimentary and coordinated policies, strategies, regulations, and incentives grounded in and consistent with the Environmental Policy Framework guiding principles.**

This overarching goal is essential to promote the culture of environmental stewardship and resilience within Saanich staff and the public. The principles will assist in evaluating existing policy and provide guidance for the development of future policy.

Some of the actions that could result from this goal are:

- Assess existing regulatory, management and administrative tools to identify gaps and inconsistencies.
- Develop a strategic approach that encourages effective use of limited resources.

Increase community understanding of policies, plans, programs, bylaws, and partnerships encompassed by the Resilient Saanich Environmental Policy Framework.

The Evaluation Matrix below is designed to serve as a thought or process tool to help development of policies, programs, regulations, strategies, and incentives that adhere to the principles articulated in the Environmental Policy Framework. Adhering to the principles will promote the goals of the Environmental Policy Framework and environmental sustainability in the face of challenges such as climate change and habitat modification. The Evaluation Matrix can also be used post-hoc on existing policies,

programs, regulations, strategies, and incentives to ensure that they work in a coordinated way to achieve the goals of the Environmental Policy Framework.

The RSTC suggests two possible approaches to evaluation of adherence to each principle and the one chosen will depend on the nature of the policy or program. A qualitative approach is to use the proposed criteria in the table to determine if a policy has a high, medium, or low adherence to each principle. A more numerical approach is the use of a scoring scale for adding numerical scores to the criteria in the table for each principle. For example, a high score would be equivalent to three points, a medium to two points etc. A neutral category is added for policies or programs that have no relevance to a principle, which may be scored as NA or a numerical score of zero. There is also a category for evaluating if a policy or program works against a principle which would be assessed as “negative” or be given a negative numerical score.

The final evaluation of a policy or program would be to weigh the determinations for all the principles and to assess how close, overall, a policy or program comes to fulfilling the intent of the principles and achievement of Goal 2. A numerical approach may be useful when comparing policy or program alternatives. Policies and programs that score high could be submitted to council for adoption, with documentation from the Evaluation Matrix to demonstrate support for the goals of the Environmental Policy Framework and ultimately to a Resilient Saanich. The Evaluation Matrix not only helps with the process of policy/program/strategy/incentive development but also demonstrates to the public how the various policies work in coordination to support the Environment Policy Framework and Resilient Saanich overall. Policies and program initiatives that score in the mid-low range can be re-examined to see where they can be enhanced before adoption.

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
1	<b>Recognize the intrinsic value of nature</b>	Actively promotes, protects and enhances biodiversity conservation and the sustaining abiotic and biotic processes (nature) by awarding recognition and incentives.	Indirectly supports biodiversity conservation with strong mitigation measures	Implements some mitigation or offset measures	Neither promotes nor negates biodiversity	Actively leads to loss of habitat and biodiversity
2	<i>Apply the ÁTOL, NEUEL ("Respecting One Another") memorandum of understanding: respect and consider</i>	Relevant nations involved in policy development from start to finish	Relevant nations engaged and support in principle	Relevant nations contacted but active support unclear/not clearly articulated	No engagement	One or more nations actively against this policy

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
	<i>Indigenous knowledge, worldviews and perspectives in environmental decisions and actions</i>					
3	<i>Use evidence-based decision making; adopt the precautionary approach when the supporting science is</i>	To score at this level policy should meet all <u>relevant</u> criteria below.  1. If it is a new policy, a literature review and effectiveness assessment of similar policies in other jurisdictions has been	To score at this level, policy meets at least criteria 1 <u>and</u> 2 and either criteria 3 or 4 in the high category.	To score at this level, policy meets criteria 1 <u>and</u> 2 in the high category but not criteria 3 or 4.	To score at this level, policy meets either 1 or 2	The policy does not review past policies, published literature, nor does it apply the precautionary principle or available evidence. The policy may pose risks to environmental values in the pursuit of achieving other values.

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
	<i>absent or incomplete.</i> <sup>4</sup>	<p>completed. If updating existing policy, previous policy effectiveness has been assessed and challenges identified prior to policy redevelopment. (This is considered gathering evidence or baseline data to support policy development.)</p> <p>2. The goals that the policy is intended to achieve are clearly articulated, and qualitative or</p>				

<sup>4</sup> Evidence-based decision-making and being precautionary in the absence of evidence can both support good decisions. Adaptive management is the continuous evolution of practices based on careful observation. Learn from the past and plan for the future.

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
		<p>quantitative metrics and timelines are identified to enable effectiveness assessment.</p> <p>3. Capacity for monitoring and adaptively modifying policy built into the policy.</p> <p>4. Areas where baseline data or outcomes are uncertain are clearly articulated in the policy, and the application of the "Precautionary Principle" is made transparent for public review.</p>				



No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, “Policy” is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
4	<p><i>District of Saanich leads by example through innovation and improving on best practices;</i></p>	<p>Council leads or sets the example for Saanich. The outcomes that are to be achieved are clear.</p> <p>Timelines are clear.</p> <p>Staff fully engaged in developing innovative policy proposals.</p> <p>Promotes full interdepartmental coordinated action to achieve outcomes.</p>	<p>Council indicates it wants to lead, but does not.</p> <p>Outcomes clear but timelines are vague, or vice versa; best practices vague.</p> <p>Staff only partially engaged in developing innovations.</p> <p>Departments and staff only partially coordinate.</p>	<p>Council has an opportunity to lead, but does not.</p> <p>Outcomes and timelines vague.</p> <p>Best practices not specified.</p> <p>Staff not engaged in developing innovations.</p> <p>Poor interdepartmental coordination.</p> <p>Limited commitment to continuous improvement.</p>	<p>Council fails to lead.</p> <p>No outcomes or timelines.</p> <p>Best practices not specified.</p> <p>No staff engagement or interdepartmental coordination.</p> <p>No commitment to continuous improvement.</p> <p>Not an innovation if it’s done routinely.</p>	<p>Not learning from and repeating past mistakes.</p>

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
		<p>Specific best practices are listed and committed to.</p> <p>Clear commitment to continuous improvement</p> <p>First time for this Policy or program.</p>	Policy or program has been done a few times before.	Policy or program has been done frequently.		
5	<i>Look beyond Saanich's borders to achieve results at a bioregional scale.</i> <sup>5</sup>	Policy has been discussed with neighbouring jurisdictions and has positive effect and impact <sup>6</sup> , or policy is adapted	Policy may have an impact on other local jurisdiction and at a bioregional scale.	Policy may have impact on local jurisdictions but not at bioregional scale.	Policy has no relation to what adjacent jurisdiction are doing	Policy works against the direction other jurisdictions are going, or negates improvement on a bioregional scale

<sup>5</sup> Essentially, southern Vancouver Island and Gulf Islands.

<sup>6</sup> Neighbouring jurisdictions means local governments that share a border with Saanich, or the CRD

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
	<p>from other jurisdictions.</p> <p>Policy has positive impact on resilience at bioregional scale.</p>					
6	<i>Address climate adaptation and mitigation in all that we do.</i>	Meets or exceeds full implementation of provisions of Saanich Climate Plan	Partly addresses adaptation and mitigation in Saanich Climate Plan	Addresses mitigation but not adaptation or vice versa.	Does not address the provisions of the Saanich Climate Plan	Will result in a net increase in GHG emissions
7	<i>Collaborate with diverse interests and backgrounds to</i>	Policy developed in collaboration with relevant community	Consultation and collaboration has taken place with most of the	Consultation and collaboration has taken place with only a few groups	Policy was developed without external consultation or collaboration and no	Policy was developed with values and benefits in conflict with, or ignoring all, input

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
	<i>develop more durable, fair and effective environmental policies and program</i>	organizations, ENGOS, developers, service clubs, advisory committees, school districts, health authorities and special interest groups, etc. and policy outcome is welcoming to people of diverse backgrounds.	appropriate and relevant groups and people of diverse backgrounds affected by the policy.	or special interests and some of the outcomes are welcoming to people of diverse backgrounds.	particular effort was made to be welcoming to people of diverse backgrounds.	provided at the consultation stages  OR  Policy was developed solely with special interest groups directly affected by said policy  No effort was made to ensure the outcomes were welcoming to people of diverse backgrounds.
8	<i>Ensure open, accurate</i>		Policy includes sporadic	Public input not consistently	Policy developed by Saanich staff and	Policy developed by Saanich staff and

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
	<p><i>environmental information to encourage an informed citizenry that participates in building policies and programs for a more resilient Saanich</i></p> <p>This principle has two aspects: Aspect 1) making environmental and policy development information</p>	<p>To score on Aspect 1:</p> <p>1. Accurate (vetted and assured by experts) baseline environmental data and information on criteria 1, 2 and 3 of Principle 3 above are clearly and openly communicated to the public in public forums and/or through online resources.</p> <p>2. Data gaps and uncertainty is clearly articulated so that criteria 4 of Principle 3 above can be applied.</p>	<p>outreach, education and some dedicated staff support. The outreach may be only targeted to some segments of the community and not towards harder to reach groups within the community (e.g., just online engagement or resources).</p>	<p>sought, recorded or incorporated. No dedicated staff resources.</p>	<p>approved by Council without public participation, but some outreach during the implementation phase.</p>	<p>approved by Council without public participation, but no resources for communication at any phase of the project.</p>

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
	<p>(data, maps etc.) available to the public to create an informed citizenry and Aspect 2) soliciting information back from this informed citizenry to inform and improve policy.</p> <p>To score "high" all criteria on both Aspect 1 and 2 need to be met.</p>	<p>To score on Aspect 2:</p> <p>3. If relevant, input from the community is solicited, documented, and transparently incorporated into policy and if not incorporated, documentation is available on reasons why.</p> <p>4. Policy includes provisions for dedicated staff and ongoing outreach, education during the</p>				

No .	Principle from EPF	Scoring Matrix for policies, strategies, regulations, and incentives. For brevity, "Policy" is used to denote all the initiatives in the table below				
		High (3)	Medium (2)	Low (1)	Neutral (0)	Opposes (negative 1 to 3)
	implementation phase.					

DRAFT

Compilation of issues and concerns regarding Ecosystem Mapping Layers Provided on the Saanich Map GIS system - July 21, 2023

I have put together the following information based on my field investigations and analysis, as well as other individual's comments and reports regarding the following ecosystem map layers that are provided on the Saanich Map GIS system – Sensitive Ecosystem Inventory (SEI), Coastal Douglas-fir Terrestrial Ecosystem Mapping (CDF TEM) and Saanich Ecosystem Mapping (SEM). Many of these properties and areas provided below do not meet the scientific criteria of the sensitive ecosystem inventory standard or TEM standards. Many of these properties do not have natural ecosystems, or fragments thereof, and many have either been mapped incorrectly or have never been viewed and verified by the original mappers to confirm the occurrence of a natural ecosystem or fragment and whether they fit the ecosystem map unit that is indicated on the map layers. Over 125 properties and areas are indicated in these lists.

Very little field verification by qualified ecologists has been done for any of these inventories on private properties. Many other natural or near natural ecosystems, and ecosystem fragments, occur within Saanich Parks and have not been mapped or delineated as Sensitive Ecosystems or ecosystems at risk on the Saanich Map system. I have included an analysis I have done in the past, of all Saanich Parks and the unmapped Sensitive Ecosystems and fragments thereof that occur within over 100 of these parks.

Most of these areas indicated below are within Saanich's Urban Containment Boundary (UCB). I have viewed multiple natural ecosystems and ecosystem fragments on private properties in rural areas of Saanich. Most areas, however, are unknown as to whether the mapping is correct within rural Saanich.

This ecosystem mapping should be updated or replaced by new TEM/SEI mapping as proposed by the RSTC in their March 29, 2022 meeting approving a motion for new TEM/SEI mapping within the UCB and for Saanich Parks:

<https://www.saanich.ca/assets/Local~Government/Documents/Committees~and~Boards/RSTC/Minutes/2022~Minutes/2022-03-29-RSTC%20Minutes.pdf>

Also see:

<https://www.saanich.ca/assets/Local~Government/Documents/Committees~and~Boards/RSTC/Agendas/SEI%20mapping%20in%20Saanich%20Oct%202021.pdf>

<https://www.saanich.ca/assets/Local~Government/Documents/Committees~and~Boards/RSTC/Agendas/2022~Agendas/Briefing%20Note%20Mapping%20WG.pdf>

Properties that no longer support natural ecosystems or sensitive ecosystems

A) SEI and TEM mapping

Properties that I provided reports to Saanich Staff and Council during the EDPA process that allowed landowners to submit a request to Council to have them removed.



The following properties were removed from the EDPA Atlas by Council or staff. These same properties have been returned to the TEM mapping indicating that they are natural ecosystems or sensitive ecosystems when they are not. The consultants that did the Coastal Douglas-fir TEM mapping originally used the SEI mapping for areas with Garry oak and related ecosystems, without verifying them on the ground. These same maps, the Coastal Douglas-fir TEM and the SEI maps, were used by Diamond Head Consulting for the State of Biodiversity report.

Alberg Lane

4007/4011 Rainbow Street

4037, 4035, 4039, 4041, 4043 Braefoot Road

4351 Gordon Head Road

4131, 4151, 4171 Glendenning Road

1519, 1521 Cedarglen Road

2768, 2770, 2776, 2780, 2786, 2796, 2810 Sea View Road

2785, 2801, 2811, 2821, 2825, 2831 Tudor Road

Reports were submitted to Saanich between 2017 and 2020 20xx for the following properties but the SEI was never removed from the ESA Atlas (I can provide reports, but they should be in Saanich files).

The reports show that none of the properties below support Sensitive Ecosystems, therefore they should be removed from the Saanich GIS mapping.

820 McKenzie Ave

3871 High St.

1555, 1559, 1563, 1565, 1567, 1569, 1571 Brodick Cres

4048 Hopesmore Drive

1586 Feltham Road

1558, 1560, 1568, 1570 Orleton Pl.

4038 Cedar Hill Road

4451 Shore Way

4343, 4355 Gordon Head Road

4003 Birring Place 1446 Simon Road (part of the report for Braefoot Road and Malton Avenue indicating no properties met the Sensitive Ecosystem level – see Stewart Guy and Brian Wilkes report below.

2936 Mt. Baker View Road – ask Jon Sector – he did a report there – lots more of these Coastal Bluff (CB) Sensitive Ecosystems are in poor ecological condition – maybe all. No longer Sensitive Ecosystems.

Matt Fairbarns 2015 quote about Coastal Bluff Sensitive Ecosystems - *“I believe that the site is most likely to be taken over by invasive species in the absence of management to prevent such an outcome. That is my best opinion as a biologist with considerable experience watching such ecosystems. I would hasten to add, however, that the same could be said of virtually every coastal bluff community in Saanich.”*

SEI Properties that I or other professionals have written reports for that indicated that these are not sensitive ecosystems – these should be removed from mapping. but still occur on maps – no Sensitive Ecosystem

Some of these reports have not been submitted but could be provided if Saanich does not have copies.

St. Andrews High School 4040 Nelthorpe Street

1241/1249 Maywood Road (covered in ivy – also has a covenant) (report by SWELL consulting following a different standard) – however, there is no sensitive ecosystem present.

4169, 4171 Lynnfield Cres.

4012 Malton Avenue

4050 Nelthorpe Street – also see Matt Fairbarns report indicating poor ecological condition.

4009 TO 4011 Rainbow Hill Lane (report provided for this development indicated no rare or sensitive ecosystems – Adolf Ceska and Susan Blundell)

923 Woodhall Drive

4368 Wilkinson Road

978-A, 978-B Milner Avenue (SWELL Report – 90% of herb layer is bluebells)

1000 Beckwith Avenue – Aqua-Tex report

4368, 4360, 4362 Lochside Drive – Aqua-Tex report

SEI Mapped Properties that I have viewed on the ground that are not Sensitive Ecosystems that should be removed from the ecosystem maps – see following list.

Most of these areas are not Sensitive Ecosystems and should be removed. Mostly lawn or ornamental plants.

Rogers Court – 825, 829,

Rogers Way – 783, 785, 787, 791, 795, 797, 801, 805, 809, 813, 817, 821 (SEI and TEM)

(Partial removal of some of these has occurred – still fully mapped as a TEM Douglas-fir – Onion grass plant community of young forest). No natural vegetation.

Map 10 – Rhododendron gardens in Playfair Park – large area not removed – mapped as Sensitive Ecosystem.

Map 11 Wetherby Park – Cedar Hill Road – lawn area – does not meet the SEI standard. Could remain on map if there is a plan to restore this park.

Properties that RSTC members (Stewart Guy and Brian Wilkes) visited that do not have Sensitive Ecosystems – SEI mapping – should be removed from the Saanich GIS system.

See page 9 -

<https://www.saanich.ca/assets/Local~Government/Documents/Committees~and~Boards/RSTC/Agendas/2021-12-16-full-agenda.pdf>

1. Wilkinson Rd at Loenholm Rd. Mapped as WD, or woodland, but is mostly shrubs including red-osier and rose. Some of the property is fenced and cannot be accessed. From what we saw, it is in fair condition.
2. Rogers Court lots 825, 828, 829. Mapped as WD. Or woodland, but in those lots it is lawn and garden under trees. No sensitive ecosystem.
3. 4040 Nelthorpe St. at Lakeview. Mapped as WD, or woodland. Nice grove of Garry oak but completely overwhelmed by invasive blackberry, ivy, daphne. No sensitive ecosystem.
4. Milner Rd 978B. Mapped as WD, or woodland. Cleared of shrubs, ground cover blackberry and agronomic grasses, some garden escapes. No sensitive ecosystem. Not a woodland.
5. Lynnfield Cres 4169. Mapped as WD, woodland. Lot has been stripped of shrub layer; only blackberry, ivy, and agronomic grasses on ground. Not a sensitive ecosystem. Not a woodland.
6. Payton Place 1430. Mapped as WD. Open field with several trees. Filled with thistle, queen Anne's lace, agronomic grasses and other invasives. Not a sensitive ecosystem
7. Malton Ave, near 4084. Mapped as WD, woodland. Dominated by ivy and blackberry. Not a

sensitive ecosystem

8. Simon Rd, behind 1446, viewed from Birring PL. Mapped as WD, woodland. Open area of agronomic grasses under trees. Not a sensitive ecosystem.

- B) Saanich Ecosystem Mapping (SEM) maps, mapped as ‘sensitive ecosystems’ according to criteria provided in the Moraia Grau and Associates reports and mapping but which were never vetted by QEPs and never approved by Saanich Council. See <https://www.saanich.ca/EN/main/community/natural-environment/environmental-planning/saanich-ecosystem-mapping.html>

The SEM maps were created to meet the following: *“The overall objective of the Saanich initiative is to identify and map remaining environmentally significant areas, including smaller sensitive, rare and endangered ecosystems, species at risk (SAR) sites, as well as buffers and linkages between these areas.”* See Page 1 of:

<https://www.saanich.ca/assets/Community/Documents/ESA%20Mapping%20Phase%201%20Report.pdf>

The sites and properties provided below by a variety of professionals do not meet the *“sensitive, rare and endangered ecosystem”* category.

Properties viewed by RSTC member (Brian Wilkes) that are on Saanich Map GIS, that are not Sensitive Ecosystems and should be removed.

<https://www.saanich.ca/assets/Local~Government/Documents/Committees~and~Boards/RSTC/Agendas/2021-02-16-rstf-full-agenda.pdf> See page 41 to 43

Map 7 – Camosun College – large area of lawn under oak trees, native plant garden is covered in invasive and agronomic grasses.

Map 10 – Kathleen Street-Rock Street - lawn, garden, invasives.

Map 17 – Zinnia Court – ROW mapped as Woodland, but covered in invasive species – ivy, blackberry; (this one could be kept because it is public land which could be restored)

Map 17 Lavender Avenue, Montcalm Street – mapped as Woodland when they are lawn, garden, roadway, pathways, invasives and a few native species under oak trees.

Map 19 – San Marino – front yards –lawn and garden under oak trees – a few native species; Cumberland Street – dominated by invasive species.

Map 26 – 4140 Quadra Street is lawn and garden under oak trees, etc. (I have viewed this one on the ground as well)

4140 Quadra Street – also TEM – (I have viewed on the ground as well) – lawn and gardens.

SEM Properties that I have viewed that are not Sensitive Ecosystems and should be removed from Saanich Map.

Alberg Lane southwest side of property – this was not a sensitive ecosystem before the development – report by two biologists for Alberg property.

4195 to 4221 Glendenning Road – lawn and gardens in backyards.

Oakwinds Street, Oakdale Place – dense invasive species covering much of this unit.

Wende Road, Athlone Drive – private back yards, lawn, invasives, horticultural species

Persimmon Close – private back yards, lawns, etc.

Map 20 – McKenzie Avenue at Cedar Hill Road – mostly invasive species under oak trees – including the Covenant area.

Much of this Saanich Ecosystem mapping on Map 20 are private back yards with gardens, invasives and few native species.

Map 26 – Lily Avenue Property mapped as Wetland – it is not a wetland.

Jefferson Street/Feltham Road – oak trees in back yards – look at older orthophotos on Saanich GIS can see the lawn and garden in these back yards.

Most SEM mapping within the UCB is tree canopy with non-native understory – in my opinion only public land areas should be kept in this mapping within the UCB. Possibly keep rural areas but these need to be assessed on the ground to confirm that Sensitive Ecosystems or other Environmentally Significant Areas exist.

Preliminary Analysis of the Coastal Douglas-fir Terrestrial Ecosystem Map (TEM) and Saanich Parks.

The Coastal Douglas-fir TEM was mapped by Madrone Environmental Services Consultants and released in 2007. **No field verification was undertaken on private lands within the District of Saanich for this mapping.**

It is difficult to tell exactly what is mapped for each polygon – it appears from Saanich Map GIS that only one of the three possible plant communities that can be mapped in TEM has been displayed in the data in the legend on the left. If this further information was provided, individuals could do more of an analysis of what is mapped within each polygon for Saanich Parks and other areas.

Many parks, as shown on the Saanich Map GIS system have no mapping at all or there are big gaps in coverage. For example, there is a large gap for much of Mount Douglas Park (at least as displayed), and for Francis King CRD Park and Mt. Work CRD Park, – parts of these parks are missing on Saanich GIS. Many smaller parks have no mapping but do have natural or semi natural ecosystems that should be mapped as natural assets for Saanich.

There is no accurate ecosystem inventory of all the parks and public areas within Saanich, that I am aware of.

Ecological condition for all ecosystems is needed to be able to determine restoration requirements, particularly for Garry oak ecosystems, Terrestrial Herbaceous and Coastal Bluff ecosystems, and for forested ecosystems where invasive shrubs dominate, or other degradation has occurred – this is not provided in any mapping to date.

Over ten Saanich Parks have Trembling Aspen Woodland Sensitive Ecosystems. It appears that not one of these are mapped by the Coastal Douglas-fir TEM or by the new Saanich Ecosystem Mapping (SEM) as Aspen Woodlands. Trembling Aspen communities are provincially listed ecosystems at risk, much rarer than Garry oak ecosystems.

Just a few examples below (There are others):

Most of the TEM Woodland and other areas within the built environment just mirror the polygons that were used in the SEI mapping – many of which also have not been field verified.

The TEM mapping is incorrect in many places, below are some examples.

<b>Saanich Park</b>	<b>What is here?</b>	<b>What is mapped by Coastal Douglas-fir TEM?</b>
Phyllis Park – viewpoint area	Garry oak Woodland; Terrestrial Herbaceous Sensitive Ecosystem	FdPI – Arbutus – mapped polygon to south of this area meets this description, and seems mapped correctly
South Valley Park	Trembling Aspen Woodland; Garry oak Woodland; Riparian Shrub	Fd – Oniongrass – Young Forest
Feltham Park – east side	Garry oak Woodland	Fd - Salal
Feltham Park – west side	Garry oak Woodland; Riparian young forest; Cottonwood Riparian	CwBg - Foamflower
Bow Park	Garry oak Woodland; Trembling Aspen Woodland; Riparian Shrub around pond	Fd - Salal

Mount Tolmie Park – southeastern polygon	Garry oak woodland	FdPI - Arbutus
Cedar Hill Golf Course – oval-shaped polygon northwest of Clubhouse	Garry oak woodland	FdPI - Arbutus
Top of Mount Doug Park	Garry oak woodland	FdPI - Arbutus
Cuthbert Holmes Park north side	Nootka Rose - Pacific Crab Apple	Early successional states – probably was Garry oak before it was farm then shrub – not an estuarine community
Playfair Park, Mount Tolmie, Mount Douglas, Christmas Hill Park	The Conservation Data Centre describes a red-listed plant community <i>Quercus garryana</i> / <i>Bromus carinatus</i> (Garry oak / California brome) plant community, which is more appropriate for these areas.	Garry Oak - Brome/mixed grasses (

List of known problems on private land with the Coastal Douglas-fir TEM mapping

Properties that have errors in the TEM mapping which occur within the Urban Containment Boundary (UCB) are provided below.

Many of the rural properties are unknown because no one has done field verification on most of these areas, except in CRD Parks. This should be completed, with landowner cooperation.

Location	Mapped as in Coastal Douglas-fir TEM	Should be mapped as
Queenswood Drive area	01 Douglas-fir – Salal - large unit	Mostly 02 site series – Douglas-fir – Arbutus and people’s lawn and ornamentals; some shallow soil Garry oak areas as well
4225 Blenkinsop Road (4239 Blenkinsop Road seems correct)	This property is mapped as 01 Douglas-fir – Salal	Eastern portion of Mount Douglas golf course has a deep soil Garry oak – oceanspray site association. Much of Madrona Farms is

		mapped as this unit – the cultivated field areas should be separated from the forested and woodland areas.
4317 Blenkinsop Road	01 Douglas-fir – Salal	Area north of Madrona Farms is all Garry oak – not 01 site series – large unit – some of it may be correct
Alberg Lane, 1521 to 1511 Cedarglen Road; 4151 to 4195 Glendenning Road	01 Douglas-fir – Salal	Started mostly as Garry oak unit – little 01 if any – much is now lawns and houses and was originally a farm on Alberg Lane when mapped by Madrone consultants.
Little Saanich Mountain – steep south and southwestern facing portion below Cladina - Wallace's selaginella map unit	01 Douglas-fir – salal unit mapped	This is more likely 02 or 03 unit – steep warm aspect, shallow soil unit
Map 19 Nicholson Street and Lane; Licorice Lane	Mapped as Woodland	Most of the area is houses, roads, and non-vegetated areas – appears to be a corridor but is not; - what year were the air photos that was used for this mapping?

Saanich Parks that have sensitive ecosystems that are not mapped as supporting natural or near natural sensitive ecosystems or are mapped incorrectly – see long list that I put together – of the 171 parks over 100 parks have unmapped sensitive ecosystem fragments.

My table of these unmapped sensitive ecosystems in Saanich Parks is attached.

I will be willing to discuss any of these issues with Saanich staff or the RSTC.

Respectfully submitted,  
 Ted Lea,  
 Vegetation Ecologist