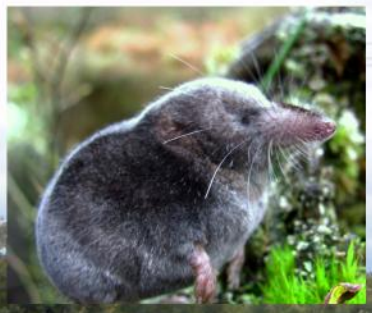
Species at Risk Backgrounder and Policy Review

Resort Municipality of Whistler



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South Coast Conservation Program www.sccp.ca

The SCCP is a multi-partner conservation program helping facilitate projects and activities to protect and restore species and ecological communities at risk on the South Coast of B.C.

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Cover photos: Pamela Zevit, Denis Knopp, Paul berlinguette, and Angus Wilson. From left to right: Pacific Water Shrew, Red-legged Frog, Marbled Murrelets.

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1. Introduction


Chris Lee

1. Introduction

The South Coast Conservation Program respectfully submits this Species and Ecosystem at Risk (SEAR) policy review to the Resort Municipality of Whistler.

The SCCP is a multi-partner conservation program facilitating the restoration and protection of endangered species and ecological communities on BC's South Coast. The SCCP, a non-profit organization, was established in 2005 to fill coordination gaps between various levels of government, conservation groups, land use interests and local communities to conserve species and ecological communities at risk. The SCCP plays a vital role in assisting various stakeholders in navigating the complexities around species at risk. The SCCP used its expertise in species and ecosystems at risk ecology, policy, legislation and management, and expertise in environmental policy and planning evaluation in the preparation of this report. The SCCP also drew on the knowledge of provincial and federal SEAR experts to ensure accuracy of information.

This review is designed to provide an independent analysis of the content, approach, and efficacy of the Resort Municipality of Whistler's plans and policies in protecting Species and Ecosystems at Risk. The report also provides recommendations for the improved integration of SEAR into RMOW's everyday operations and decision-making and provides guidance to help the RMOW work toward compliance with relevant legislation.

The report represents a starting point for the development of a comprehensive strategy for addressing species and ecosystem at risk management and protection. Additional discussion with RMOW staff, provincial and federal species at risk experts, consultation with affected stakeholders and additional inputs of technical expertise and resources will be required to fully address the recommendations put forward in this report. The South Coast Conservation Program would be happy to meet with staff and other Whistler representatives to discuss this review and the recommendations put forward.

1.1 Purpose and Rationale

The resort Municipality of Whistler is a progressive community, rich in environmental values and biodiversity resources, including many species and ecosystems at risk (SEAR). Like most

communities in the South Coast of British Columbia, RMOW is experiencing increased development and urbanization. As the jurisdiction that carries much of the burden for local land use decisions, it can be a struggle to find a balance between these often competing interests. While these interests seem to be at odds, RMOW and other municipal governments are well positioned to protect and benefit from the protection of species and ecosystems at risk. Creative policy and planning measures can be used to enhance both biodiversity protection and land use potential in Whistler. The recommendations put forth in this report will assist the RMOW in working towards compliance with relevant legislation, preserving the environmental values it is known for and relies on, and in doing so promote community health and wellbeing.

1.2 Species and Ecosystems at Risk: Background

The South Coast Region of BC[1] supports some of the highest biodiversity in Canada. It is also one of the most populated areas, with over 2 million people currently calling it home. Over 100 provincially listed ecosystems and over 260 provincially and/or federally listed species of conservation concern also share this region. Three species are already considered extirpated from the South Coast. Some species and ecosystems are found nowhere else in Canada, and some nowhere else in the world.

Species at risk is a term used to describe any wildlife species (plant, animal, or other organism) that is at risk of extinction in Canada. In the United States the term used is endangered species. Species are often 'at risk' as a result of human activities that pose a threat to their survival. Ecosystems at Risk is a term used in B.C. to describe the list of ecological communities assessed as endangered, threatened or vulnerable with respect to continued existence in B.C. by the BC Conservation Data Centre (CDC). Ecological Communities (formerly known as plant communities) include sensitive ecosystems[2] and ecosystems of the provincial Biogeoclimatic Ecosystem Classification[3]

For the purpose of this report, Species and Ecosystems at risk are defined as all species at risk listed under Schedule 1 of *the Species at Risk Act (S.C. 2002, c.29)*[4] as well as BC Conservation Data Centre (CDC) Red and Blue listed species and ecosystems[5].

The SCCP guidebook "Local Government Tools Supporting Species and Ecosystems at Risk: A Resource Guide for the South Coast" provides more detailed information about species at risk in this region and an overview of factors influencing local government in SEAR protection[6]

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1 [1] While 69 species have been assessed as endangered or threatened by COSEWIC, in the South Coast only 59 have been SARA listed and only 20 have federal Recovery Strategies detailing Critical Habitat and Recovery Actions. No ecosystems at risk have been designated by federal legislation. Provincial legislation includes ecosystems under the Forest and Range Practices Act.

2 Sensitive Ecosystems Inventories. 2014. B.C. Ministry of Environment. Sensitive Ecosystem Inventories website. (Accessed November 13, 2014). http://www.env.gov.bc.ca/sei/

3 Meidinger, D and J. Pojar, 1991. Ecosystems of British Columbia. Special report series; No. 6. , Victoria, B.C. 330 pp

4 [4] Species at Risk Act; S.C. 2002, c.29 <Online: http://laws-lois.justice.gc.ca/eng/acts/S-15.3/>

5 More information about provincially listed species can be found on the BC MOE website.

1.3 Legal Context for protecting Species and Ecosystems at Risk

As a local government, it can be hard to navigate jurisdictional responsibilities with respect to SEAR. There are several pieces of provincial and federal legislation that confer some level of protection for a select number of species and ecosystems at risk, but the legislative framework is difficult to navigate and piece-meal at best. A more detailed overview of this information can be found in the SCCP Guidebook[7].

The federal *Species at Risk Act (SARA)* is the most relevant and compelling piece of SEAR legislation in British Colombia, especially for Local governments. Under the *Species at Risk Act*, listed species at risk and their critical habitat must be protected on all land types, **including local government and private land**[8]. *SARA* does not apply to all provincially (Red and Blue) listed species. *SARA* applies only to species listed under Schedules 1, 2 and 3 of the *Act.*

1.4 Community Benefits of Protecting Species and Ecosystems at Risk

In addition to compliance with federal and provincial regulations, there are a variety of community benefits associated with protecting species at risk and biodiversity values in the Resort Municipality of Whistler and surrounding area. Table 1, extracted from 'A Guide to Municipal Tools Supporting Wildlife Species and Habitats in Nova Scotia' summarizes the rationale and benefits of local government involvement in SEAR and habitat conservation.[9] The amount that a community values each 'benefit' differs across and within communities. Staff and officials at the RMOW can tailor education, outreach and policy to appeal to the values held by their residents. In Whistler, the maintenance of ecosystems services like erosion control and flood management and the maintenance of ecotourism and high recreational experiences are benefits that resonate with the community. Several public opinion surveys performed in the South Coast region show the support of the general population for the protection of the natural environment and species at risk. These studies can be used as evidence of public support when engaging in discussions with the public, council or other interested parties[10]

Table 1. Rationale and benefits for local government involvement in species at risk, wildlife, and habitat conservation and recovery initiatives (Nova Scotia Natural Resources, 2005).

General Rationale	Specific Benefit
Creates informed and Healthy Public	Species at risk are indicators for the health of environment
	Better understanding of links to human health, quality of life

6 South Coast Conservation Program, 2014. Local Government Tools Supporting Species and Ecosystems at Risk: A Resource Guide for the South Coast. Available on SCCP's website.

7 South Coast Conservation Program, 2014. Local Government Tools Supporting Species and Ecosystems at Risk: A Resource Guide for the South Coast. Available on SCCP's website.

8 Species at Risk Act; S.C. 2002, c.29 <Online: http://laws-lois.justice.gc.ca/eng/acts/S-15.3/>

9 Nova Scotia Natural Resources. 2005. A Guide to Municipal Tools Supporting Wildlife Species and Habitats in Nova Scotia.

10 Species at Risk Public Opinion Surveys for Canada, BC and the South Coast

	Encroachment on habitats leads to wildlife-human encounters – SEAR awareness and education can help mitigate this
Improved Economic Competition	Tourism (aesthetics, community image)
	Ecotourism
	Increased Property Values
High Quality Recreational Experience	Outdoor activities (hiking, biking, canoeing, camping)
	Hunting and fishing
Maintenance of Ecosystem Services	Forests and vegetation moderate our climate, reduce greenhouse gases (absorb carbon dioxide and release oxygen), and clean our air
	Water purification
	Regulating and cleaning soils
	Maintaining the water cycle
	Recycling nutrients
	Pollinating crops
	Flood management
Improved Quality of Life	Health of local community
	Sustainable economy
	Environmental health
Untapped Funding Opportunities	Collaborate on conservation projects
Not Violating Existing Legislation	Species at Risk Act (section 61 relates to effective protection of critical habitat)

2. Recommendations for the Integration of SEAR into Resort Municipality of Whistler Decision Making


Gord Gadsden

2.1 Compile Species at Risk Information

2.1.1 Generate list of Species and Collect Spatial Data

In order to benefit from the protection of species and ecosystems at risk, the Resort Municipality of Whistler needs to have the best available information about what species are present and exactly where they occur. This requires collection of up to date SEAR habitat and occurrence data from federal, provincial and academic sources and regular updating of RMOW maps to reflect these updates. Accurate and up to date spatial data about SEAR and their habitat is important in prioritizing land use and conservation measures. Acquisition (parks, protected areas), planning (green networks, zoning, environmental development permit areas,) and other types of protection measures can be more effectively established in a way that best meets management objectives. SEAR spatial data should be linked to existing property tenure information to ensure that parcels with SEAR values are flagged during any building or development permit application, recreational trail development, or other such planned development.

The federal and provincial governments have spatial data for many species and ecosystems at risk in the South Coast.

Provincial Species and Ecosystem at Risk Information

The online BC Species and Ecosystems Explorer can be used to generate lists of provincial species and ecological communities based on a number of criteria options, including conservation or legal status, and spatial distribution[11]. Searching "Squamish Forest District" for red and blue listed species will provide you with a list of SEAR in the RMOW, with potential filters according to species with no potential to occur (E.g. marine). The BC [12]Conservation Data Centre (CDC) also maps known locations of Red- and Blue-listed species and ecological communities, referred to as 'occurrences'. The Conservation Data Centre iMap theme can be used to view mapped occurrences and print occurrence reports. Shape files of public occurrences can be downloaded via the B.C. Government Data Distribution Service, and fall

[11] The Species and Ecosystems Explorer can be found online.

[12] Data Submission forms and information regarding reporting occurrences can be found online.

under the Open Government License[13]. It is important to note that the absence of occurrence records in an area of interest does not mean that there are no species or ecosystems at risk present; only that there are none currently recorded in the database corresponding to a specific location. It is recommended that the RMOW generate a list of SEAR in its area using the advanced search criteria " Squamish Forest District" in the CDC Species and Ecosystems Explorer. Species and ecosystems are dynamic, and recorded occurrences and listings change as more information is sought and discovered. As such, it is recommended that the RMOW assess this list annually (at minimum) and request and obtain relevant information (new species, updated habitat info, new occurrences etc.) as it becomes available. Any and all occurrence data collected by the RMOW should be provided to provincial and federal representatives to be included in the CDC database.

Federal Species at Risk Critical Habitat Information

Environment Canada's Canadian Wildlife Service (CWS) shares detailed spatial data describing the location of candidate and final Critical Habitat for species requiring Recovery Strategies under the *Species at Risk Act.* It is recommended that the RMOW request Recovery Strategies and the associated critical habitat information for all species on the RMOW list (list generated as per instructions in section 2.1.1). It is also recommended that the RMOW update this list annually (at minimum) and request and obtain relevant information (new species, updated habitat info, new occurrences etc.) as it becomes available. It is recommended that the RMOW subscribe to the SARA Public Registry email newsletter[14] to receive updates on recovery strategies, upcoming and current consultations and emergency species listings.

Static maps pertaining to final critical habitat are also publically available in the individual species' recovery strategies at: www.sararegistry.gc.ca.

Spatial data (in GIS format) pertaining to candidate Critical Habitat is shared in compliance with Section 39 of the *Species at Risk Act*, and is bound by the conditions of a No-Fee End-Use **Restricted** License Agreement for Government of Canada Geographic Data. The RMOW can contact the Species at Risk Consultation Coordinator if they have any questions or wish to enter into a data sharing agreement. Spatial data should be interpreted in conjunction with recovery strategies and any questions or concerns should be addressed to recovery teams and regulatory authorities.

2.1.2 Compile Additional Information

The following information aids in the identification and management of SEAR on RMOW lands. Compiling and organizing this information up-front will increase the efficiency and effectiveness of protection efforts.

[13] Some occurrence records are secured for various reasons. Details of secured occurrence records are available if there is a "need-to-know". Please contact CDC for information about secured occurrence records.

[14] Subscribe online.

Ecosystem Mapping Data

Terrestrial Ecosystem Mapping and the Sea to Sky Habitat Atlas can provide a more comprehensive picture of potential SEAR habitat and areas of conservation interest. As mentioned above, the absence of SEAR occurrence records in an area of interest does not mean that there are no species or ecosystems at risk present; only that there are none currently recorded in the database corresponding to a specific location. Wetlands, riparian areas and other sensitive ecosystems identified through TEM are often the remnants of the natural ecosystems that once occupied a much larger area. As human activities change an increasing portion of the landscape, these remnant ecosystems become increasingly valuable for the conservation of biodiversity. Species at risk habitat and ecological communities at risk often overlap partially, if not entirely with Sensitive Ecosystems such as woodlands, mature and old growth forests, riparian areas, and wetlands. While there is a high degree of overlap between sensitive ecosystems and SEAR habitat, it is prudent to ensure both sets of information are collected and represented in RMOW mapping in order to 1) ensure species specific DP submission requirements are used when a SAR is known to be present and 2) to ensure that RMOW can demonstrate compliance with *SARA* if required.

It is recommended that RMOW continue to use this Ecosystem mapping data to inform development permit areas for the protection of the natural environment (E.g. Development Permit Areas for the Protection of the Natural Environment, as identified in the quashed RMOW OCP 2013). It is recommended that it also be used to inform the development of additional wildlife connectivity corridors, future protected areas and parks acquisitions, and potential habitat restoration projects.

Best Management Practices (BMPs) and "Develop with Care" Guidelines

BMPs and provincially developed Develop with Care Guidelines for each of the species identified in section 2.1.1. should be compiled.

Develop with Care guidelines were prepared by the provincial government for use by local government planners and the development community as a comprehensive guide to maintaining environmental values during the development of urban and rural lands. The guidance documents feature information on 'green' alternatives to typical urban development, riparian protection, terms of reference for conducting biological inventories, checklists for streamlining review processes, sector and species specific BMPs and more[15].

Best Management Practices (BMPs) for species and ecosystems at risk provide guidance for managing activities that are a threat to the recovery of listed species. These management practices are based on the best available science and recognize a need to promote the conservation of species on working landscapes. Local governments can establish, follow and disseminate BMPs. Some BMPs are included in the Develop with Care guidelines, and organizations like the Stewardship Center of BC have developed comprehensive 'Voluntary Stewardship Practices' for several of the most common threats to species at risk. Through

[15] Develop with Care guidelines also include a number of species at risk factsheets specific to the South Coast region.

extensive consultation with individuals and organizations that have an interest in the activities addressed, the Stewardship Centre of BC has developed these BMPs for drainage maintenance in agricultural water ways, recreational climbing, domestic and feral cat predation, riparian areas in settled landscapes, and guidance for restoration activities in riparian areas[16].

Guidelines and BMPs should be used in the following ways:

- Shared with RMOW operations staff to ensure they are conducting municipal work in a way that supports species and ecosystems at risk.
- Shared with developers to promote SEAR friendly development
- Form the basis for development permit conditions and site alteration permit conditions.
- Shared with the public and special interest groups (i.e. climbers, Whistler Blackcomb outdoor recreation clubs etc.) to promote SEAR friendly activities within the RMOW's jurisdiction and beyond.

Species and Ecosystems at Risk Expert Contact Information

There is a lot to consider when addressing species and their habitat in land use planning. Navigating legislation, politics and community interests and understanding species-specific recovery actions can be complicated. Connecting with federal and provincial representatives, local conservation organizations and other experts who may be able to provide expertise can help streamline the process and reduce challenges.

Species at Risk Recovery Teams: A Recovery Team exists for most species at risk in BC that have been assessed as at risk by COSEWIC, the arms length scientific body that assesses the status of species in Canada. These teams help oversee all conservation and recovery efforts for a species, including the development of the 'recovery strategy'. Conservation groups and local governments wanting to undertake activities to enhance critical habitat or assist with conservation and recovery of a species within their community would need to communicate with the Recovery Team prior to proceeding. This ensures efforts are coordinated and harmonized with planned actions by specialists and regulators and based on the most up to date recovery recommendations. To contact a specific recovery team, search the species recovery strategy on the Species at Risk Public Registry or contact the appropriate provincial or federal representative (Appendix B).

Provincial and Federal Representatives: In addition to recovery teams, provincial and federal SEAR representatives are an excellent resource for information, support and guidance. Examples of ways provincial and/or federal representatives can assist the RMOW in addressing SEAR and habitat protection include:

- The provincially coordinated Species and Ecosystems at Risk Local Government Working Group (SEAR LGWG), providing a forum for communication between

[16] The SCBC's Draft Stewardship Practices guides for species at risk are available on their website. .

provincial and local governments on SEAR issues. The group works together to enhance SEAR protection on private and local government lands.

- Advice on funding sources and potential partners for SEAR related work.
- Access to GIS layers and maps of Critical Habitat for federally listed species, species and ecosystems at risk occurrence information, and provincial sensitive ecosystems inventory (SEI) data for use in local government land use plans[17].
- A list of species at risk for which the federal government will be performing public consultation. This will help local governments address any questions that get misdirected to them. See Appendix C for an example notice than can be sent to residents.
- Communications language and support or presentations to staff, officials or developers or the public regarding SAR in BC and/or the application of *the Species at Risk Act* on private land.
- Information on best management practices and current science for species and ecosystems at risk.

2.2 Develop Biodiversity Conservation Strategy

The development of a comprehensive Biodiversity Conservation Strategy that is directly linked to and informs the OCP and other municipal plans and policies is recommended. This type of strategy takes a holistic approach that extends beyond the scope species and ecosystem at risk and encompasses all biodiversity values, many of which indirectly affect SEAR. The Biodiversity Conservation Strategy (BCS) should include a green network that spatially identifies habitat and ecosystem values including but not limited to, sensitive ecosystems, connectivity corridors, species at risk habitat and ecological communities at risk, parks and green space, ALR and forestry tenures. The BCS should include goals, objectives and implementation plans as well as a financial strategy that identifies market-based tools for biodiversity conservation, and terms and conditions for their use. It is recommended that the BCS incorporate the recommendations contained in this report.

Local Government Example: City of Surrey's Biodiversity Conservation Strategy[18]. It is based on ecosystem modelling and mapping and includes policies, BMPs, market-based approaches to protect identified ecosystem values.

2.3 Develop Internal Support and Protocol for Addressing SEAR

2.3.1 Share Information

Misinformation, miscommunication and the resulting lack of trust are key barriers to the successful inclusion of SEAR and biodiversity considerations into local government planning. A well-informed staff, council, public and development/land use community is a foundation to moving conservation initiatives forward smoothly. Opposition, differing values, priorities and agendas will of course exist. However, a well-informed community

[17] Government of British Colombia. Sensitive Ecosystems Inventories.

[18] BCS can be found on the Surrey website. Details on the development of the BCS and green network can be found here.

will reduce the number and magnitude of issues and will expedite the process of finding solutions.

Start internally by educating and training RMOW staff in all relevant departments is an essential step in ensuring that there is a system-wide acknowledgement and integration of values that the natural environment, wildlife, habitat and biodiversity have as part of local government decision-making. These issues must be a part of everyday operations within the RMOW and must be the responsibility of all rather than just an afterthought or an addendum added to approved policies and plans. In-house staff workshops, training sessions, lunch-and-learns, and educational materials like issue specific booklets/notices can address local government-specific elements of environmental protection.

A well-informed public is also key to effectively integrating SEAR protection into long-term decision making. Involving the public can increase the level of ownership and value recognition of species and species related projects, reduce opposition to local government led initiatives and policy development and act as an excellent public relations opportunity. The RMOW should include the public at each step of the process, with the caveat that all Whistler staff should be well informed of the issue and process before consultation with the public begins.

2.3.2 Designate point person for SEAR related inquiries.

While it is important for all staff at the RMOW to have a basic understanding of SEAR and how it relates to their role and their work, it is recommended that an individual be the point person for SEAR related inquiries both externally and internally. Currently, federal species at risk consultations often don't make it to staff, or staff handles inquiries from concerned citizens when they should be directed to upper level government. Having a point person who is connected to the appropriate experts is important. In the early stages of addressing SEAR, the point person can help facilitate inter-departmental collaboration and training workshops, disseminate SEAR information including BMPs and respond to SARA species consultations that effect the municipality.

2.3.4 Revise RMOW plans policies and bylaws to incorporate SEAR

Suggested revisions to the Resort Municipality of Whistler's Plans Policies and Bylaws can be found in Appendix A. The purpose of these revisions is to ensure SEAR is included in everyday decision making at the municipal level. The proposed revisions and recommendations are designed to help the RMOW work towards compliance with provincial and federal legislation, with specific focus on compliance with the federal *Species at Risk Act.*

2.3.5 Ensure RMOW operations support species and ecosystems at risk

Many local governments own a significant amount of land and have to manage and maintain these properties. As a landowner, the RMOW can lead by example when it

comes to species and ecosystems at risk protection. The following considerations will increase the RMOW's ability to manage SEAR on its land.

- Identify presence/ absence of species on RMOW land using spatial information compiled as per section 2.1.2 of this report. Perform additional on-the-ground surveys for species and ecosystems at risk in collaboration with provincial and federal species at risk experts and/or include select SEAR in the RMOW ecosystem monitoring program.
- Inform operations staff of species at risk habitat or ecological communities at risk that occur on RMOW land.
- Train operations staff to identify species at risk
- Develop a procedure for the reporting of SEAR occurrences to RMOW's SEAR point person and to the appropriate provincial and federal representatives.
- Make Staff aware of the best management practices and develop with care guidelines for species that occur on RMOW lands (List of species compiled as per recommendations in section 2.1.2 of this report)
- Work with species at risk experts to develop species and situation specific mitigation strategies where possible.

It is incredibly important for Whistler to know what SEAR is present or likely to be present on their land and manage accordingly. It is especially important before construction or development. Whistler can lead by example by selecting maintenance and construction methods that minimize or eliminate negative impacts. These types of solutions confer many benefits. For example, choosing to maintain natural vegetation on a site would be integral to retaining natural ecosystem services such as noise and visual buffering, treatment of run-off, helping control erosion as well as maintain natural habitat for wildlife species.

2.3.6 Use Sensitive Ecosystem Inventory and SEAR data to inform Acquisitions, Divestments and Parks Management

If SAR critical habitat or ecological communities at risk are identified on RMOW land, the RMOW can also take steps to ensure the protection of the land through (as an example), the formation of a park, protected area, setting up a conservation easement, partnership with a land trust or taking advantage of the benefits of donating land through the federal "Ecogifts program".

The RMOW can also engage in habitat restoration projects on municipal land, where appropriate. Qualified professionals should undertake habitat rehabilitation and recovery team members should be consulted if the restoration is designed for a specific species at risk. It is recommended that the RMOW develop an inventory of potential restoration projects (informed by SEAR mapping data, TEM, local habitat inventories and recovery expert advice). This inventory can be included as part of the Biodiversity Conservation Strategy or as a separate document.

When purchasing land, Whistler can give consideration to whether or not the land has significant wildlife value including specific ecosystems and species at risk habitat, and how it is connected to other habitat areas, such as government owned parks and protected areas. In this way, RMOW can optimize the benefit of land purchases and increase the amount of connectivity through the landscape.

Finally, when the RMOW sells land, it should be aware of any sensitive ecosystems, species at risk or habitat attributes. To support this, a process could be established where parcels of land for sale are cross-referenced with a database of species and ecosystems at risk locations and a Recovery Team or provincial or federal representative is contacted prior to the public sale of land (See Appendix B for representative contact information)

2.3.7 Expand Ecosystem Monitoring Programs

It is recommended that the RMOW revise its Ecosystem Monitoring Program to include ongoing monitoring for species and ecosystems at risk, with the aim of tracking biodiversity and ecosystem health over time. Having a systematic way to track biodiversity in the region will provide a better picture of the state of ecosystem health and can also inform and lend legitimacy to decisions that affect the environment. Long term monitoring will provide a more accurate and fine-scale picture of SEAR resources in the RMOW than is currently provided by provincial and federal mapping. While the development of a monitoring program can seem onerous and costly, there are opportunities to partner with local ENGOs and apply for grants that would support monitoring program development. Note: Any SEAR data collected by the RMOW through the Ecosystem monitoring program or by any other means should be communicated with species recovery team biologists. The provincial government has developed the following recommendations with respect to SEAR sampling:

- Sampling must be conducted in accordance with any detailed standards that have been recommended by the Ministry of Environment. Data submissions should be in accordance with Conservation Data Centre protocol[19].
- If detailed standards are not available, then Resources Inventory Standards Committee (RISC) approved sampling methodology must be followed[20]
- To ensure that data are considered credible, a qualified environmental professional should conduct sampling.
- Surveys should be conducted at the appropriate time of year because for some species detection out of season may be impossible.
- Survey methods should be adjusted where possible to avoid incidental mortality of non-target species (e.g., when minnow trapping in the range of the Pacific Water Shrew)

[19] Data Submission forms and information regarding reporting occurrences can be found online.

[20] RISC standards exist for a variety of ecosystem and species types. Information can be found online.

3. Conclusion

Both globally and locally, human activities have already had significant impacts on native flora and fauna and the ecosystems that they rely on. With the population of the Whistler and the Sea to Sky Corridor steadily climbing, increasing conflicts over conservation versus population growth are likely to increase. Species and Ecosystems at risk represent some of the most unique and sensitive biological resources in the Whistler area. A loss of SEAR in the RMOW is indicative of the degradation of environmental health, human health, long-term economic prosperity and cultural values of the region. Proper consideration and planning is necessary now to ensure Whistler retains the environmental, cultural and recreational values it is known for.

The recommendations provided in this report represent a starting point for the development of a comprehensive strategy for addressing species and ecosystem at risk management and protection. Additional discussion with RMOW staff, provincial and federal species at risk experts, consultation with affected stakeholders and additional inputs of technical expertise and resources will be required to fully address the recommendations put forward in this report. The South Coast Conservation Program would be happy to meet with staff and other RMOW representatives to discuss this review and the recommendations put forward and look forward to working with the RMOW as the process evolves.

Appendices

Appendix A: Resort Municipality of Whistler's SEAR Policy Review and Recommendations

As agreed upon with RMOW staff, the SCCP reviewed the content approach and efficacy of the following municipal plans, policies and tools in protecting species and ecosystems at risk:

1. OCP Bylaw 1993, 2013
2. Land Use Procedures and Fees Bylaw, 2012

Recommended revisions and additions to these plans and policies that allow for better consideration of SEAR in RMOW land use practices are provided below.

1. Resort Municipality of Whistler Official Community Plan

General Recommendations

a. It is recommended that the RMOW request Recovery Strategies and the associated critical habitat information for all species on the RMOW list (list generated as per instructions in section 2.1.1 of this report). It is also recommended that the RMOW update this list annually (at minimum) and request and obtain relevant information (new species, updated habitat info, new occurrences etc.) from the province and the federal government as it becomes available.
b. Where appropriate, modify language associated with "sensitive ecosystems", "important ecosystems" and "habitat" to explicitly include species at risk, their habitat, and ecological communities at risk. "Sensitive ecosystems" don't always include SEAR, and the definition of SEAR doesn't include all sensitive ecosystems so it is important to make sure both of these environmental values are represented.
c. Provide updated definition of Species and Ecosystems at Risk in OCP Glossary.

> Definition: *Species at risk* include species, sub-species or populations that are listed under Schedule 1 of *the Species at Risk Act (S.C. 2002, c.29)*[21] and/or BC Conservation Data Centre (CDC) Red and Blue listed and/or those considered

[21] Species at Risk Act; S.C. 2002, c.29 <Online: http://laws-lois.justice.gc.ca/eng/acts/S-15.3/>

regionally important. *Ecosystems at risk* include species communities that are provincially Red and Blue listed[22].

d. Land identified as species and ecosystems at risk habitat should be designated as Development Permit Areas for the Protection of the Natural Environment and/or require specific considerations (ie additional submissions) during the Building Permit and Excavation Permit processes to ensure species are protected before, during and after development.
e. A Green Infrastructure Network should be developed that identifies areas of environmental value and outlines a comprehensive strategy for the protection, enhancement management of these areas.
f. It is recommended that the RMOW strengthen, throughout the OCP, the integration of the effective management of invasive species, which present a major threat to SEAR.

Specific Recommendations

R1) Chapter 2, page 2-5 – In a section outlining First Nation interests that are considered in the OCP, with a focus on natural resource management. It is recommended that the RMOW explore opportunities to work with First Nations in the protection of species and ecosystems at risk. Opportunities could include applying for funding for SEAR related projects through the federal Habitat Stewardship Fund and/or Aboriginal Fund for Species at Risk

R2) Chapter 4, page 4-3 --Policy 4.3.1.1 should include explicit reference to SEAR. Revise to read "Encourage all new buildings and renovations to be built with environmentally sustainable methods, standards and technologies representing best practices. Design, construction and renovation practices should follow policy 6.2.1.5 and species specific *Develop with Care* guidelines, and above all, avoid destruction of important ecosystems, species at risk habitat, ecosystems at risk and other environmental values.

R3) Chapter 4, page 4-15—Add a 5th policy to Objective 4.11.1 that states "To the greatest extent possible work with Provincial agencies to limit rock and mineral extraction in the vicinity of important ecosystems, species at risk habitat and ecosystems at risk.

R4) Chapter 4, page 4-16—Add a 4th policy to Objective 4.12.1 that states "To the greatest extent possible promote timber harvesting and land management practices within the CCF that avoid or mitigate destruction to important ecosystems, species at risk and their habitat and ecological communities at risk.

R5) Chapter 6, Page 6-1—Revise second paragraph of "Our Shared Future" section to read "Sensitive ecosystems with high biodiversity values are protected ***and restored*** through legal and policy tools. Native plants continue to thrive in the Whistler valley. Invasive species are, wherever possible, eliminated and prevented."

[22] More information about provincially listed species can be found on the BC MOE website.

R6) Chapter 6, page 6-2 --As per the policies identified in 6.1.1.1-6.1.1.3, update RMOW ecosystem mapping to incorporate SEAR spatial data (gathered as per section 2.1.1 of this report). Species at risk critical habitat should be included in DP Areas and DP Area Guidelines should be revised to include BMPs for SEAR. Any updates in Sensitive Ecosystems inventory or TEM data should also be included.

R7) Chapter 6, page 6-4 -- With respect to policies 6.2.2.5 and 6.2.2.6, develop a strategy to accomplish these policies, and ensure habitat connectivity whether as part of the " Whistler Biodiversity protection plan" proposed in section 6.2.2.1, or as part of a separate green infrastructure network. Several municipalities in the South Coast are mapping and developing green infrastructure networks that identify lands with environmental values and the connectivity between them. Green networks (GN) can manage for multiple objectives by providing opportunities for recreation, identifying ecosystem connectivity, protection and restoration opportunities, as well as informing decisions regarding urban growth and zoning and park and recreational acquisitions. For example, some trails in Schedule G of the quashed 2013 OCP and some parks in Schedule H of the same OCP could be included in a green network, as long as it is acknowledged that these areas support but do not negate the need for intact, protected areas with high habitat value to be included in the GN. Rather than just being a map of the green spaces that currently exist within the RMOW's jurisdiction, the green network should identify any land (including private) that has ecological value and what that value is, identify land that has restoration potential, and identify areas that could be added to the network. It should also include a concrete strategy for the use, protection and restoration of the identified network. For example, the city of Surrey's Green Network and associated Biodiversity Conservation Strategy outline how much of the green network is privately owned and options for the protection of that land. The options include but are not limited to a green levy or development cost charges used to purchase and set aside lands of ecological value, or Development Guidelines or landscaping bylaws for the management of properties adjacent to the network.

Local Government Example: City of Surrey's Green Infrastructure Network, which is detailed within the city's Biodiversity Conservation Strategy[23]. The City of Richmond is also developing a similar "Ecological Network".

R8) Chapter 6, page 6-4 – Include additional policy under Objective 6.2.2 "Maintain and enhance native species, habitat and biodiversity" that commits to determining financial strategy to support the objective. Add policy that states, "Develop a financial strategy for the acquisition of environmentally sensitive land, informed by the green network." A plan, complete with financial strategy is necessary in order to prioritize and optimize the acquisition of environmentally sensitive land. If part of the parks and recreation acquisition plan, it should be

[23] BCS can be found on the Surrey website. Details on the development of the BCS and green network can be found here.

clear that the management objectives for certain parcels are protection and restoration before recreation.

Local Government Example: The Capital Regional District's Land Acquisition Fund was initially established in 2000 for a ten year period. An assessment determined that an average rate of $10 per household was both politically palatable and fair. The fund is used to acquire land for the regional parks and trails system, and its administration is based on the vision and strategic direction in the Regional Parks' Master Plan[24]. The City of Surrey is currently exploring similar methods to acquire land identified in their green infrastructure network.

R9) A general comment about section 7: Section 7 should have a greater focus on the link that exists between community health and wellbeing and environmental health. Other sections in the OCP should be linked to the environmental outcomes. It important to make these linkages throughout the OCP. In this way, environmental considerations are integrated into everyday decision making rather than a section in the OCP that can be easily overlooked. In this vein, policies 6.2.1.2 through 6.2.1.5 should be repeated in Chapter 4: Land Use and Development. The following policy should be included in the OCP, preferably in both the Environment and Land Use and Development sections: "Development for Future Sub-Area Plans, in Development Areas shown in Schedule A, shall not be permitted until environmentally sensitive areas (including important ecosystems, species at risk habitat and ecological communities at risk) are identified and mitigation strategies are provided for protection or enhancement as part of the approved Sub-Area Plan."

Development Permit Guidelines

R10) Expand "Development Permit Area: Protection of Wetland and Riparian Ecosystems and Protection of Other Ecosystems to include identified species at risk critical habitat and ecological communities at risk. Update Development Permit Areas for the Protection of the Natural Environment (Schedules I, J and K) to include SEAR. See section 2.1 of this report for guidance on where to find critical habitat mapping.

R11) DPA 1,Wetland and Riparian Ecosystems, page D-4 – revise General Guidelines to include the following:

- Under guideline a.) Add clause "recommendations for construction management plans indicating how non disturbance areas will be protected during construction such as preventing encroachment (fencing), erosion and sedimentation, storage and maintenance of vehicles and controlling invasive plant species (a major threat to SEAR).
- Under guideline a.) add clause "recommendations for specific protection measures for the critical habitat of any species at risk habitat and/or ecosystems at risk identified on site. Protection measures must follow BMPs for the species or ecosystem at risk in question and should be developed in collaboration with provincial SEAR biologists.

[24] Information on the CRD's land acquisition fund can be found here.

R12) DPA 1 Wetland and Riparian Ecosystems, page D-7 – revise *Wetlands* guideline d.) to read "Maintain, ***protect*** and restore wildlife and plant habitat including breeding, nesting and feeding areas for wildlife, especially species at risk **habitat and ecological communities at risk**.

R13) DPA 1 Wetland and Riparian Ecosystems, page D-8 – add *Riparian Ecosystems* guideline that reads "Maintain, ***protect*** and restore wildlife and plant habitat including breeding, nesting and feeding areas for wildlife, especially species at risk **habitat and ecological communities at risk**.

R14) DPA 2: Protection of Other Ecosystems, page D-10 -- revise General Guidelines to include the following:

- Under guideline a.) add clause "recommendations for construction management plans indicating how non disturbance areas will be protected during construction such as preventing encroachment (fencing), erosion and sedimentation, storage and maintenance of vehicles and controlling invasive plant species (a major threat to SEAR).
- Under guideline a.) add clause "recommendations for specific protection measures for the critical habitat of any species at risk habitat and/or ecosystems at risk identified on site. Protection measures must follow BMPs for the species or ecosystem at risk in question and should be developed in collaboration with provincial SEAR biologists.

R15) DPA 2: Protection of Other Ecosystems, page D-11, D-12 – Add the following guideline to ***each*** of the ecosystem types (forested floodplain, old growth and mature forest, early succession forest, high mountain, avalanche track):

> "Keep free from destruction ecosystems or habitats that are listed as red or blue listed by the Conservation Data Centre, under Schedule 1 of the *Species at Risk Act, 2002* and/or are otherwise identified as regionally rare or at risk."

R16) DPA 2: Protection of Other Ecosystems, page D-12 – While very comprehensive this DPA does not include all possible ecosystems types where SEAR could be found therefore, it is important to expand the DPA for the Protection of the Environment to include SEAR habitat spatial data and add a SEAR section into these DPA Guidelines. Guidelines should include (but not be limited to) the following:

Species at Risk Habitat and Ecosystems at Risk

a. Plan, design and implement development in a manner that does not disturb natural biodiversity of ecosystem function.
b. Keep free from destruction ecosystems or habitats that are listed as red or blue-listed by the Conservation Data Centre, under Schedule 1 of the *Species at Risk Act, 2002* or are otherwise identified as regionally rare or at risk.
c. Manage development on individual sites in a manner that does not disturb or adversely affect the biophysical attributes identified as necessary for the species or ecosystem's survival and recovery in official Recovery document.

R17) As discussed previously, it is highly recommended that RMOW includes all know SEAR spatial data in its DPAs. While Whistler Bio Blitzes are an excellent source of biodiversity cataloguing, there are still many areas that have not been surveyed for presence of SEAR. As such, it is guaranteed that SEAR exists outside spatial data that is currently available. With this in mind, the RMOW should consider including the above SEAR guidelines in ALL development permit areas, especially those close to identified SEAR habitat. The RMOW Environmental Protection Bylaw contains an avenue to enforce (or fine for infractions) specific environmental conditions included in Development Permits.

Glossary

R18) Important Ecosystems: The term "important ecosystems" should be more narrowly defined as the ecosystems identified in DPA 2 (forested floodplain, old growth and mature forest, early succession forest, high mountain, avalanche track). Species at risk should not be lumped under this category and should appear on it's own as it is a related, but different environmental value that has slightly different management considerations. Where possible to OCP should read "sensitive and important ecosystems and species at risk habitat and ecosystems risk ".

R19) Species at Risk: Firstly, this definition should be changed to 'Species and ***Ecosystems*** at Risk". Furthermore, the definition should be expanded to include the following:

Species at risk include species, sub-species or populations that are listed under Schedule 1 of *the Species at Risk Act (S.C. 2002, c.29)*[25] as well as BC Conservation Data Centre (CDC) Red and Blue listed, and/or those considered regionally important. *Ecosystems at risk*, also known as *ecological communities at risk,* include species communities that are provincially Red and Blue listed[26].

2. Land Use Procedures and Fees Bylaw NO. 2019, 2012

Recommendation to review this Bylaw in full with respect to integrating consideration of SEAR.

In addition:

R20) Interpretation part c., with respect to QEP's it should be identified that QEPs assessing presence/ absence of SEAR and providing guidance on protection and mitigation measures should have specific knowledge with respect to SEAR.

[25] [25] Species at Risk Act; S.C. 2002, c.29 <Online: http://laws-lois.justice.gc.ca/eng/acts/S-15.3/>

[26] More information about provincially listed species can be found on the BC MOE website.

R21) Development Approval Information, section 7.a.i.) Amend to 'Species at risk habitat and/ or ecological communities at risk'.

R22) Development Approval Information, section 7.b.) Amend to include 'Species at risk habitat and/ or ecological communities at risk'.

R23) Development Approval Information, section 7.b.i.b) Amend to include 'Species at risk habitat and/ or ecological communities at risk' as one of the pieces of information that must be contained in the report.

R24) Development Approval Information, section 7.b.iii and 7.b.iv) Amend to include 'Species at risk habitat and/ or ecological communities at risk.'

R25) Development Approval Information, section7.b.iv) It should be noted that where possible species at risk habitat and ecological communities at risk should not be impacted, and the habitat enhancement and replacement ratio should be the last option (as outlined in OCP policy 6.2.1.5). Relevant provincial and federal regulations and guidelines should be followed.

R 26) Work must be completed in accordance with relevant provincial and federal regulations, including the Species at Risk Act (2002). Where species and ecosystems at risk are present, the proponent must follow species best management practices subject to approval by species recovery team experts.

Appendix B: Contact Information

Contacts:

The following individuals can be contacted for questions related to species and ecosystems at risk, species of conservation concern, and other significant wildlife habitats in the South Coast.

Federal Representatives

For general queries and to be directed to additional expertise:
Species at Risk Consultation Coordinator
Environment Canada
Canadian Wildlife Service
SAR.pyr@ec.gc.ca
604-350-1900

Provincial Representatives

For general queries and information regarding SEAR and local governments:
Lynn Campbell Species at Risk Biologist
Ministry of Environment
Victoria, BC
Lynn.Campbell@gov.bc.ca
tel: (250) 387-9676; fax: (250) 387-9750
http://www.env.gov.bc.ca/wld/searl_gwg/

For area-specific information regarding SEAR in the South Coast Region:
Kym Welstead or Kristina Robbins
Ministry of Forests, Lands and Natural Resource Operations
Surrey, BC
Kym.Welstead@gov.bc.ca, Kristina.Robbins@gov.bc.ca

For information on provincial recovery planning please visit:
*http://www.env.gov.bc.ca/wld/recoveryplans/rcvry1.htm#sixth_*

For information on status ranking or occurrence data for SEAR in BC:
BC Conservation Data Centre
Ministry of Environment
Victoria, BC
CDCdata@gov.bc.ca

Appendix C: Example notice to residents regarding federal species at risk consultation

Example notice that local governments could use to communicate with residents about a species at risk draft recovery strategy consultation taking place in their community:

Did you know our community is home to (type and name of species? E.g., a small mammal called the Pacific Water Shrew). The habitat this species needs to live includes: (describe features found in species fact sheet provided in the consultation materials. E.g., near bodies of water). Environment Canada's Canadian Wildlife Service is consulting on a draft recovery strategy document for (name of species). A recovery strategy describes what a species needs to survive and recover. You may receive information regarding this consultation process in the mail if Critical Habitat has been identified for the species and it includes your land. If you have seen this species and/or have the type of habitat described on your property you can contact Environment Canada to learn more. Please send inquiries to:

Species at Risk Consultation Coordinator
Environment Canada
Canadian Wildlife Service
SAR.pyr@ec.gc.ca
604-350-1900