

AGENDA
ENVIRONMENT AND NATURAL AREAS ADVISORY COMMITTEE SPECIAL MEETING
Tuesday, July 2, 2019, 6:00– 8:00 PM
Committee Room 2, Municipal Hall

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1. **ADOPTION OF MINUTES** (attachment)
 - Adoption of May 15, 2019 minutes

2. **CHAIR'S REMARKS**

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3. **ENVIRONMENTAL POLICY FRAMEWORK DISCUSSION** (attachment)
 - Committee discussion of Environmental Policy Framework – Proposed Work Plan Report.

* Adjournment *

* * Next Meeting: September 18, 2019 * *

Please email jeff.keays@saanich.ca or call at 475-1775 ext. 3430 if you are not able to attend.

**GO GREEN! MEMBERS ARE ENCOURAGED TO
BRING THEIR OWN MUG TO THE MEETING**

MINUTES
ENVIRONMENTAL AND NATURAL AREAS ADVISORY COMMITTEE
Held at Saanich Municipal Hall, Committee Room #2
May 22, 2019 at 6:03 p.m.

Present: Chair: Councillor Rebecca Mersereau

Members: Alfred Birch, Kevin Brown, Al-Nashir Charania, George Klima, Ryan Senechal and Carmel Thomson and Emily Truman.

Staff: Adriane Pollard, Manager Environmental Services, Lesley Hatch, Manager of Underground Services, and Jeff Keays, Committee Clerk

Regrets: Kyle Empringham

MINUTES

MOVED by A. Charania and Seconded by E. Truman “That the minutes of the Environmental and Natural Areas Advisory Committee meeting held April 17, 2019, be adopted as amended.”

CARRIED

CHAIR’S REMARKS

UPDATE: EV CHARGING STATION - ENGAGEMENT RESULTS

The Senior Sustainability Planner provided the committee with an update on engagement efforts and the recommended approach for the Electric Vehicle Charging in New Developments. The following highlights are noted:

- Council adopted the September 21, 2017 Motion from PTED at the January 8, 2018 meeting of Council.
- In 2017 Council adopted new long-term targets for renewable energy (100% by 2050) and GHG emissions (80% reduction by 2050 over 2007 levels).
- March 25, 2019 Council declared a climate emergency.
- Provincial Zero Emissions Vehicle (ZEV) Mandate
 - Supply side policy.
 - ZEV mandate bans sale of new internal combustion engines by 2040 (for passenger vehicles and light duty trucks)
- Personal transportation accounts for 58% of Saanich’s GHG emissions.
- A 90% uptake of EVs for personal transportation can help Saanich achieve a 17% decrease in GHGs, coupled with the electrification of 50% of the commercial fleet (totaling a 3.5% reduction) results in ¼ of Saanich’s target.
- Local governments have an important role in facilitating access to charging (home and on the go)
- A recap of the Phase 1 – which utilized surveys and workshops both for the public and development industry in order to provide info on EV perceptions – identified the following key findings:
 - 27% of people living in multi-family residences said access to a charging station

- was their largest barrier to market entry.
- Legal, social and cost barriers are making retrofits extremely challenging for Saanich residents living in Condos
- Prioritizing EV adoption for climate action (top priority for 41% of survey respondents)
- Developing an EV-Ready requirement for new construction (supported by 92% of respondents)
- The local development industry has experience with installing EV infrastructure in recent development (63% of respondents)
- Cited cost as a major barrier (44% of respondents)
- Thought demand for EVs would be moderate to high in the next five years (50%) or 10 years (76%)
- supported EV-ready regulations in the Capital Region (68% of respondents)
- The proposed approach was informed by feedback from Phase 1 of the EV industry engagement, and a review of municipal (BC) best practices.
- Options were evaluated using the following evaluation criteria:
 - Minimized upfront cost for developers
 - Simple for the strata or property owner to administer
 - Climate action and “future-proofed” buildings and transportation system
- The minimum standards for institutional, commercial and industrial also considered the following:
 - Estimated proportion of stalls used by employees parking on site
 - Expected dwell-time for public users
 - Estimated proportion of users that would be driving long distances (>75km) to that location
- Key Considerations:

EV Energy Management Systems	Cost of Infrastructure	Affordability
<ul style="list-style-type: none"> • Electric Vehicle Energy Management Systems (EVEMS) enable power to be shared/prioritized between chargers. • EVEMS tech. facilitating the installation of Level 2 chargers in multi-fam. developments. • Reduces electrical capacity requirements and associated development costs as compared to dedicated circuits • Up to performance of L2 charging • Manages peak load; reducing utility costs • Can facilitate billing • Local Govts. can specify min. performance standards, ensuring adequate charging 	<ul style="list-style-type: none"> • City of Richmond Costing Study - Energy Management Systems provided the best performance for least cost. • Level 2 chargers and allowed up to 4 chargers per circuit provided the best performance at the lowest cost. • Saanich’s townhouses and mid-rise archetypes are similar to study, costs of electrical infrastructure is comparable. • Costs are likely to be less in Saanich, given lower daily driving distances and lower performance standard (6-way, Saanich vs. 4-way sharing in Richmond). 	<ul style="list-style-type: none"> • Many EVs are already more affordable - largely due to declining battery costs - than their gas counterparts when accounting for operational costs have continued to drop • According to the latest Bloomberg New Energy Finance Forecast (2019), the purchase price of EVs will be similar to gas models by 2022. • A BC Hydro Report <i>Unplugged: Myths block road to the electric car dream</i> identifies that the Chevy Volt (\$3,299) is \$999 less than the Chevrolet Spark (\$4,298) in ownership costs over the first five years of ownership

- Proposed Approach: Residential
 - Enable all new residential development to be equipped with electrical infrastructure that facilitates easy and cost-effective access to electric vehicle charging at home.
 - Single-Family, Duplex and Townhouse: Require 1 on-site parking space per unit to be energized (Level 2). *Will not be triggered by the addition of a garden or secondary suite.
 - Require all off-street parking spaces in multi-family developments to be energized (Level 2), excluding visitor parking. A minimum performance standard must be achieved where an EVEMS is employed.
- Proposed Approach: Institutional, Commercial, and Industrial (ICI):
 - Increase available public and workplace charging for EV owners on the go or without access to charging at home.
 - Proposed approach is to modify off-street parking requirements table (Section 7 of Saanich Zoning bylaw) with 3 additional columns to tailor requirement to specific land use needs:
 - a) Minimum energized spaces (expressed as % or whole number)
 - b) Of the energized spaces, number of EVSE (Stations) that must be installed
 - c) Minimum charging level indicates if load management is allowable (L2M)
- Phase 2 Engagement Key findings: Residential
 - General agreement for 100% energized outlets using EVEMS to reduce cost.
 - EVEMS is unfamiliar, concern costs would be higher than projected.
 - Social housing providers concerned about impact on housing costs; however, others felt that *not* providing EV charging in social housing will exacerbate inequities in the future.
 - Incentives should be considered for social housing.
 - Secondary and garden suites should not be exempted given use as short term/vacation rentals and protection of access for renters.
 - A reduction in overall parking requirements would assist developers in achieving the EV requirement.
- Phase 2 Engagement Key findings: ICI
 - General agreement and support with requirement, and the approach of having different standards per building type
 - The 5% requirement may be too low, feedback on specific land uses that could be higher (e.g. retail, workplace, vacation destinations, etc.) should be sought.
 - Some suggested a balance of Level 1 and Level 2 be considered
- The proposed start/implementation date is January 1, 2020
 - Overall support for this date for single family/townhouses.
 - Some respondents felt start date should be phased in more slowly to support capacity building and pre-planning for larger development.
 - Saanich/CRD should assist with industry-wide education.
 - Consistency across CRD is important.
 - Ensure mechanism in place to have users pay for electricity use.
- Upon the completion of Phase 2 engagement the following amendments are being considered:
 - Offer a bridging mechanism for Social Housing to access funding through the Affordability Fund (CACs) on an as-needed, case by case basis.
 - Include secondary and garden suites.
 - Push back start date for a) all building types or b) multi-family building types to

June 1, 2020.

- Allow those developments with development permits prior to January 1, 2020 to be exempted for a set grace period (e.g. 1 year).
- Increase the minimum energized or minimum stations installed for some ICI uses (will still not exceed 5% in any land use).
- Next Steps:
 - Follow up conversations with Technical Safety BC, BC Hydro, BC Housing, and other key stakeholders on technical, process, or training questions that were raised
 - Finalize amendments to proposed EV-Ready requirement.
 - Bring recommended approach to Council for consideration and adoption by Q3 this year.

Committee discussion ensued, the following was noted:

- Garden and secondary suites have been recommended for exclusion to due in part to the desire to maintain relative affordability, and associated matters arising from layout and site orientation.
- The infrastructure will be maintained by the owner.
- Bylaws could be considered to ensure the maintenance of public charging stations.
- Considering the long-term cost implications for electricity, insurance, taxes etc., will there be an uptake on the part of both residents and the development industry.
- EVEMS will result in savings in the short-term, when compared to gas powered vehicles, these savings will outweigh the potential cost increase of installation.
- A full retrofit of a building is cheaper than incremental retrofits.
- A Gender Based Analysis tool could be utilized to maximize impact.

MOTION

MOVED by C. Thompson and Seconded by R. Senechal, “That of the Environmental and Natural Areas Advisory Committee receive the Electric Vehicle Charging in New Developments: Update on engagement and recommended approach.”

CARRIED

THE MISSING MILLIONS: BC’S BEVERAGE CONTAINER LEGACY

The Chair introduced Katherine Metz of the Bottle Depot, who provided the committee with an overview of the Ocean Legacy Foundation’s (OLF) 2019 report, British Columbia’s Beverage Container Legacy: The Missing Millions. The following was highlighted:

- From the Bottle Depot, and acting as advocates for the OLF’s report.
- 8 million tonnes of plastic is deposited into our oceans and waterways globally.
- 43% of this is single-use, disposable plastics such as beverage containers, caps and straws.
- The amount of plastics in the ocean is expected to double by 2035.
- Neither voluntary action nor market forces are addressing the crisis.
- Concerted leadership efforts are needed to reduce beverage container litter.
- British Columbia was the first jurisdiction in the world to adopt a regulated beverage container deposit refund system; this regulated approach has been adopted in all the leading jurisdictions around the world.

- Despite BC's efforts over one million beverage containers go "missing" in BC every day.
- 387,000,000 containers went missing in 2017.
- ENCORP is non-profit organization which manages the recycling of beverage containers and electronic devices in British Columbia.
- ENCORP has 172 locations operating across the province.
- ENCORP's regulated target for returns is 75%. In 2017 the rate was just 75.8%
- BC's regulated beverage container deposit refund system is 50 years old now.
- There have been no significant updates to the system in 15 years.
- The current deposit rate of \$0.05 is 50 years old.
- Call to Action – Five recommendations for consideration
 1. Raise regulated deposits to a level that incents people to recycle their beverage containers
 2. Expand the system to include all types of beverage containers
 3. Require products to collect and report on beverage container caps
 4. Raise regulated collection targets
 5. Enforce regulated targets in meaningful ways
- An examination of other jurisdictions currently employing higher deposit and return target, indicated that they are achieving higher return rates.
- Among Canadian jurisdictions (operating in similar regulatory environments), both Alberta and Saskatchewan, both of whom have set \$0.10 as the deposit rate, are seeing a much higher return of over 80%.
- Jurisdictions in Europe have an average deposit rate of approximately \$0.30, with recovery rates routinely reaching over 90 %
- Germany has achieved a 98% recovery rate, their deposit rate is \$0.37.
- There is tangible and demonstrable proof that higher deposits result in higher returns.
- It is important to ensure BC's regulated deposit refund rates are set at a level that make the returns worthwhile. .
- With respect to higher regulated targets, we are recommending targets similar to those in other Canadian jurisdictions.
- A focus on target compliance and enforcement is imperative that we want to meet our targets.
- Additional enforcement tools for missed programming targets by producers should be considered, and implemented.

Committee discussion ensued, the following was highlighted:

- It is evident that more education is needed.
- Recycling should be more convenient.
- It is estimated that the missing million result in \$50,000 in lost capital/capital flight each day. This money could be going back into BC's economy.
- The stats cited in the presentation are from Recycle BC.
- The dairy industry lobbied to have their vessels excluded from the deposit regulations, and as a result of these efforts, are classified as packaging.
- Bottles that are disposed of in curbside blue boxes contribute to the \$50,000 per day in lost capital/capital flight in BC.
- It is most likely that the majority of the missing millions are simply being disposed of in municipal garbage containers (street side, parks and facilities).
- It is possible that there is collective recycling fatigue, what can we do to mitigate this?
- The process of recycling should be made simpler for all users.
- Additional tools that could be considered to offset not only the environmental impacts, but also the health impacts related to the consumption of high-sugar beverages should

be consider in concert with any recommendations to the province.

MOTION

MOVED by R. Senechal and Seconded by K. Brown, “That of the Environmental and Natural Areas Advisory Committee recommend that Council:

- A. Endorse the recommendations as presented:**
 - 1. Raise regulated deposits to a level that incents people to recycle their beverage containers**
 - 2. Expand the system to include all types of beverage containers**
 - 3. Require products to collect and report on beverage container caps**
 - 4. Raise regulated collection targets**
 - 5. Enforce regulated targets in meaningful ways; and further,**

- B. Send correspondence to the Province requesting that they consider the recommendations, as well as an increase in public education opportunities for recycling.**

CARRIED

COMMITTEE ROUNDTABLE

An Environmental Policy Framework for Saanich:

The committee continued their discussion on the April 14, 2019 Environmental Policy Framework for Saanich presentation. The following was noted:

In response to a question from committee the Committee Clerk stated:

- A motion to receive is procedural in nature, there is no resulting direction or actions.
- Committee can make recommendations to Council for their consideration; however, advisory committees do not have authority to provide direction Council.

Committee discussion ensued, the following was noted:

- A resolution recommending that Council consider the six (6) identified next steps would be appropriate.
- The six (6) identified next steps are:
 - 1. Initiating the policy gap analysis
 - 2. Preparation of the website and background documents for the public
 - 3. Preparation of the contracts for the consultants
 - 4. Assembly of the Technical Advisory Team
 - 5. Initiating public engagement efforts to set objectives
 - 6. Increase stewardship opportunities
- The next steps will inform the future direction of the framework.
- If adopted by Council, the work associated to these steps would be undertaken over a six month period.

MOTION

Moved by C. Thompson and seconded by K. Brown, “That the Environment and Natural Areas Advisory Committee recommends that Council consider the six (6) next steps as identified in the April 14, 2019 Environmental Policy Framework for Saanich presentation.”

CARRIED

ADJOURNMENT

The meeting adjourned at 8:03 PM

NEXT MEETING

Next meeting is scheduled for June 19, 2019

Councillor Mersereau, Chair

I hereby certify these Minutes are accurate.

Committee Secretary



The Corporation of the District of Saanich

Report

To: Mayor and Council
From: Sharon Hvozdzanski, Director of Planning
Date: May 30, 2019
Subject: Environmental Policy Framework – Proposed Work Plan
File: 1030-30



RECOMMENDATION

That Council:

1. Endorse the subject Terms of Reference.
2. Direct staff to begin Milestone One including engaging an Advisory Team and consultant(s) per the Terms of Reference.
3. Allocate resources for a temporary staff position to manage the environmental database, mapping, and GIS production.
4. Direct staff to implement interim measures, as recommended in this report.

PURPOSE

The purpose of this report is to seek Council's direction on the development of an Environmental Policy Framework consisting of a Biodiversity Conservation Strategy, Climate Plan, and enhancements to Stewardship Programming, per its earlier motion.

Interim measure(s) to protect rare habitat while the work outlined in the subject Terms of Reference is undertaken, is/are also included within this report for Council's consideration.

While the focus of this report is on one option in response to Council's detailed motion, Council can obviously pursue alternative approaches to address the issue(s) at hand.

DISCUSSION

Background

On November 6, 2017, Council made the following 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 Biodiversity 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."

This motion was made in anticipation of the rescindment of the Environmental Development Permit Area which occurred on April 23, 2018. Further, on May 7, 2018, Council designated up to \$250,000 to fund decisions emanating from this report.

Guiding Principles

While this report proposes a process, it does not presuppose the outcomes. That said, there are several guiding principles that would inform the process outlined in this report, namely:

- Consultant(s) lead process, with staff as project manager;
- Meaningful public engagement;
- Guidance from scientists and other professionals, including a cross section of Saanich staff, is critical;
- Checking in with Advisory Committees and Council at major milestones to seek feedback and/or confirm direction(s);
- Lessons learned from Saanich's past experience and from other municipalities will be invaluable; and
- An adaptive, flexible process and Project Management techniques will be needed to ensure success.

Current Policy Framework

Saanich currently has a variety of policies, programs, plans, and regulatory tools to protect and enhance the natural environment. Some examples of very early policies are the Noxious Weeds Bylaw (1906), Urban Containment Boundary policy (1968), acquisition strategy for the Colquitz (1967), and outcomes from Healthy Saanich 2000 (1991).

These have developed over time without a comprehensive environmental policy framework, resulting in gaps and inconsistencies for biodiversity conservation. Meanwhile, new plans are underway such as the updates to the Local Area Plans and the Climate Plan: 100% Renewable & Resilient Saanich, also without the benefit of such a framework.

Adopted in 2008, the vision for Environmental Integrity from the Sustainable Saanich Official Community Plan (OCP) is:

“Saanich is a model steward working diligently to improve and balance the natural and built environments. Saanich restores and protects air, land, and water quality, the biodiversity of existing natural areas and eco-systems, the network of natural areas and open spaces, and urban forests. The challenges posed by climate change are responded to. “Centres” and “Villages” accommodate the majority of future growth, using green building practices.

Vibrant, distinct neighbourhoods provide a high quality of life for individuals and families. A variety of travel modes connect neighbourhoods and businesses, allowing for the effective, efficient, and safe movement of people, goods, and services. Walking, cycling, and transit are viable and popular travel options, resulting in less car dependence. Rural and farm land is protected by adherence to the Urban Containment Boundary.”

This vision, particularly the first paragraph, can be used as the foundation and guidance in moving forward with a comprehensive environmental policy framework.

PROPOSED ENVIRONMENTAL POLICY FRAMEWORK – “Natural Saanich”

A clear framework, using the vision for Environmental Integrity from the Sustainable Saanich Official Community Plan (OCP), would rationalize and complete the picture for the future of the natural environment in Saanich. The proposed framework outlined in this report has a working title of “Natural Saanich”, and is proposed to be a specific policy suite under the existing Sustainable Saanich OCP.

As directed by Council, the updated Climate Plan, the Biodiversity Conservation Strategy, and an enhanced Stewardship Program would create a policy framework for other Saanich environmental policies and programs. The framework would also consider options for a new Development Permit Area (informed by the Diamond Head report).

Policy framework examples from other municipalities include “Caring for Our Nature” (Maple Ridge) and a “Plan for Burnaby’s Green Future”.

The “Natural Saanich” Environmental Policy Framework, as described by Council in their motion of November 2017, would fit below the Official Community Plan (see Figure 1) and frame policies, procedures, bylaws, and programs which could be:

- **Existing** (ex. Urban Containment Boundary);
- **Enhanced** (ex. an updated Noxious Weeds Bylaw);
- **New** (ex. a Best Management Practice for protecting bird habitat); or
- **Linked** (ex. a recommendation for a policy under a different discipline like Agriculture).

The question mark in the Figure 2 on the following page represents the potential for other high-level strategic plans to populate the framework in the future.

“Natural Saanich” would also include recommended updates to existing bylaws, policies, and programs as well as new ones that are directly related to biodiversity. These recommendations would come about as a result of the gap analysis and outcomes of the Climate Action Plan and Biodiversity Conservation Plan. The Stewardship Program would also support the outcomes.

Scope

As illustrated in Figure 1, the Saanich OCP integrates the three pillars of sustainability: Environment, Social and Economy.

It is important to note that there are other aspects of a sustainable environment that are not the primary focus of the proposed “Natural Saanich” environmental policy framework. Transportation, recreation, health, business, etc. influence, or are influenced by, biodiversity. The proposed “Natural Saanich” framework would need to be integrated with these other areas and would likely result in some new policy recommendations and actions within these other disciplines.

It is recommended to Council that these areas would only be considered in direct relation to biodiversity and would otherwise be considered out of scope.

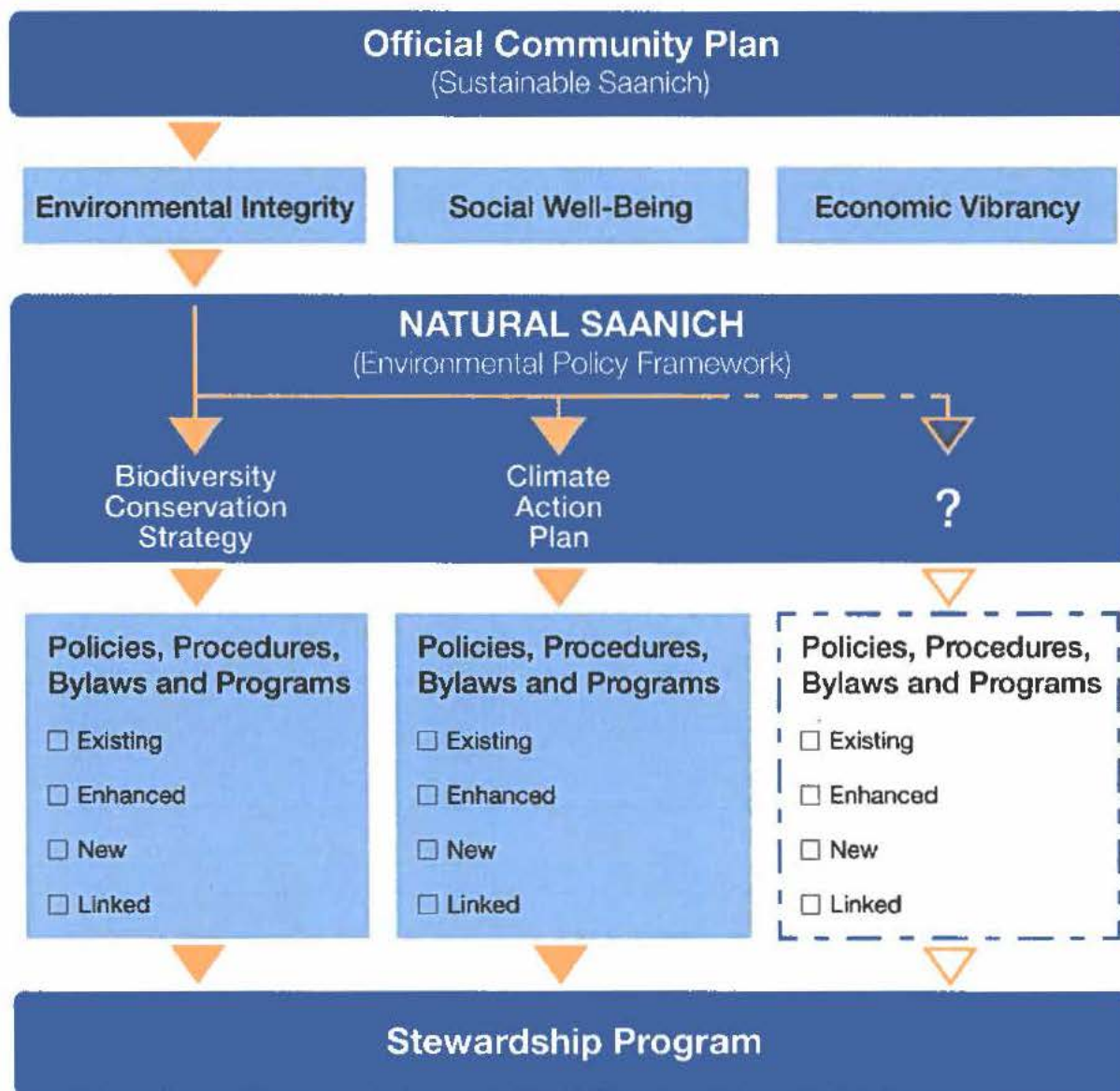


Figure 1: "Natural Saanich" Environmental Policy Framework Context

Elements

As directed by Council, there would be three main elements to "Natural Saanich": 1) the Climate Plan; 2) the Biodiversity Conservation Plan; and 3) a Stewardship Program. The three elements would need to be integrated and supportive of each other.

Element One: Climate Plan

The direct link between climate change and biodiversity has become more understood with recent research. Biodiversity is impacted by climate change, yet can also help make communities more resilient to its effects as well as mitigate the rate of change.

There are four key areas of interaction between biodiversity and climate mitigation or adaptation to be addressed in the Climate Plan:

- The value of biodiversity and local ecosystems in mitigating climate change;
- The contribution biodiversity and local ecosystems make to the resiliency of Saanich in adapting;
- The costs (environmental, social and financial) of ecosystem/ biodiversity destruction; and
- The impacts of climate changes on biodiversity and local ecosystems.

Council has already directed staff to create a new Climate Plan which will include both mitigation and adaptation measures, and work is well underway. Planning Department staff members are working to ensure that the Climate Plan and Biodiversity Conservation Strategy mesh well, in particular in regard to public engagement, proposed mitigation and adaptation measures, and time horizon.

Delivery of the Climate Plan to Council for final review and consideration is targeted for fall 2019. The completion of this document would be the first major achievement under the proposed "Natural Saanich" framework.

Element Two: Stewardship Program

Canada's Stewardship Agenda is a Federal/Provincial/Territorial initiative to develop a collaborative plan for a national vision and operating principles for stewardship. Canada's Stewardship Agenda uses the following definition of stewardship:

"...Canadians – including landowners and other individual citizens, private companies and volunteers – are caring for our land, air and water, and sustaining the natural processes on which life depends. Aboriginal communities share directly in stewardship and have unique experience in managing the land...Stewardship is also part of the broader voluntary effort in which Canadians share a commitment to improve the quality of life and to foster vibrant, healthy communities."

Stewardship can take many forms, such as: incentives and resources to supplement restoration; education and awareness to provide knowledge and tools for restoration; and opportunities and actions that help to inspire and facilitate positive change.

Figure 2 illustrates how the Stewardship Program would be part of the "Natural Saanich" environmental policy framework. The pyramid structure symbolizes the combination of what local government can do (for example, there are legal restrictions for financial incentives) with how to best effect change (such as providing opportunities for involvement). The examples listed are of existing programs and opportunities.

Saanich is fortunate to have numerous residents, institutions and businesses whom are invested in the natural environment through stewardship and volunteerism. The Saanich Parks "Pulling Together" Program has been instrumental in restoring areas in natural parks where invasive species have threatened ecosystem integrity. Outreach programs supporting private landowners to control invasive species and create habitat on their land have raised awareness and action, often beyond the capacity of staff resources to respond.

More can be done to support and actively assist landowners with major stewardship responsibilities and coordinate with public land priorities, such as free pick up/disposal of invasive species or free workshops on creating habitat. Increased stewardship opportunities can be achieved over the course of the "Natural Saanich" project. Once the "Natural Saanich"

policy framework is complete, a strategic review of new and enhanced stewardship opportunities would help to round out the program of existing stewardship programs.

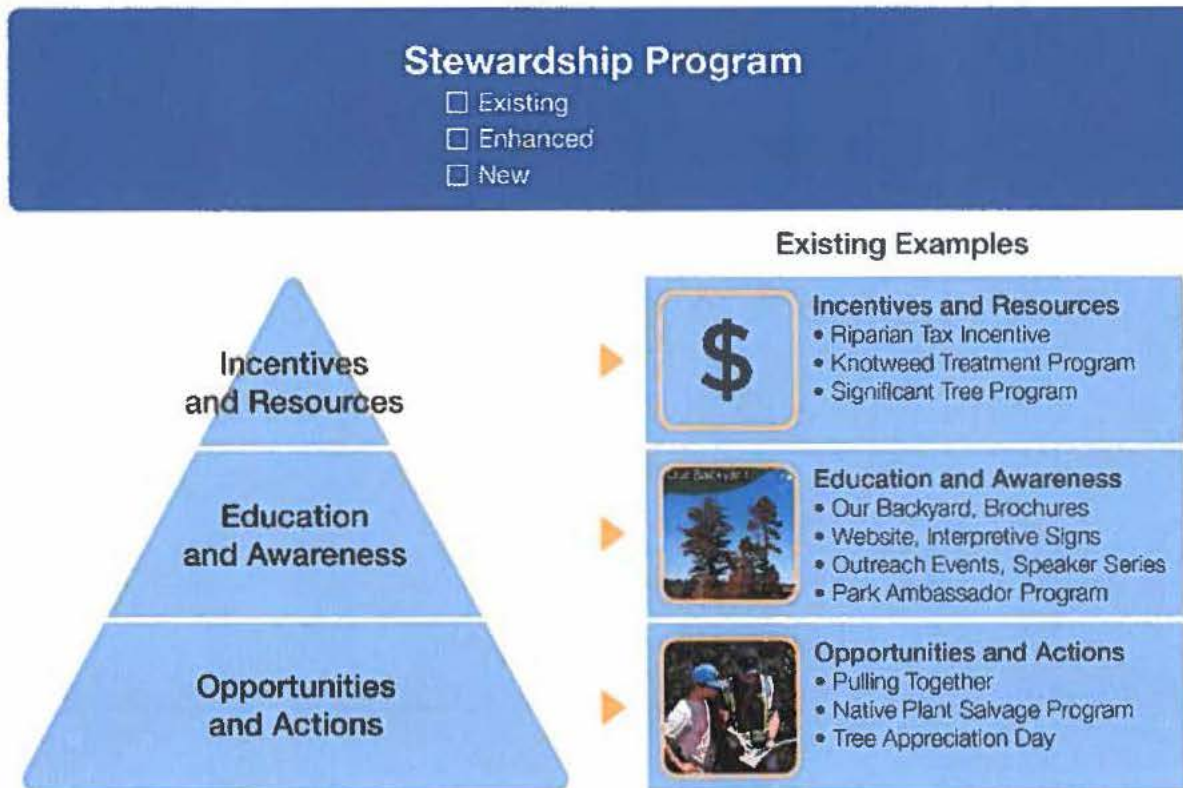


Figure 2: Stewardship Program Context

Element Three: Biodiversity Conservation Strategy

Within the proposed "Natural Saanich" Framework, the main new element to deliver is the Biodiversity Conservation Strategy which would be a significant policy document for Saanich. Based on the Official Community Plan, the vision for the Biodiversity Conservation Strategy is as follows: "Saanich restores and protects air, land, and water quality, the biodiversity of existing natural areas and eco-systems, the network of natural areas and open spaces, and urban forests."

The 1992 International Convention on Biological Diversity gives a formal definition of biodiversity: "Biological diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems". Basically, biodiversity is the presence and abundance of plants, animals, and ecosystems and their relationships to each other and the physical environment.

International and senior government commitments compel Saanich to examine how we are managing biodiversity within the regional context. Using the Provincial Conservation Framework and examples from other jurisdictions, Saanich's Biodiversity Conservation Strategy would describe the extent of stewardship, enhancement, and protection of natural areas needed for the future, particularly with regard to the impacts of development pressure, invasive species, and climate change. Topics to research may include methods to integrate Green Infrastructure

and Natural Asset Valuation into the framework and strategy, as well as incentives to property owners for conserving biodiversity.

Although there are not many municipal-level biodiversity conservation strategies to draw on, most jurisdictions take a phased approach by first producing an analysis of biodiversity followed by a strategy for conservation. For example, Surrey, the Okanogan, Comox Valley, Burnaby and Langley all began with a first phase of inventory and analysis of biodiversity before taking on a second phase strategy.

The phased approach is in-keeping with the biodiversity milestones established by ICLEI - Local Governments for Sustainability (ICLEI was formerly known as the International Council for Local Environmental Initiatives). The Milestone program, called BiodiverCity, is meant to be adapted to the needs of individual municipalities and has many useful tools to guide the conservation of urban biodiversity. Saanich previously completed the ICLEI Milestone program for Climate Protection.

Table 1: ICLEI's BiodiverCity Milestone Program

Milestone	Key Objective	Milestone Outputs
1: Initiate	Start the process of biodiversity planning by researching current actions, networks, and key internal and external stakeholders.	<ul style="list-style-type: none"> • Identify potential stakeholders • Build a biodiversity planning team • Identify existing actions, policies, networks and resources
2: Assess	Determine the current state of biodiversity within your community and projected changes that may impact local biodiversity.	<ul style="list-style-type: none"> • Identify key assessment attributes to inform biodiversity planning • Plan inventory and gap analysis • Develop statements on biodiversity changes and impacts to community
3: Plan	Plan for the successful integration of biodiversity goals, objectives, and actions into new and/or existing program areas.	<ul style="list-style-type: none"> • Identifying planning scope • Establish guiding principles • Establishing biodiversity goals and objectives • Setting biodiversity indicators, and targets • Identifying, prioritize, and select actions
4: Implement	Act on the goals of the biodiversity plan and consider messaging and outreach efforts throughout the implementation phase.	<ul style="list-style-type: none"> • Tailor communication to audience • Develop a message that is personal, local and timely
5: Monitor & Review	Establish protocols to collect and analyze biodiversity information and determine how to improve Biodiversity Action Plan actions.	<ul style="list-style-type: none"> • Collect data to measure performance/uptake • Circle back and upgrade key elements from the assessment and planning Milestones • Reporting to partners, stakeholders and Council

Using the BiodiverCity Milestones established by ICLEI, the first three Milestones would be delivered by this initiative. A proposed outline of steps to accomplish the policy framework, a Biodiversity Conservation Strategy, and an enhanced Stewardship Program for Saanich is presented in the attached Terms of Reference.

It is intended that the steps be adaptable over time as the process unfolds based on the results of the public participation process. As mentioned, the Climate Action Plan will proceed as previously directed by Council but will be coordinated and linked to the process proposed in this report. An internal project management charter will be created to fully prepare staff for the life of the project using corporate project management standards.

Table 2: Hi-lights of the Proposed Approach to Develop the “Natural Saanich” Framework

Milestone One: Initiate
<p>The purpose of Milestone One would be to gather information on what we already have in place that would fit into the new “Natural Saanich” framework. Staff would also gather information on established targets for conservation and examples of effective frameworks and strategies used by other jurisdictions. This information would be provided to the public as a lead up to a process to set objectives for the overall project.</p> <p>Setting the goals and objectives will involve a high level of public engagement and will create the foundation for the rest of the project. Objectives will be needed not just for the Biodiversity Conservation Strategy, but also the overall “Natural Saanich” framework, and the enhanced Stewardship Program. Participants will be asked about how they would like to be engaged in the overall process and what questions they would like to have answered.</p> <p>Milestone One would end with a progress report to Council.</p>
Milestone Two: Assess
<p>Milestone Two would build on the goals and objectives established in Milestone One. A Technical Advisory Team, comprised primarily of biological scientists (including staff), would lead the setting of standards, methodologies, data collection, and analysis needed to further the objectives. All existing data would be collated and analyzed in order to identify and fill gaps in knowledge.</p> <p>Consulting biologists would be hired to contribute in-depth data and lead a Citizen Science program to both expand the reach of data collection and engage residents in the process. Further information about the proposed Citizen Science program is in the public engagement section of this report. All of the information would be presented in a meaningful format to quantitatively and qualitatively describe the state of biodiversity knowledge in Saanich. This would form the basis for creating a strategy for conservation.</p> <p>In order to fulfil the objectives, additional studies may be needed such as natural asset valuation, a corridor study, etc. Consultants would need to be hired to deliver the research.</p> <p>Milestone Two would end with a progress report to Council.</p>

Milestone Three: Plan

Milestone Three would be led by a consultant and assisted by a renewed and expanded Technical Advisory Team made up of climate scientists, planners, stewardship consultants, biologists, staff, and community representatives. Using the information collected in Milestones One and Two, the Team would help to identify a conservation strategy with the community that would be suitable for Saanich.

Completion of "Natural Saanich"

Final steps to flesh out the "Natural Saanich" environmental policy framework would occur once the Biodiversity Conservation Strategy and Climate Plan are complete. A strategic review of stewardship opportunities would result in recommendations to round out the program of existing stewardship opportunities. New or enhanced policies and bylaws, or recommendations for those requiring further public process, would be included in the final report to Council. This includes options for a new environmental Development Permit Area.

Milestone Three would end with a progress report to Council.

Milestones Four and Five: Implement, Monitor & Review

Milestones Four and Five would commence after Council gives direction on Milestone Three, the proposed "Natural Saanich" Plan.

The Environmentally Significant Areas Atlas

As part of the Biodiversity Conservation Strategy, data collection and presentation would be communicated through mapping. Saanich's Environmentally Significant Areas (ESA) Atlas has been the key mapping product used to communicate environmental data since 1999. Saanich's public GIS platform allows the community to easily access the many layers of the Environmentally Significant Areas Atlas online.

The Environmentally Significant Areas Atlas is an information resource only and not associated with any bylaw. The first Environmentally Significant Areas Atlas was received by Council and subsequent editions have been produced by staff as a matter of keeping current.

With the anticipated start of the proposed citizen science program, the Environmentally Significant Areas Atlas would represent the baseline of current inventories to build upon. In order to present a complete picture, the 4th edition of the Environmentally Significant Areas Atlas would be released as soon as possible and would feature new mapping products such as the Coastal Douglas-fir (CDF) provincial mapping. It is anticipated that at the conclusion of the citizen science program, work would begin on producing the 5th edition of the Environmentally Significant Areas Atlas and related GIS layers.

Public Engagement

Public engagement will be critical to the success of the "Natural Saanich" Environmental Policy Framework. As Council is aware, Saanich's "Public Participation Policy" has a continuum of five levels of participation, as shown in Table 3, based on the International Association of Public Participation (IAP2). This project would include: Inform; Consult; Involve and Collaborate.

Table 3: IAP2 Spectrum of Public Participation

Inform	Consult	Involve	Collaborate	Empower
To provide balanced and objective information to support understanding by the public.	To obtain feedback on analysis, alternatives, issues and/or decisions.	To work with the public to ensure that concerns and aspirations are understood and considered.	To facilitate discussions and agreements between public parties to identify common ground for action and solutions.	To place final decision making in the hands of the public.

It is proposed that any member of the public would be able to sign up for an e-mail listserve to receive project updates, summary reports, and learn about opportunities to participate throughout the course of the project.

The first major opportunity for public input would be in the setting of goals and objectives for “Natural Saanich” and specifically the Biodiversity Conservation Strategy and enhanced stewardship opportunities. A variety of techniques would be used to collaborate on objective setting. Participants would also be asked how they would prefer to be engaged during the project life and what questions they would like to have answered.

Members of the public would also be able to participate in the citizen science program. Meaningful involvement of the community in the process to create the Biodiversity Conservation Strategy is key in fostering knowledge and understanding of the process and the results. Staff recommend the use of “citizen science” which would provide both data and opportunities for resident to participate in the process.

“Citizen science” is the use of volunteers, led by scientists, to collect data, monitor, and report on observations. “Citizen science” can be used to augment the work of scientists, such as “ground-truthing” of mapping, and create a pool of trained volunteers for long-term monitoring. The program would have many different roles and levels of involvement for participants. There are many knowledgeable residents and organizations within the community that can competently contribute. Similarly, there are many individuals who would like to take the opportunity to learn from others. Consulting biologists would lead the program to ensure the data would be useful to the overall study and the level of participation does not determine the success of the consultants’ progress.

There are current examples of “citizen science” programs locally that may help to provide data or inform a model for Saanich, such as: annual bird counts, Report-a-Weed, Colquitz River salmon inventories, and iNaturalist.

Once the data has been collected and analyzed, there would be opportunities for the public to attend symposiums, workshops, open houses, and complete surveys. Options for implementation (conservation tools) would be identified using public engagement collaboration. The Technical Advisory Team would assist with setting criteria to help assess options around factors such as costs, benefits, practicality, effectiveness, probability of success. Members of the public would also have the opportunity to give feedback when the consultant(s) and staff bring forward progress reports to Council.

The Technical Advisory Team would be made up of senior (Provincial/Federal) government officials, consultants, and members of the public with the necessary expertise to advise and guide the initiative and generally oversee the process of meeting the initiative objectives.

While consideration of a new Environmental Development Permit Area (EDPA) is included in Council's motion, if and how an Environmental Development Permit Area is to be used as a tool to achieve Council and the communities goals, will be determined through this planning process.

Roles and Responsibilities

Completing the "Natural Saanich" program of work would be a complex task involving roles and responsibilities for several consultants, the public, Council, the Technical Advisory Team and staff. Environmental Services (ES) staff would be the project manager ensuring work undertaken by a number of consultants is completed per the approved Terms of Reference. Environmental Services staff would also oversee public engagement opportunities and the internal staff analysis of the Environmental Policy Framework. Staff from a range of departments would participate as technical advisors, subject experts, and assist with contracting, mapping services, public engagement, etc.

Consultants would conduct research, work with citizen scientists, and produce scientific reports. Consultants would also conduct surveys, analyze data, and produce studies. Ultimately, consultants would produce the final Biodiversity Conservation Strategy and potentially subsequent policy work.

Figure 3 on the following page outlines the general roles and responsibilities over the three year timeline to complete all three Milestones and the "Natural Saanich" policy framework.

Time Line

It is anticipated that Saanich can complete the first three ICLIE Milestones within approximately three years which is in keeping with the time lines of other municipalities that have completed this kind of work.

This time is needed to ensure that the scientific data collection, mapping, and public participation can be completed to the expected standard. For example, the minimum of a full year is needed to collect environmental data on habitat.

Fortunately, Saanich already has a comprehensive Environmentally Sensitive Areas atlas as a foundation for further data collection and analysis.

Staff would use consultant services, temporarily add hours to part-time positions, prepare for each Milestone in advance, and use technology to help keep the initiative moving forward.

Figure 4 on the following page shows the process timeline in terms of the completion of major Milestones.

	Milestone 1: Initiate	Milestone 2: Assess	Milestone 3: Plan	Policy Framework Completion
Planning Staff	<ul style="list-style-type: none"> Project Management <ul style="list-style-type: none"> Project charter RFP's for consultants Call for advisory team members Policy gap Analysis Public Engagement Support <ul style="list-style-type: none"> Website Objective setting 	<ul style="list-style-type: none"> Facilitate and Support Technical Advisory Committee Contract Management Engage University and College for Potential Research Inform Public of Progress 	<ul style="list-style-type: none"> RFP for Biodiversity Conservation Plan Call for Expanded Technical Advisory Team Membership Engage Public on Stewardship Program Public Symposiums on Conservation Tools Oversee Survey Organize Pop-Up Events Technical Advisory Team 	<ul style="list-style-type: none"> Complete Framework Present to Council Revise ESA Atlas Final Open House
Interdepartmental Staff	<ul style="list-style-type: none"> Public Engagement Subject Matter Experts 	<ul style="list-style-type: none"> Technical Advisory Team 	<ul style="list-style-type: none"> Technical Advisory Team 	<ul style="list-style-type: none"> As Needed Assist With ESA Atlas Production
Technical Advisory Team		<ul style="list-style-type: none"> Provide Scientific Advice and Direction 	<ul style="list-style-type: none"> Provide Advice and Direction on Conservation, Climate Change, Ecosystem Sciences etc. 	
Consultants		<ul style="list-style-type: none"> Biological Studies Citizen Science Program Additional Studies 	<ul style="list-style-type: none"> Complete Draft Biodiversity Conservation Plan 	
Public	<ul style="list-style-type: none"> Set Objectives Read Summary Reports 	<ul style="list-style-type: none"> Technical Advisory Committee Participate in Citizen Science Program Provide Feedback on Preliminary Reports 	<ul style="list-style-type: none"> Technical Advisory Committee Complete Survey Attend Open Houses and Symposiums Provide Feedback 	<ul style="list-style-type: none"> Provide Feedback
Council	<ul style="list-style-type: none"> Receive Progress Report 	<ul style="list-style-type: none"> Receive Progress Report 	<ul style="list-style-type: none"> Receive Biodiversity Conservation Plan 	<ul style="list-style-type: none"> Receive Natural Saanich Conservation Plan

Figure 3: Roles and Responsibilities

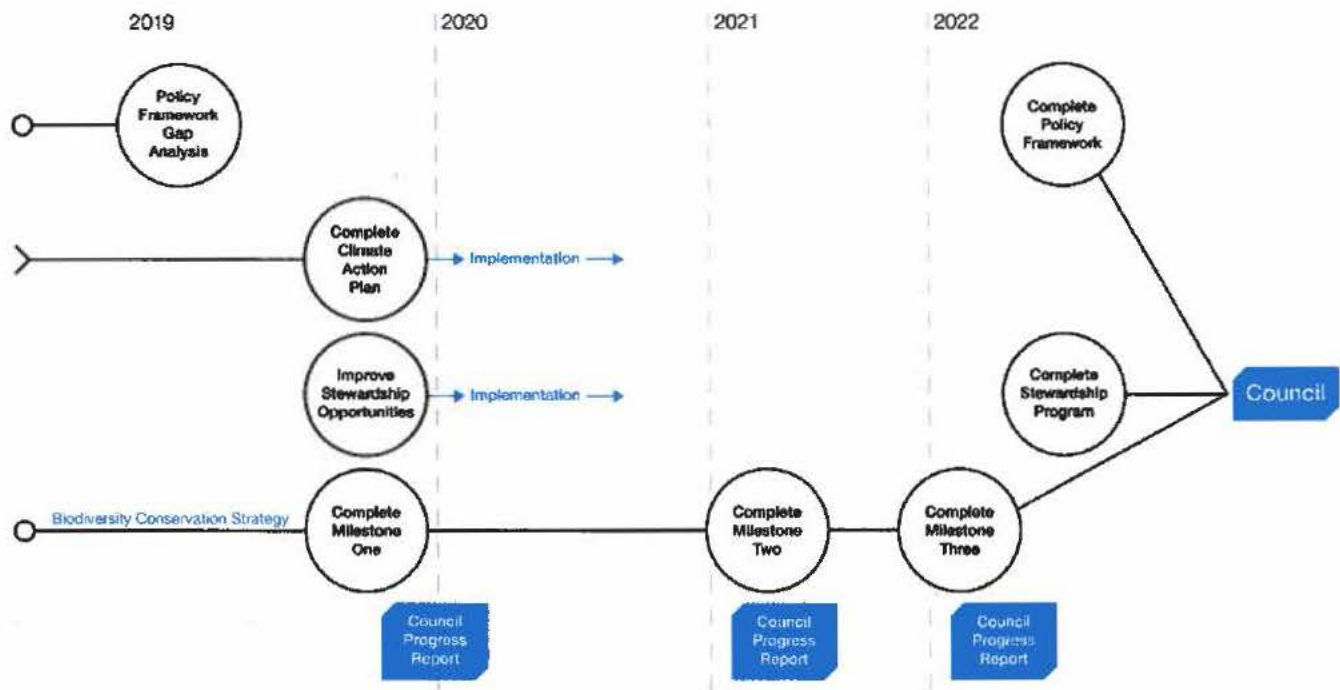


Figure 4: Timeline of Major Milestones

Interim Measure

Given the potential time frame for the “Natural Saanich” project and its full completion, Staff recommends that Council consider interim measures to protect the natural environment be implemented while the “Natural Saanich” program of work is underway.

There are a number of potential interim measures, each with its own level of public engagement and staff time to implement. Each measure has its own level of effectiveness based on when it would apply and how enforceable or binding it is.

Table 4 gives an overview of the effectiveness of the options with green being effective, yellow being potentially or conditionally effective, and red being ineffective. The three options inside the heavily lined box (Enhanced Fill Bylaw, Enhanced Tree Bylaw and Enhanced Development Application) are most suitable measures, as they could be implemented relatively simply and quickly.

Table 4: Options for Interim Measures to protect the natural environment

Interim Measure Options	Pre Development	Land Alteration	Building Permit	Subdivision	Rezoning
Development Permit Area (category a)	✓	✓	✓	✓	✓
Natural State Covenant	✓	✓	✓	✓	✓
Enhanced Zoning Bylaw	✓	✗	✓	✓	✓
Enhanced Fill Bylaw	✓	✓	✓	✓	✓
Enhanced Tree Bylaw	✓	✓	✓	✓	✓
Enhanced Development Application	✗	✗	✗	✓	✓
Enhanced Policies	✗	✗	✗	✓	✓

An enhanced Deposit of Fill Bylaw could regulate the use of fill in rare habitat areas which may also reduce land clearing in these areas. An enhanced Tree Bylaw could regulate tree removal in rare habitat areas with greater conservation goals. Finally, the following point could be added to the list of required information to accompany a rezoning or subdivision development application:

- A professional biologist report on the existing natural features of the property with recommendations for mitigation and enhancement, such as proposed Natural State Covenanting for rare or endangered ecosystems, habitat of rare or endangered species, and corridors linking to other natural areas.

The three recommended proposed interim measures increase the potential of specifically protecting rare and endangered ecosystems and species in the District while the “Natural Saanich” work is undertaken and completed. The other options offer additional assurances

regarding protection, but would require a more complex and time-consuming approach that is not recommended at this time.

To deliver the suite of three recommended interim measures, in-house staff resources would be needed in various departments to craft wording and procedures for legal review. This additional work would require Staff to temporarily reallocate other priorities to complete the work. None of the three interim measures require public engagement, beyond that accounted for as part of the required Council meetings to amend these bylaws. Should Council wish Staff to undertake additional public engagement, then further time and funding would be needed. Funding for this additional work would need to come from Councils Strategic Initiatives Contingency fund. The estimated amount to complete this public engagement would be \$5,000 - \$7,000. At this time Staff are not recommending that the additional public engagement implementation of these interim measures.

The "Local Government Act" allows local governments to establish development permit areas for the "(a) protection of the natural environment, its ecosystems and biological diversity".

Should Council desire a category "a" Development Permit Area immediately to protect rare and endangered ecosystems and species, staff could implement the Diamond Head recommendations and make any adjustments at the conclusion of the "Natural Saanich" program of work. Additional staff resources would be needed to accomplish this without compromising the time line presented in this report.

ALTERNATIVES

1. That Council approve the recommendations as outlined in the staff report (Staff Recommend).
2. That Council request staff to revise the subject Terms of Reference to have a shorter timeline for completion of the work-plan.

Potential changes to the Terms of Reference to reduce the timeline could include:

- Eliminating or reducing the scope of scientific data collection (including the citizen science program);
- Have Council set the project objectives rather than through public engagement;
- Reduce public engagement on conservation options; and
- Eliminate potential ecosystem valuation, modelling, and corridor studies.

3. That Council provide alternate direction to staff.

IMPLICATIONS

Financial

Council has directed that \$250,000 be allocated towards this project. Staff reached out to seven local governments who have undertaken similar work in part or in whole (Burnaby, Langley, Surrey, Metro Vancouver, Richmond, Coquitlam and Port Moody). Only the latter two organizations responded. Coquitlam undertook the development of a Strategic Environmental Plan at a cost of \$150,000 plus staff time, however this Plan did not include any additional studies or inventory mapping. Port Moody updated its Environmentally Sensitive Areas Management Plan at a cost of \$150,000 plus staff time, however this Plan was an update of previous work and was limited to their urban core.

It is anticipated that additional funds would be required to complete the project based on the proposed work-plan. The majority of the costs would be consulting fees and public engagement costs. Another major cost would be map production, and separate funding is recommended.

Proposed New Staff Position

Dedicated staff resources for GIS production and publication would be needed to avoid delays in the progress of the Biodiversity Conservation Strategy. An increase in staff would also be needed for the on-going management of environmental databases, mapping updates, and GIS production. If Council supports the subject work-plan, it is recommended that a two-year part time (3 days per week) position be hired. The estimated total cost for this term position is \$110,000.

As no funds have been allocated for this purpose, the additional \$110,000 would need to come from Councils Strategic Initiatives Contingency fund.

Partnerships with academic institutions, community stewardship groups, senior governmental representatives, Indigenous Peoples and non-governmental environmental organizations would increase the depth and breadth of the plan and may increase costs in some areas, and decrease costs in others.

As always, staff would look for external funding opportunities through grant programs and partnerships.

Strategic Plan

Depending on the approach chosen by Council, the work required may involve a significant amount of staff and consultant time (2 - 3 years) or less so. The amount of time allocated to this program of work would reduce the time and resources that can be spent on other Council initiatives.

Prepared by: 
Adriane Pollard

Manager of Environmental Services

Approved by: 
Sharon Hwozdanski


Director of Planning

AP/jsp

Attachments

ADMINISTRATOR'S COMMENTS:

I endorse the recommendation from the Director of Planning.



Paul Thorkelsson, Administrator