



## **2013-2015 Program Report**

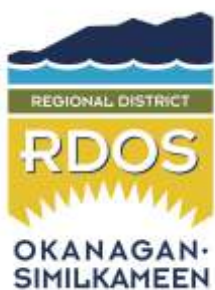


**South Okanagan  
Similkameen**

CONSERVATION  
PROGRAM



*The core administration of the South Okanagan Similkameen Conservation Program (SOSCP) is supported by Partner contributions. The work of the SOSCP would not be possible without the generous support of the following organizations:*



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*Bryn White, Jillian Tamblyn, Michael Bezener, Jack Bennest, Dick Cannings, Juliet Craig, Margaret Holm, The Nature Trust of BC, Nature Conservancy of Canada, Okanagan Nation Alliance, Graham Osbourne, Alison Peatt, Alyson Skinner.*



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# MESSAGE FROM THE VICE CHAIR



It has been a great pleasure to act as Vice Chair over the past year. I was welcomed by a core group of dedicated individuals representing the diverse membership that is the SOSCP. There is a great history within this partnership organization dating back over 15 years. Coming on board as Vice Chair and getting to work with some very talented and dedicated individuals and organizations has been a wonderful opportunity and experience. Whether the organizations were founding members or recent additions, each member of the SOSCP has much to contribute as it adds to the diversity and strength of this partnership. The next 15 years will have their challenges I am sure. One that I see already taking root is finding new and meaningful ways to keep the partners of the SOSCP engaged and willing participants in a time of fiscal restraint and reduced capacity.

My career in conservation started small, as a summer student looking for a job that would allow me to work outdoors and enjoy my Okanagan summer. Little did I know that I would be struck by the overwhelming magnetism of the Okanagan and the wonderful work being done by organizations such as The Nature Trust of BC (TNTBC). Almost 12 years have passed and I find myself gearing up to hire the next troop of summer students for the Conservation Youth Crew. This crew will work on TNTBC owned conservation properties in the Okanagan, including the newest addition to Antelope-brush Conservation Area. The first phase of this acquisition was underway when I started as a Conservation Youth Crew member, which for me makes this most recent addition that much more valuable. It has been an amazing experience to see the hard work and support from the community, various funders, and of-course the generosity of the Kennedy family, culminating in this conservation effort. It reinforces one of the core values of the SOSCP--partnership. I look forward to the future completion of this important land acquisition, knowing that habitats as rare and important as the Antelope-brush Conservation Area will be protected in perpetuity.

I would like to take this time to personally thank Bryn White for being such an inexhaustible force. Her leadership and knowledge is a great asset to me, and I am sure to other members of the SOSCP and community at large. I know it is not always easy balancing all sides while promoting a conservation ethic, but no one works harder than Bryn in fostering conservation for our Valley and Province. Thank you on behalf of the SOSCP and its partners.

Nick Burdock,

SOSCP Vice Chair  
Okanagan Conservation Land Coordinator, The Nature Trust of BC





# MESSAGE FROM THE PROGRAM MANAGER



SOSCP is celebrating 15 years in partnership for conservation. While much has changed on the landscape over this time, it is clear that our partners' commitment to protect biodiversity is unwavering.

This year has been a satisfying balance of advancing conservation collaboration, planning and policy with delivering tangible and meaningful habitat protection and restoration on the ground. When the “slow burn” of creating long term change is challenging and frustrating, leading some really positive and tangible conservation projects is necessary to feed your soul. For me, some of the most gratifying moments this year have come from the new partnerships that have solidified through creative restoration work and the immediate results of bringing some of our wetlands back from the brink.

It has been a pleasure this year to actively support our partners in their conservation efforts, provide a platform for coordinating conservation work, and increase the profile and support for conservation in the region. I have enjoyed collaborating with our partners in the north and central Okanagan on the Okanagan Region Biodiversity Strategy, Okanagan Wetland Conservation Strategy Leadership Team, and across the border with Washington State partners in a Working Group for Trans-boundary Wildlife Habitat Connectivity. It has also been equally rewarding as the Program Manager to lead core SOSCP projects such as the Biodiversity Conservation Strategy, Environmental Planning for Local and Regional Governments, Penticton Creek Restoration Committee (Chair) and the Local Conservation Fund.

This Program Report is a highlight of the program and partner accomplishments for the years 2013-2015.

Bryn White, SOSCP Program Manager



# ABOUT THE SOSCP



The South Okanagan Similkameen Conservation Program was founded in 2000 to protect the region's unique species and spaces. The South Okanagan and Similkameen region is Canada's only "pocket desert," and has the highest proportion of at-risk species in the country. The SOSCP is working to ensure that future generations can also know these species and spaces by bringing together multiple levels of government, First Nations, and non-governmental organizations. The role of the SOSCP is to coordinate and facilitate partner activities to improve the efficiency and effectiveness of conservation efforts. The vision of the SOSCP is to maintain "a healthy environment that sustains the diversity of indigenous plants and animals while enriching people's lives".

## The six broad strategic objectives that guide SOSCP activities are:

- Sustainable Land Use Planning,
- Securing Key Habitats,
- Enhancing Stewardship on Public and Private Lands,
- Expanding Community Involvement,
- Applying a Science-Based Approach, and
- Honouring Traditional Ecological Knowledge.

## Meet the SOSCP Executive

Vice Chair Nick Burdock, The Nature Trust of BC

Chair - vacant

Past Chair Barb Pryce, Nature Conservancy of Canada

Securement Team Chair, Carl MacNaughton, The Nature Trust of BC

Outreach, Ellen Simmons, Okanagan Similkameen Conservation Alliance

Traditional Ecological Knowledge, Chad Eneas, Michael Bezener, En'Owkin Centre

Sustainable Land Use, Lucy Reiss, Environment Canada

Stewardship, Alyson Skinner, Okanagan Similkameen Stewardship Program

Member at Large, Chris Bull, Okanagan Region Wildlife Heritage Fund Society

Member at Large, Lisa Scott, South Okanagan Naturalists' Club



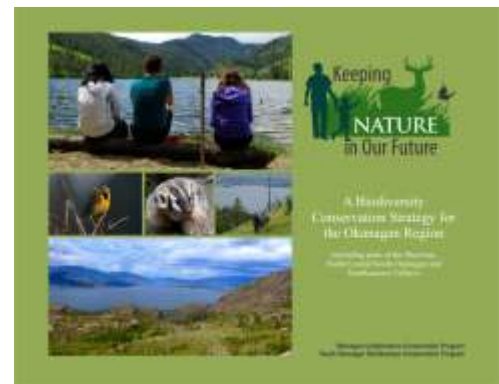


# PROMOTING ECOLOGICALLY SUSTAINABLE LAND-USE

*Sustainable land use planning is one of the six key pillars of the SOSCP, and is grounded in the idea that land use decisions, policies, and practices recognize the importance of ecological conservation. The SOSCP and partners work to provide decision-makers, planners, and developers with the tools and guidance needed to make sustainable planning choices.*

## **Keeping Nature in Our Future: A Regional Biodiversity Conservation Strategy**

The SOSCP and its sister initiative in the north and central Okanagan (Okanagan Collaborative Conservation Program or OCCP) have undertaken the development of biodiversity conservation strategies in each of their respective delivery areas. In addition, the conservation partnerships have also collaborated to develop an Okanagan Region strategy that integrates biodiversity analyses, key findings and strategic directions for the whole region. The entire package is entitled: Keeping Nature in Our Future Series and all of the volumes and products can be found on the Province of BC Ecological Reports Catalogue.



In 2014-2015, the focus of the Program Managers' work on the Biodiversity Conservation Strategy for the South Okanagan Similkameen has been to further develop the Implementation Strategy – including an Action Plan, as well as establish a Monitoring and Evaluation Framework.

After the Regional District of Okanagan Similkameen Board accepted the Biodiversity Conservation Strategy (BCS) in 2013, work began on a comprehensive review of a number of Official Community Plan Environmentally Sensitive Development Permit Areas (ESDPAs). SOSCP and RDOS staff worked together to evaluate the interaction of the new mapping with current ESDPA areas, with various land designations, as well as standardize guidelines, requirements and exemptions. The project also improved the draft Terms of Reference with which to administer the new ESDPAs and is working to increase supporting guidance to Qualified Environmental Professionals. SOSCP has also advanced integrating BCS data, decision support tools and strategic directions into land use decision making as requested by RDOS and other local government partners when development applications, environmental assessments and neighbourhood plans are submitted for review.

SOSCP is also working with the Ministry of Forests, Lands and Natural Resource Operations Ecosystems Section in the Thompson Okanagan Region to increase awareness and integrate consideration of the Okanagan Region BCS within a broad spectrum of provincial agencies while undertaking mid to long term planning, and while making statutory decisions on the land base. To that end, SOSCP has provided BCS spatial products for integration to the provincial database, and is developing corresponding guidance to accompany them.



# PROMOTING ECOLOGICALLY SUSTAINABLE LAND-USE



SOSCP is working with the OCCP to advance the objectives in the Biodiversity Conservation Strategy for the Okanagan Region and establish common and efficient ways to monitor and evaluate outcomes. The SOSCP and OCCP are each sharing the data and decision support tools from the region-wide strategy within their respective jurisdictions and have shared the mapping products on the Community Mapping Network and in the Great Northern Ecological Connectivity Data Atlas.

In 2014, SOSCP and OCCP were sponsors and delivered a joint presentation at the Okanagan Water & Biodiversity Forum hosted by the Okanagan Basin Water Board (OBWB) and the Okanagan Institute for Biodiversity, Resilience, and Ecosystem Services (BRAES) at UBC Okanagan. Addressing wildlife habitat connectivity throughout the Okanagan Region in collaboration with Dr. Parrott at UBC Okanagan; participating in the Washington Transboundary Wildlife Habitat Connectivity Working Group and Okanagan Basin Water Board Wetland Conservation Strategy Leadership Team are additional examples of where SOSCP and OCCP work closely on implementing the region-wide biodiversity strategy.

## Establishing a Local Conservation Fund

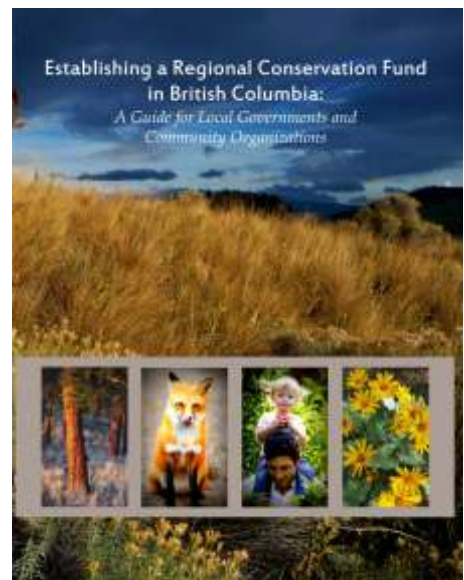
In 2014, SOSCP brought forward a proposal to the Regional District Okanagan Similkameen Board, to establish a Local Conservation Fund as part of a strategy to achieve objectives as laid out in the Biodiversity Conservation Strategy. The RDOS Board provided direction to staff to work with SOSCP to explore the establishment of a fund, and dedicated a budget line item for 2015 to assist with consulting with public and gauging support for the concept.

A conservation fund is a dedicated funding source established by a regional district or municipality to support environmental conservation. The fund provides local financial support for activities to protect valuable natural areas, as part of restoring and sustaining a healthy local environment. It focuses on projects that don't fall within the mandate of other levels of government.

A regional district or municipality has the legal authority to establish and operate a conservation fund as a service, just as with other services such as fire protection, water supply, recreation and waste management. The fund can be financed through a property tax, parcel tax, local area service tax or fees.

Successful examples are being drawn from the Columbia and Cowichan Valleys, Central Okanagan Regional District and now the Central Kootenay Regional District – just established in fall 2014. Each local government custom designs the conservation fund to address local priorities and dovetail with existing planning and decision-making.

The SOSCP proposal to the RDOS outlined some of the possible goals of a conservation fund that reflect many of the conservation priorities that emerged through public and stakeholder consultation for the Biodiversity







# PROMOTING ECOLOGICALLY SUSTAINABLE LAND-USE

Conservation Strategy in 2013 – including:

- Acquire, manage and protect natural areas of regional importance, including habitats for diverse fish and wildlife species, many of which are rare and at risk;
- Restore and protect watersheds, including lakes, watercourses and groundwater;
- Build on the network of regional parks and open spaces for people and wildlife;
- Support stewardship activities to restore and enhance damaged or disappearing ecosystems;
- Increase recreation and tourism opportunities;
- Protect special places that enhance local quality of life, and encourage people to explore the region's history and natural environment;
- Protect ecosystems and their services that support our economy and communities, such as water and food supply, clean air, flood protection, pollination, soil and landscape stability, and natural cooling.

SOSCP is looking forward to working with the RDOS, other interested local government partners, communities and stakeholders to discuss and refine a Conservation Fund proposal for the region during 2015.

## **Environmental Planning Support to Local Government**

The SOSCP continues to host the Local Government Environmental Planning Roundtable to engage planners on environmental protection policies and tools, as well as promote networking and strategizing for environmental capacity and resources. In 2014, the roundtable topics focused predominantly on the federal Species at Risk Act, as well as the identification and effective protection of Critical Habitat. Discussion also centered on wetland protection measures and an introduction to establishing a Regional Conservation Fund.

Local governments play a key role in habitat protection through regulations and stewardship; implementing green bylaws, zoning, permitting, covenants, as well as entering into stewardship agreements and providing protection and recovery for species on municipal lands. The roundtable is a good opportunity for local and senior government partners to interact, ask questions and hear what the SOSCP and partners are doing to support biodiversity conservation. There are 64 SARA listed species at risk in the South Okanagan; Critical Habitat must be identified (and subsequently protected) for roughly 40 of them. There are now a number of stewardship agreements being established between local and senior governments for protection of species at risk habitat.



*Alison Peatt, SOSCP Shared Environmental Planner*

The contracted Shared Environmental Planner position is an innovative approach to building capacity for environmental expertise. Funded by SOSCP local government partners RDOS, District of Summerland and supporters such as the Real Estate Foundation of BC and Habitat Stewardship Program, the Environmental Planner position shares time where needed, to provide environmental planning support, as well as technical and policy guidance to South Okanagan Similkameen local governments.



# PROMOTING ECOLOGICALLY SUSTAINABLE LAND-USE



Registered Professional Biologist Alison Peatt has been working as the Shared Environmental Planner for the past two years providing expertise that meets the needs and priorities of participating local governments.

## Technical and Policy Support for Implementation of the Biodiversity Strategy

Since the publication of the Biodiversity Conservation Strategy for the South Okanagan Similkameen, Alison has provided technical assistance for the implementation of the strategy. Some highlights include supporting local governments in using maps from the biodiversity to provide an integrated approach for identifying and protecting environmentally sensitive areas and sharing information on environmental values contained within a connectivity corridor for Bighorn Sheep, located on the East Side of Okanagan Lake.



The Biodiversity Conservation Strategy also highlighted some special areas that require a higher level of attention and planning. Spotted Lake is a sacred place to the Okanagan (Syilx) people. SOSCP has collaborated with the Regional District of Okanagan Similkameen (RDOS) to complete a report that summarizes available scientific (hydrological; ecological) information about the area around Spotted Lake. This report will be available to complement traditional knowledge of the Syilx people and to help contribute to the goal of enhanced protection of both cultural and environmental values in the area.

### Strengthen Bylaws for Environmental protection:

The Shared Environmental Planner provides direction to facilitate enhanced bylaws for environmental protection. In the past two years this work has included review and input on environmental values and sensitivities for RDOS Rural Area D2 plan (complete) and Rural Area D1 plan (underway). Work to update Environmentally Sensitive Development Permit Areas for Area A, C, D and E has utilized Conservation Rank maps from the Biodiversity Strategy as well as information on species at risk, federal critical habitat and Recovery plans.

### Review of Development Proposals

Another important function of the SOSCP Shared Environmental Planner is to provide local governments with assistance in considering environmental values affected by development proposals throughout the South Okanagan Similkameen. With streamlined regulatory approaches, most local governments no longer employ environmental planners to support review of development projects. This creates a significant challenge in the Okanagan where much of the area available for development is sensitive and supports dozens of Canadian species at risk. SOSCP has ensured that sensitive environmental values were considered in the review of several thousands of hectares of proposed developments throughout the region over the past several years.



# PROMOTING ECOLOGICALLY SUSTAINABLE LAND-USE

Important examples that have influenced development and facilitated enhanced protection of environmental values include:

- A proposed development in Trout Creek, Summerland includes an area considered to be valuable year-round habitat for Lewis's Woodpecker. After review by technical experts and advice by the shared planner and local government, the subdivision will be designed to protect the nest site and habitat for future use by woodpeckers.
- Review of the Wiltse Neighbourhood Plan to provide Penticton planners with information to strengthen protection for environmental values in the area.
- A proposed development in the Rattlesnake Mountain area in the District of Summerland includes valuable wetlands, grasslands and habitat for a variety of species at risk. The Shared Environmental Planner helped planning staff consider environmental requirements of the development proposal including reports received from qualified professionals and the development of a neighbourhood plan that includes protection of some sensitive sites.

## Support Protection of Riparian and Wetlands Habitats

The Shared Environmental Planner helped to highlight the value, and sensitivity of areas near water such as wetlands, lakes and streams. Key projects helping to address sensitive ecosystems near water include:

- Advice to local governments on riparian assessment reports and policy, while also facilitating additional training opportunities and information sharing with governments and technical experts.
- Working with local communities, the regional district, UBC Okanagan Campus and the Province, gather technical information and facilitate decision making relative to lake productivity challenges in the Chain Lakes and water diversion issues in Robinson and Naramata Creek.
- Support to the Okanagan Wetlands Strategy Technical Team. Lead by OBWB, BC Wildlife Federation and Central Okanagan, this initiative is designed to identify, map and protect/restore wetlands in the Okanagan, most of which have been lost to land use impacts like, roads, urban development, agriculture use and other factors.



# PROMOTING ECOLOGICALLY SUSTAINABLE LAND-USE



## Protection and Management of Local, Regional and Provincial Parks

The Shared Environmental Planner facilitated input by Summerland into the management plan for Trout Creek Ecological Reserve. The shared planner also facilitated information about environmental values and helped develop maps summarizing those values. This information supported the development of regional and local plans for Osoyoos, Princeton and Regional District Parks. Lastly, the Shared Environmental Planner collaborated on an information sign on sensitive riparian habitats and the at-risk short-rayed alkali aster, to address recreation and park management impacts in a regional park on Skaha Lake.

## Training and Development for Professionals Involved in Land Management

The Shared Environmental Planner is working with the Okanagan Similkameen Conservation Alliance and other partners to support improved training and materials related to sensitive aquatic and terrestrial areas. A professional development seminar for the South Okanagan Real Estate Board is planned for spring of 2015.



## Supported Protection of Species at Risk

The shared planner worked with the Regional District of Okanagan Similkameen Summerland District to ensure they had access to Critical Habitat mapping and received detailed comments on development proposals with implications for Critical Habitat and species at risk. This work required review of more than 80 development projects, identifying species at risk implications for more than 25% of these proposals.

The shared planner also collaborated with the province to negotiate two stewardship agreements with the District of Summerland to strengthen protection for Western Screech Owl and Rocky Mountain Ridged Mussel. These agreements are nearing completion and more are anticipated for the coming year.







# SECURING KEY HABITATS

*Since its inception, another key pillar of the SOSCP has been supporting the acquisition of key habitats, which includes purchases, covenants, or donations of private land, often in conjunction with enhanced protection of Crown lands. Securement activities often include restoration, care, and management of these important areas.*

## **Expansion of the Sage and Sparrow Conservation Area** (Nature Conservancy of Canada)

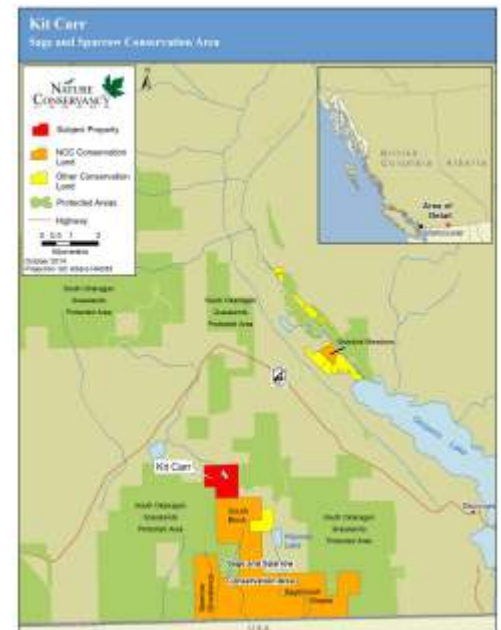
The Sage and Sparrow Conservation Area is a significant project in the south Okanagan Similkameen. The 1,390-hectare conservation area sits on the Canada-U.S. border near Osoyoos and protects part of an international swath of rare grassland habitat.

Sage and Sparrow is a crucial component of a migratory corridor for species moving north and south between the desert areas of the western United States and the dry grasslands of interior BC. The Conservation Area shares a significant portion of its border with the South Okanagan Grasslands Protected Area, forming an integral habitat link between protected areas that allows for the east-west movement of species between the Similkameen and Okanagan Valleys.

Since establishing the first components of Sage and Sparrow in 2012, the Nature Conservancy of Canada (NCC) has documented 52 species at risk on these lands including some species that have only one or two documented records in Canada.

In early 2015, NCC was pleased to announce the addition of another 130 hectare property to the Sage and Sparrow Conservation Area. Named after the property's original homesteader, Christopher (Kit) Donahue Carr, the Kit Carr property includes grasslands, dry forests, a four hectare lake, aspen forests and gullies. All of these ecological systems are under significant threat of development and conversion to agricultural systems in the south Okanagan Similkameen region. Kit Carr Lake is a rare and important feature in this region, providing critical habitat for waterfowl and at-risk species such as Great Basin Spadefoot, Western Painted Turtle and Tiger Salamander. Each of the Sage and Sparrow parcels bring distinct features to the overall conservation area, creating a world-class refuge for many rare and endangered grassland species.

Many groups and individuals supported this conservation initiative including the Government of Canada through the Natural Areas Conservation Program, the Habitat Conservation Trust Foundation, Sitka Foundation, Burrowing Owl Winery, South Okanagan Naturalists' Club, Okanagan Similkameen Parks Society and other private donors.



# SECURING KEY HABITATS



## Antelope Brush Conservation Area (The Nature Trust of BC)

In the spring of 2015, The Nature Trust of BC acquired 24 hectares, at the south end of Vaseux Lake, within its Antelope Brush Conservation Area. Combined with adjacent previously acquired conservation lands, this project protects important wildlife habitat and continuity within this endangered ecosystem. Most notably, this land supports more than half of the Canadian population of Behr's hairstreak butterfly. It is also home to more than 20 known species-at-risk, including Desert Night Snake and Lewis's Woodpecker. Securing this portion of land brought the Nature Trust of BC closer to completing the acquisition of this targeted conservation area, which will be the largest private holding of antelope-brush habitat in the province.

Good things happen with time, patience and collaboration. A group of dedicated project supporters enabled this acquisition to take place, including the Kennedy Family, Sitka Foundation, Habitat Conservation Trust Foundation, Habitat Stewardship Program, Province of British Columbia, Grayross Foundation, South Okanagan Naturalists' Club, Fortis BC, and many individual donors.

## Managing and Enhancing Similkameen Conservation Properties (Okanagan Region Wildlife Heritage Fund Society)

The 20 hectare Cold Creek Property, purchased in 1998 by the Okanagan Regional Wildlife Heritage Fund Society (ORWHFS), is located just west of Keremeos. The property includes Similkameen River frontage with black cottonwoods and it provides access to steep upland Crown lands which are habitat for Bighorn Sheep, goats, deer, rattlesnakes and many other species. The property includes not only a typical dry, rocky hillside dotted with sagebrush, cactus and pine trees, but also a spring-fed year-round creek. The ORWHFS successfully concluded agreements with Fortis and Telus for access through the Cold Creek property.

Ginty's Pond, named after Ginty Cawston, is a six hectare wetland located in Cawston. ORWHFS acquired it in 1990 for its riparian values and to protect public access. The property is co-managed with the Ministry of Environment. The Society wants to work on a management plan for Ginty's Pond with input from local residents who live alongside the cattail marsh. A public Information meeting was held to discuss the future management of the wetland.



Antelope-brush Conservation Area



South Okanagan Naturalists' Club members present a cheque to Nick Burdock of TNTBC to help purchase the new Antelope-brush Conservation Area Property





# ENHANCING STEWARDSHIP ON PRIVATE & PUBLIC LAND

*Another principle of the SOSCP is to promote stewardship activities in important areas, and to encourage landowners and land managers to protect biodiversity, enhance habitat for plants and wildlife, and to manage lands sustainably. This approach emphasizes cooperation, and is only possible thanks to the passion and drive of those who recognize the key role that stewardship plays in the broader conservation picture.*

## Landowner Outreach

(Okanagan Similkameen Stewardship Society)

Okanagan Similkameen Stewardship Society (OSS) was established to assist and support communities and land stewards in understanding and caring for the natural environment. A Wildlife Habitat Steward is a landowner who has entered into a voluntary landowner stewardship agreement outlining best management practices for a natural area on the property. In 2014 OSS had thirteen stewards in the South Okanagan-Similkameen and negotiated thirty new agreements in the region for a total of 960 hectares now covered under wildlife stewardship agreements.



As part of commitments to landowner stewards, OSS is very active in assisting landowners with clean-up and wildlife enhancement projects. Contract staff, volunteers and landowners removed 5165 kg of garbage from sensitive habitats, removed invasive plants from nine private properties and three community sites improving over 300 hectares. Native plant enhancement occurred at six sites including planting over two thousand native trees, shrubs, forbs and grasses.

Turtle nesting habitat was enhanced at one site, and bat boxes were installed on nine properties. In 2013 after several property owners reported endangered Tiger Salamanders trapped in their swimming pools, OSS promoted the use of “frog log” amphibian escape ramps. Nine “frog-logs” were successfully installed on three properties with in-ground swimming pools in priority areas in 2014. New land steward Summerland Golf and Country Club, discovering endangered Tiger Salamanders in one of their water hazards. OSS worked to re-naturalize an out-of-play area beside the pond and improve the salamander habitat by re-contoured one edge of the pond to create a marshy area. Native grasses, shrubs and pond lilies now provide cover for the salamanders while keeping things attractive for the golfers.

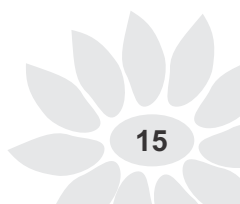
## Community Stewardship

(Okanagan Similkameen Stewardship Society)

Cormack Marsh Community Earth Day Celebration in Princeton engaged 150 landowners and residents in invasive plant removal, bird identification, wildlife residence creation, planting native species, trail building and interpretive sign installation. An Osoyoos pond



*Princeton youth celebrate Earth Day with March cleanup and planting*





# ENHANCING STEWARDSHIP ON PRIVATE & PUBLIC LAND



enhancement involved volunteers removing over 750 kilograms of debris, mostly metal remnants from an abandoned vehicle.

Summer students were active in communities throughout the Okanagan and Similkameen, getting the word out to landowners, the public and community groups. Between workshops, Farmer's Markets and community meetings, OSS representatives spoke with thousands of local residents on a variety of topics. With different themes and props, including live animals, the booths were informative and a great success. Sixteen events were held in nineteen communities.



*Volunteers work to naturalize and beautify Osoyoos Oxbows Important Bird Area Kiosk at Rd 22.*

## **Okanagan River Restoration Continues in Penticton** (Okanagan River Restoration Initiative)

According to Syilx Traditional Ecological Knowledge the Okanagan River in Penticton was once rich in fish including Steelhead, Coho, Sockeye and Chinook salmon. Due to channelization and other impacts, salmon spawning opportunities are now extremely limited in this section of the Okanagan River. As permanent fish passage is expected at Skaha Lake Dam by 2015, gravel augmentation in the Penticton channel has been identified as the highest river habitat priority among the broader goals of the Okanagan River Restoration Initiative (ORRI).

The 2014 ORRI project created two spawning platforms designed to provide high quality salmon spawning habitat. The raised spawning platforms, constructed between the Okanagan Lake Dam and the Highway 97 Bridge, are similar to those built during ORRI Phase I and 2 north of Oliver. The gravel size, water depth, water velocity and gradient in each platform are optimal for both Sockeye and Chinook spawning and egg incubation. Large rocks placed below one of the platform Number 1 provide refuge for Burbot, juvenile Steelhead, and Rainbow Trout.



*Construction of spawning gravel platforms in the Okanagan River in Penticton.*

The spawning platforms provide excellent public viewing opportunities of salmon spawning in October. The creation of the platforms also improves the health of the Penticton channel by reducing the abundance of invasive exotic species such as the Eurasian water milfoil.

The project involved the collaboration between First Nations, provincial and federal governments, local stakeholders and stewardship groups, as well as various funding agencies. The project has not affected the river bed stability or the flood protection capacity. Small adjustments to the existing dike were completed on both sides of the river near the platform Number 1. The success of this project will be measured by a multi-year effectiveness monitoring program, focusing on salmonids utilization of the new spawning structures and will guide future restoration.





# ENHANCING STEWARDSHIP ON PRIVATE & PUBLIC LAND

## **Penticton Creek Restoration Initiative**

(South Okanagan Similkameen Conservation Program)

The SOSCP assisted the City of Penticton to secure funds from the Habitat Conservation Trust Foundation (HCTF), Federal Recreational Fisheries Conservation Partnership Program, and TD Friends of the Environment Foundation to undertake a project to assess and develop restoration designs for Penticton Creek. Historically, Penticton Creek was an important producer of kokanee and rainbow trout for Okanagan Lake. Due to land development and flood control works in 1950, there have been major losses of fish populations, fish habitat, riparian and wetland areas. Restoring Penticton Creek was a recurring theme during the downtown Penticton planning process and now a Council-appointed Penticton Creek Restoration Committee (Chaired by SOSCP Program Manager and including the Okanagan Nation Alliance, Freshwater Fisheries Society of BC, Penticton Fly Fishers, Penticton Downtown Association, Penticton Indian Band) is overseeing the four year project, including the goal of completing a small showcase restoration on one part of Penticton Creek during 2015.



*Young Naturalist Aiden Skinner helps with Ellis Creek planting on TD Tree Days*

## **Ellis Creek Re-Planting**

(South Okanagan Similkameen Conservation Program, Okanagan Similkameen Stewardship Society)

In 2014 the SOSCP Program Manager continued to collaborate with partners and funders to enhance riparian habitat at the mouth of Ellis Creek. Friends of the Oxbows in Penticton, the Okanagan Similkameen Stewardship Society, Young Naturalists' Club, continued to enhance the riparian area in the basin. Due to the success of the previous year's planting the City of Penticton partnered with SOSCP to deliver an annual Penticton "TD Tree Days" event to continue the habitat restoration and volunteer effort. TD Bank staff, City of Penticton staff, and volunteers from the community came out to lend their hands toward the habitat restoration.

## **Conservation Crew Stewardship Projects**

(The Nature Trust of BC)

Conservation youth crews work on The Nature Trust of BC (TNTBC) owned and managed lands in the Okanagan. Their primary tasks include; invasive species management, installation of boundary and information signs, and boundary and range fence maintenance and repair. In 2014 the two-person crew conducted invasive plant management surveys and hand-treated 40 hectares of land around riparian and wetland habitats at the White Lake Basin Biodiversity Ranch, Okanagan Falls Biodiversity Ranch, and other conservation holdings throughout the South Okanagan. Where appropriate, the treatment sites were seeded with native dry-land grass seed.



*2014 The Nature Trust of BC Conservation Crew hard at work*



# ENHANCING STEWARDSHIP ON PRIVATE & PUBLIC LAND



The Crew also assisted with inventory and monitoring projects species at risk inventory, and BC Nightjar auditory surveys. Other highlights include completion of the White Lake Basin Biodiversity Ranch Management Plan and installation of approximately 4200 metres of livestock fencing at the White Lake Biodiversity Ranch for specie at risk protection. Additionally under Environment Canada's Habitat Stewardship Program for Riparian Fencing, 2500m of riparian fencing was installed at three sites and a solar-powered livestock water system was installed at another site.

## **Wildlife Habitat Improvement on Osoyoos Indian Reserve** (Nk'Mip Desert Cultural Centre)

The Osoyoos Indian Reserve provides habitat for a variety of species including six snakes considered at risk. At the south end of the reserve, high-quality natural habitat is bordered by roads and developed areas that are part of Nk'Mip Resort. Nk'Mip Desert Cultural Centre has coordinated a Western Rattlesnake and Great Basin Gophersnake research study for twelve years. Since a big threat to snakes is road mortality as well as development, effort has gone in to keeping snakes save with snake fencing and a snake relocation program. In 2014, 340 meters of snake fencing was replaced in sandy areas subject to erosion. Antelope-brush and sagebrush shrub cover which is ideal for snakes can grow on and over fencing, giving snakes an easy route over the fence. Re-routing, repair and plant removal near the fence will increase the integrity and effectiveness of the fence and reduce snake mortality and the need for snake relocation from human activity areas.



*Learning to identify and manage  
invasive plants in the field*

Consultants from the Okanagan and Similkameen Invasive Species Society helped develop an invasive plant management strategy for the Nk'Mip Resort area. Two maintenance managers and a summer youth crew were trained in invasive plant identification, harvest methods, and insect bio-controls. The summer students worked on weed removal at community sites throughout the reserve while field managers worked in key habitat areas along Rancher Creek. Native grass seeds mix, shrubs and forbs were planted to restore degraded areas and improve habitat for a host of Antelope-brush dependent species.

## **The Okanagan Wetlands Strategy** (Okanagan Basin Water Board)

The Okanagan Wetlands Strategy is a three-phase effort to re-establish wetland ecosystems. With funding from Environment Canada, Jillian Tamblyn is the Okanagan Basin Water Board's Wetlands Strategy Project Manager. Phase 1 focused on outreach, data collection, prioritization, and mapping. The project summarized existing wetland information from throughout the three regional districts of the Okanagan region.



# ENHANCING STEWARDSHIP ON PRIVATE & PUBLIC LAND

Phase 2 which started in September 2014, will continue until 2016 and will focus on establishing long-term wetland data management and sharing in the Okanagan region; working on multiple on-the-ground wetlands projects and looking at policies to support wetland protection. So far the Okanagan Basin Water Board has used funding from the National Wetlands Conservation Fund to work with partners to fence three wetlands that were being impacted by off-road vehicles and cattle. Stink Lake in the South Okanagan Grasslands Protected Area, was fenced while allowing for access for cattle from three ranges. McLachlan Lake in the Garnet Valley near Peachland was completely fenced to exclude cattle and off-road vehicles. Near Summerland, the fence was extended around additional wet areas at Ritchie Lake due heavy off-road vehicle and cattle use. Funding was also used to look at the hydrology of the Osoyoos Oxbows. Great Basin Spadefoots and Blotched Tiger Salamanders are a few of many species expected to benefit from this work.



*Volunteers help to build a fence to exclude cattle and off-road vehicle damage, and restore McLachlan Lake*

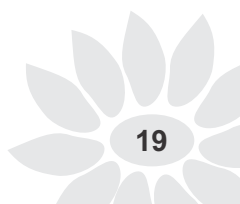
Volunteers have helped out on several of these projects including individuals and members of Summerland Sportsmen's Association and Summerland Environmental Science Groups. Partners on the projects also include Okanagan Nation Alliance, the Province of BC, SOSCP, BC Wildlife Federation, Ducks Unlimited and Regional District of Central Okanagan. Additional Okanagan Basin Water Board partners include the Regional Districts of North Okanagan and Okanagan-Similkameen, Okanagan Collaborative Conservation Program, Okanagan Similkameen Stewardship Society, UBC Okanagan, and many others.

## **Protection of Garnet Valley Wildlife Habitat**

(SOSCP, Summerland Sportsmen's Association, Province of BC)

In the 1980's the Province of BC had the foresight to purchase a number of properties in Garnet Valley just north of Summerland to augment existing crown lands and conserve some of the Okanagan's highest quality ungulate winter range. The area, known as "Antler's Saddle" is low elevation and highly suitable winter and early spring ranges for mule deer. The valley and hillside also supports sensitive grasslands, wetlands and open forest ecosystems – habitat for other wildlife species, some of which are federally listed as "at risk". The area is overseen by the Province of BC through the Ministry of Forests, Lands and Natural Resource Operations. At the heart of these conservation lands is Ritchie Lake, a wetland that had been significantly impacted by cattle and off road vehicle "mudbogging" damage. Ritchie Lake was a source of drinking water for wildlife, a rare commodity in the dry South Okanagan landscape.

In 2012, a wildlife-friendly range fence was built around Ritchie Lake with funds from the HCTF Public Conservation Assistance Fund and volunteers from the Summerland Sportsmen's Association worked alongside the Conservation Officer Service and SOSCP. The fence would exclude cattle and off-road vehicles, while allowing the wetland to heal. The recovery of Ritchie Lake was such a success, that some of the same volunteers helped





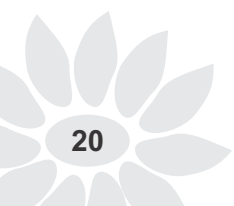
# ENHANCING STEWARDSHIP ON PRIVATE & PUBLIC LAND

to fence a second wetland in Garnet Valley called McLachlan Lake in fall of 2014 with the help of funding from the OBWB.

At the same time, the SOSCP Program Manager was able to support the BC Ministries of Environment and Forests, Lands and Natural Resource Operations in efforts to implement new motorized vehicle restrictions under the Wildlife Act to further protect important ungulate winter range in Garnet Valley. Partnering with the provincial agencies, and the local Summerland Sportsmen's Association, SOSCP assisted with extension and outreach of the new regulations, and design/installation of signage for open and closed routes with additional funding provided from the Habitat Conservation Trust Foundation Public Conservation Assistance Fund, and Province of BC.



*Information sign for motorized vehicle closure in Garnet Valley*





# EXPANDING COMMUNITY INVOLVEMENT THROUGH OUTREACH & EDUCATION



*Getting community members involved in conservation and excited about nature has always been recognized as a key driver of the SOSCP and its partners. This includes a variety of activities such as professional development sessions, workshops, school programs, festivals, and outdoor seminars that help to foster a love and understanding of nature and the outdoors in the young and the young at heart.*

## **Outreach to Off-road Vehicle Users**

Recreational “off-roading” has expanded in the Okanagan and throughout British Columbia leading the province to enact new legislation to manage off-road vehicle (ORV) activity and the Ministry of Forests, Lands and Natural Resource Operations to step up its public education efforts. The Ministry partnered with the Okanagan Similkameen Conservation Alliance to organized two information meetings to discuss the impacts of off-road vehicles on sensitive ecosystems on Oliver Mountain and the Osoyoos West Bench. The Osoyoos and Oliver meetings were well-attended by both ORV users and non-riders and a lively question and answer session followed a presentation by Ministry staff.

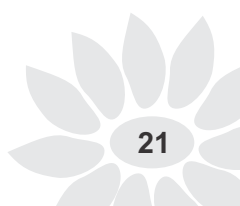


*Off-road vehicle damage at Oliver Mountain*

Off-road vehicle users were asked to help protect valuable wildlife habitat by either riding at an alternate site, or staying out of sensitive areas such as grasslands, wetlands and seasonally flooded areas. The long-term goal is to protect sensitive and important ecosystems in the Oliver Mountain and Osoyoos West Bench areas, while increasing knowledge of best practices and in some cases, encouraging riders to continue enjoying their sport at other sites. Oliver Mountain was recommended as a protected area in the 2001 Okanagan Shuswap Land and Resource Management Plan because of the valuable habitats found here. Illegal trails at Oliver Mountain have caused erosion, damage to wildlife habitat and the spread of invasive plants. ORV users were encouraged to use two other established ORV recreation area near Kelowna and Okanagan Falls, and to consider a proposed new recreation site near Sawmill Lake near Oliver.

## **Osoyoos Desert Society**

The Osoyoos Desert Society mission is to conserve and restore the antelope-brush ecosystem in the South Okanagan. In 2014, the society continued its stewardship of 27 hectares of antelope-brush habitat at the Osoyoos Desert Centre. A series of Restoration Work Parties were held at the site to plant native species and remove non-native





# EXPANDING COMMUNITY INVOLVEMENT THROUGH OUTREACH & EDUCATION

invasives like knapweed. This past year, the Desert Centre once again welcomed nearly 10,000 visitors to experience the local desert environment. At the Centre visitors enjoy guided and self-guided tours, hands-on exhibits, interpretive signage, and a native plant demonstration garden. The Desert Society hosted its popular Winter Program Series at the Watermark Resort in Osoyoos. Topics ranged from wildlife-related programs on wolves, Snowy Owls and Honey Bees, to conservation issues including climate change and the impact of plastic waste.

In October 2014 the Society partnered with the RBC Blue Water Project and the Town of Osoyoos to create a xersicape garden next to Town Hall Square in Osoyoos. The garden, designed to conserve water and promote water-wise landscaping, features a variety of native and drought-tolerant plants. The garden project also includes an informational sign highlighting the benefits of native landscaping.

## **South Okanagan Naturalists' Sponsor Children's Club**

With the help of a grant from BC Nature, the South Okanagan Naturalists' Club (SONC) established a south Okanagan chapter of the Young Naturalists' Club. Explorer Days are held once a month for children aged 3-8 and are active outdoor programs on a wide variety of themes. Alyson Skinner and Paula Rodriguez de la Vega coordinate the club and plan the field trip themes with help from local naturalists.

SONC members have been active with on-the-ground volunteer efforts, including assisting with maintenance of the Road 22 interpretive kiosk, volunteering as a clean-up party after the Challenge Triathlon, maintaining the Penticton Okanagan College native habitat garden and leading tours during the Meadowlark Nature Festival.



*Young naturalist Cora Skinner enjoys a day out planting at Ellis Creek*



# EXPANDING COMMUNITY INVOLVEMENT THROUGH OUTREACH & EDUCATION



## Got Bats?

The Okanagan Community Bat Program is a new initiative to support bat conservation in the region by providing information about bats and getting the public's assistance with locating and monitoring bat populations. The region is noted for having at least thirteen species of bats residing here in summer with the Canyon Bat as a possible new species. A web site and toll free phone number allowed residents to get information on attracting bats and learn about options for dealing with bats in buildings. The Okanagan is one of nine regions in the province operating the "Got Bats?" outreach program through the assistance of the Habitat Conservation Trust Foundation and BC Conservation Foundation.



## New interpretive Signage at Road 22

Lead by BC Nature, the Important Bird Areas program and conservation partners who own land in the area, an interpretive display kiosk located on Road 22 received an "extreme makeover". The area is popular with birders, walkers and bicyclists and is an ideal spot to highlighting the importance of the Osoyoos Oxbows and nearby Haynes Lease Ecological Reserve. The new signs were produced with support from Environment Canada, the Nature Conservancy of Canada, Ducks Unlimited, with in-kind support from the Province of BC, The Nature Trust of British Columbia and numerous other organizations and individuals, including Doug Brown, the volunteer IBA Caretaker.

In spring of 2014, the SOSCP Program Manager led an initiative with Province of BC, and the Okanagan Similkameen Stewardship Society, and Naturalists' Clubs to further augment the beautiful new interpretive signs at the Osoyoos Oxbows Important Bird Area Rd 22 Kiosk. The Rd 22 pullout and area surrounding the kiosk, needed some care and upkeep so with some local donations and volunteer elbow grease, a complete facelift was undertaken with crushed gravel walkway and native plants. Thanks to BC Nature, Black Hills Estate Winery, Cottages on Osoyoos Lake, Ducks Unlimited Canada, Osoyoos Aggregates, RDOS, Rotary Club of Oliver, South Okanagan and Oliver Osoyoos Naturalists' Clubs and the Town of Osoyoos for financial and in-kind contributions.



*BC Nature IBA program and partners unveil new interpretive signs at Road 22*







# APPLYING A SCIENCE-BASED APPROACH

*A further pillar of the SOSCP is its commitment to ensuring that it uses a science-based approach to guide actions and decision making, and to promote and facilitate further scientific research where needed for species and ecosystems at risk in the Okanagan Similkameen.*

## The BRAES Institute

The Okanagan Institute for Biodiversity, Resilience, and Ecosystem Services (BRAES) is a consortium of UBC Okanagan faculty members, students, collaborators, and partner organizations working together to advance research and teaching in conservation and ecology. BRAES endeavours to increase scientific understanding of ecological systems, from the genetic level to landscape scales, and to inform management and planning decisions that promote environmental sustainability.



BRAES Director Dr. Lael Parrott leads the Complex Environmental Systems Laboratory at UBC Okanagan, a multidisciplinary research program in modelling regional landscapes and ecosystems as complex systems. Practical applications of her research involve environmental management, conservation and monitoring as well as future scenarios analysis.

## Planning for Ecological Connectivity in the Regional District of Central Okanagan

Dr. Parrott is collaborating on a new project using the Okanagan Basin as a case study to explore relationships between landscape scale connectivity, ecosystem services provisioning and ecological resilience. Part of a broader research effort carried out by members of the Complex Environmental systems Lab, Parrott and a student will be using models and spatial analysis tools to develop maps of ecosystem services based on current land use. Overlaying these maps with habitat corridors will help to identify parcels that, if conserved or restored as part of the land use planning process, would provide multiple benefits for biodiversity and ecosystem services provisioning.



## Citizen Science Surveys

WildResearch's BC Nightjar Survey is a citizen science program that conducts nocturnal roadside surveys for the Common Nighthawk and the Common Poorwill, two highly understudied species of conservation concern. Both species belong to the nightjar family, a group of migratory birds that forage for flying insects at night. Steep population declines of aerial insectivore species have been detected across North America. Both species are understudied because their nocturnal habits exclude them from detection during other bird surveys. The Common Nighthawk has been federally listed as Threatened under Canada's Species at Risk Act due to these perceived declines. The Common



# APPLYING A SCIENCE-BASED APPROACH



Poorwill has been assessed as data deficient by the Committee on the Status of Endangered Species in Canada because sufficient surveys have not been completed.

Citizen science surveys are an ideal way to study nightjars and contribute to their conservation because they can efficiently collect reliable data over a large geographic extent. Survey results show that the Common Nighthawks appear to be evenly scattered across the southern Okanagan while the Common Poorwill are particularly concentrated around the White Lake area. This ongoing program will study distribution and populations trends across the province.

Okanagan Similkameen Stewardship conducted American Bullfrog outreach and inventory in Penticton and Summerland in 2014. This invasive amphibian is native to eastern North America and occurs in a few wetland pockets in British Columbia where it preys on native fish and amphibians. A bullfrog eradication program is thought to have successfully eradicated this species from the south Okanagan but recent reports of bullfrogs needed follow up. The project involved contacting residents living adjacent to permanent ponds, hosting an identification and citizen science workshop and conducting active searches and auditory surveys of all identified permanent wetlands in the project area. No bullfrogs were found!

## Rare species inventories

Behr's Hairstreaks and Half-Moon Hairstreaks were surveyed in 2014. No new areas were found but some local area extensions were detected. Five Wildlife Habitat Areas will be proposed. Sonora Skipper butterflies were surveyed in 2013 and 2014 with a small number of new locations found. Nuttall's Buckmoth was surveyed for a new COSEWIC status report but none were detected.

Surveys of rare plants were ongoing in 2013 and 2014. Several new locations for Grand Coulee owl-clover, branched phacelia and annual paintbrush were located and a large number of cushion fleabane were found. Several rare and endangered plants that depend on beach environments were inventoried with a few new locations found.

Tiger Salamanders were monitored at White Lake in 2013. A large number of young were produced after many years of drought conditions that reduced reproduction. Environmental DNA (eDNA) was tested in 2014 as a method of monitoring aquatic species such as Great Basin Spadefoot and Tiger Salamanders. Results are pending.

A master's student is researching Lewis's Woodpecker nest tree re-use and productivity in different habitats. Lewis's Woodpeckers were inventoried and monitored in 2014. Seven new wildlife habitat areas will be proposed based on the survey results.



*Behr's Hairstreak*





# APPLYING A SCIENCE-BASED APPROACH

## **Does Habitat Restoration Help Riparian Songbirds?** (Simon Fraser University)

In western North America, most riparian habitats have been destroyed or degraded as a result of human settlement and urban development so habitat restoration of these ecosystems is an ongoing effort. Simon Fraser University student Timothy Forrester examined the abundance, richness and breeding performance of riparian birds in response to restoration of remnant riparian habitat within the south Okanagan Valley at six sites located between Penticton and Osoyoos. His study shows that restoration has increased the abundance of Yellow-breasted Chats, the target of management activities, but did not have a detectable effect on the abundance of other songbirds. Habitat characteristics such as shrub cover and foliage height of the nest patch influenced the breeding performance of the chats. These results provide evidence that limiting grazing is beneficial to some shrub-nesting songbirds. The information will guide continuing restoration efforts to re-establish an abundant and productive population of this endangered songbird in the Okanagan.



*Yellow-breasted Chat nestlings*

## **Western Rattlesnake Research on Osoyoos Indian Reserve** (Nk'Mip Desert Cultural Centre, Thompson Rivers University, Environment Canada)

The Nk'Mip Desert Cultural Centre snake research program is located on the Osoyoos Indian Reserve on lands adjacent to both high-quality snake habitat and high-density resort development. Since 2003 the cultural centre has hosted a mark-recapture and snake telemetry study to provide information on local Western Rattlesnake and Great Basin Gophersnake populations, the impacts of nearby development, and management strategies to reduce threats to these reptile species. The main threats to the Western Rattlesnake and Great Basin Gophersnake are habitat loss, fragmentation and road mortality.



*Emily Lomas with Great Basin Gophersnake*

Thompson Rivers University student Emily Lomas completed a study of the indirect effects of human disturbances on Western Rattlesnakes living on or near the Nk'Mip Resort development. Radio-telemetry and mark-recapture methods were used to track individual snakes and assess the health, behaviour, and movement of rattlesnakes living near development as well as snakes living well away from developed areas. Individuals in highly disturbed landscapes had lower body condition than snakes in other areas, and lost body weight over the foraging season. Snakes in disturbed sites tended to have smaller core areas, shorter range lengths, and took a greater number of days to travel a given distance than snakes in less-disturbed habitat. No major differences were observed in snake behaviour, exposure risk, or other spatial ecology parameters among habitats under different disturbance pressures. The findings contribute to our understanding of how wildlife may be impacted in discrete ways within disturbed habitat, and highlight the importance of using multiple indicators to assess stability of animal populations.

# APPLYING A SCIENCE-BASED APPROACH



## **Burrowing Owl Reintroduction Program** (Burrowing Owl Conservation Society of BC)

The Burrowing Owl Reintroduction Program opened a breeding facility north of Oliver in 2011, and since then has been releasing breeding pairs into protected release site west of Osoyoos. East Chopaka is a new Burrowing Owl site located on BC Parks land where twenty-four new burrows were dug in the fall of 2013. BC Parks and Conservation Society staff will be monitoring the effect of the owls on the native grasslands and local species. Owl pellets are being analyzed by BC Parks staff to determine the owl's impact on native rodents.

East Chopaka is higher in elevation and very near to the Badger Flats site on the Nature Conservancy of Canada's Sage and Sparrow Conservation Area. The South Okanagan population is becoming well established with four returning birds and one over-wintering bird in 2014. The Burrowing Owl Conservation Society is pleased to continue the partnership with the Nature Conservancy of Canada (NCC) and look into the possibility of expanding owl release site in the Conservation Area.



Lauren Meads is the coordinator for south Okanagan Burrowing Owl Society activities. Meads organized the field activities, manages the operation of the Oliver Breeding Facility as well as an active education and extension program. Burrowing Owls are born to captive-breed pairs at the facility in Oliver which is shared with the South Okanagan Rehabilitation Centre for Owls (SORCO). With the lease in peril, Jim Wyse and Burrowing Owl Estate Winery stepped in and paid it off, allowing the land to be equally managed by the Burrowing Owl Society and SORCO. This is a great partnership between two non-profit societies working to protect BC's bird of prey population.

In 2014, the Burrowing Owl reintroduction project was funded by the federal Habitat Stewardship Program, BC Gaming Grants, Wildlife Preservation Canada and TD Environment. The Society has benefited from the corporate sponsorship of Burrowing Owl Estate Winery and the Wyse family who have made a considerable financial and philosophical commitment to the reintroduction program.





# APPLYING TRADITIONAL ECOLOGICAL KNOWLEDGE

*The En'owkin Centre continues its work to recover, revitalize and perpetuate Syilx Traditional Ecological Knowledge (TEK) so it can be applied throughout traditional Syilx territory. Several vital projects in the SOSCP area are incorporating Syilx TEK perspectives, priorities and practices with involvement from En'owkin Centre staff and research partners.*

## **Facilitating and Strengthening Partnerships**

En'owkin staff continue to facilitate the Enowkixwixw dialogue workshops and in the past year assisted the Community to Community Protocol, worked with Community Chief and Councils, and the David Suzuki Foundation. The En'owkin Centre has also worked on an enhanced framework for the inclusion of TEK in planning, analyzing and implementation of indigenous methods and practices utilizing place based knowledge. The process includes Syilx Initial enquiry, TEK Scoping, Assessment, and Conclusion/Actualization. En'owkin provided support to the PIB with their land use planning, giving preliminary recommendations for protected areas of cultural and environmental significance in the PIB Community.



*Removal of shingle Creek Dam will allow salmonids to access spawning habitat in Shingle Creek and Shatford Creek.*

En'owkin collaborated with the Regional District Okanagan-Similkameen and the Penticton Indian Band to build partnerships and to open a dialogue about incorporating Indigenous Aboriginal perspectives and priorities into regional conservation projects. They also worked to build relationships between Okanagan bands and BC Parks to identify potential areas of cooperation and collaboration related to protected areas management and protected areas planning in the Okanagan region. The Okanagan Nation Alliance (ONA) and the TEK subcommittee of the Committee on the Status of Endangered Wildlife in Canada continue to gather TEK from local knowledge keepers to support recovery programs for Grizzly Bear, Mountain Caribou, Chinook Salmon, Rocky Mountain Ridged Mussel, Western Painted Turtle and White Sturgeon.

In collaboration with the ONA Fisheries Department, En'owkin assisted to restore riparian habitat after the removal of Shingle Creek Dam on Penticton Indian Band land. This project, combined with the restored fish passage over Okanagan Falls in Skaha Lake, will allow salmon and trout to access up to 37 kilometers of spawning habitat in Shingle Creek and Shatford Creek for the first time in over 60 years. The Centre also hosts the ONA Fisheries Department and several hundred K-12 learners and community members during the annual Salmon Fry Release Ceremony in May, and the Annual Salmon Feast in Okanagan Falls in September.

The Centre has launched their Indigenous Knowledge Climate Change Web Portal. The online forum and blog discusses Indigenous perspectives on Climate Change and provides links to topical articles and other websites.



# APPLYING TRADITIONAL ECOLOGICAL KNOWLEDGE



## Protecting Riparian Habitat Through the Locatee Lands Project

The En'owkin Centre, federal government and Penticton Indian Band continue to provide support for the protection of lowland riparian habitats in the Penticton area through the Locatee Lands Project. The En'owkin Centre contributes to the Locatee Lands Project Endowment Fund, which will allow the centre to provide long-term protection of cultural and environmental values on Certificate of Possession lands under threat of development in partnership with willing locatee landowners. Federal funds have supported improvements to the ECommunity Place and En'owkin Centre infrastructure to help protect and advance appropriate use of the sites as visitor numbers increase.

Improvements include installation of portable washrooms, a walking bridge and an observation platform to protect fragile riparian and wetland habitats. Funding has also supported the creation of a greenhouse and indigenous plant nursery to facilitate the restoration of habitats of cultural significance to the Syilx people.



*Fish-free amphibian breeding pond.*

A number of multi-year species at risk recovery planning and implementation projects continue at the ECommunity Place Locatee Land site. Completed and ongoing projects that integrate both TEK and western science aspects include:

Controlled Riparian Flooding Feasibility Study to determine the feasibility of restoring natural floodplain function.

- 10-year Species At Risk Management Plan.
- At-risk bat population and habitat assessment.
- Butterfly population surveys for Behr's Hairstreak and Monarch.
- Creation of fish-free amphibian breeding ponds and amphibian and reptile population monitoring using a variety of assessment techniques including TEK assessments, auditory surveys, floating minnow trap and dip-net surveys and cover object array surveys.
- Riparian habitat restoration and enhancement work for the Yellow-breasted Chat with increased in territory occupancy from 6 territories in 2008 to 13 in 2014; and increase in total number of chat fledglings from 11 in 2008 to 29 in 2014.
- Incorporation of indigenous land management methods such as semi-annual traditional burning to enhance riparian wild rose shrublands and black cottonwood forests.
- Syilx native Blue Elderberry (Cyi<sup>w</sup>t<sup>w</sup>) Permaculture Project feasibility study.
- Western Screech-Owl nest box installation, maintenance and monitoring.
- GIS mapping and database development to support long-term conservation and recovery of species at risk and species of cultural significance.
- Riparian fencing to exclude feral horses from sensitive riparian areas and wetlands.
- Invasive plant management as part of lowland riparian habitat restoration efforts.
- Partnered with Environment Canada and Simon Fraser University researchers to determine the migration routes and overwintering sites of riparian birds by deploying and recovering geolocator "backpacks" on Yellow-breasted Chat, Gray Catbird and Veery.





# APPLYING TRADITIONAL ECOLOGICAL KNOWLEDGE

## Involving Students in Land-based Learning

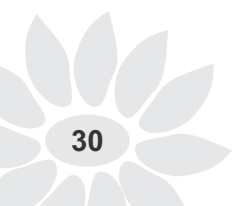
In 2014, En'owkin Centre launched their Syilx Indigenous Land-based Learning Program, in partnership with School District 67, Outma Sqil'xw Cultural School and other public and band-operated schools. The Program provides opportunities for K-12 students to participate in Syilx TEK projects and learning activities at the ECommunity Place (also known as Locatee Lands), En'owkin Centre and other locations of significance within the region. This past year, the program hosted outdoor and indoor learning experiences and community events for more than 1400 students, representing 93 class visits. Twenty-four schools participated from three school districts and four different Indian Bands. Many students were able to participate in more than one visit to deepen their overall cultural learning experience and level of understanding.



Oliver Elementary School students and SFU researcher, Tim Forrester, with Yellow-Breasted Chat to be equipped with a geolocator.



*Aboriginal Education students planting indigenous plants at ECommunity Place Locatee Lands in the Syilx Indigenous Land-Based Learning Program.*

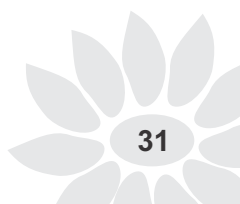


# SOUTH OKANAGAN SIMILKAMEEN CONSERVATION PROGRAM PARTNERS



BC Conservation Foundation  
BC Lake Stewardship Society  
BC Ministry of Forests, Lands and Natural  
Resource Operations  
BC Ministry of Agriculture  
BC Ministry of Environment  
BC Nature  
BC Wildlife Federation  
BC Wildlife Federation – Okanagan Region  
Burrowing Owl Conservation Society of BC  
Canadian Parks and Wilderness Society – BC  
Chapter  
Canadian Intermountain Joint Venture  
City of Penticton  
Conservation Northwest  
Department of Fisheries and Oceans Canada  
Destination Osoyoos  
District of Summerland  
Dominion Radio Astrophysical Observatory  
Ducks Unlimited Canada  
En'Owkin Centre  
Environment Canada – Canadian Wildlife  
Service Pacific Yukon Region  
Federation of BC Naturalists  
Friends of the Oxbows  
Green Earth Movement (GEM) Penticton High  
School  
Grasslands Conservation Council of BC

Habitat Conservation Trust Foundation  
The Land Trust Alliance of BC  
The Nature Conservancy of Canada – BC Region  
The Nature Conservancy of Washington  
The Nature Trust of BC  
Town of Osoyoos  
Town of Oliver  
Okanagan Collaborative Conservation Program  
Okanagan College  
Okanagan Region Wildlife Heritage Fund Society  
Okanagan Similkameen Conservation Alliance  
Okanagan Similkameen Parks Society  
Okanagan Similkameen Stewardship Society  
Osoyoos Desert Society  
Osoyoos Indian Band  
Osoyoos Lake Water Quality Society  
Pacific Salmon Foundation  
Partners in Flight  
Penticton Museum and Archives  
Regional District of Okanagan Similkameen  
Royal BC Museum  
Southern Interior Bluebird Trail Society  
South Okanagan Rehabilitation Centre for Owls  
South Okanagan Naturalists Club  
University of British Columbia Okanagan  
Village of Keremeos  
WA Dept. of Fish and Wildlife





## Support SOSCP

If you, or your organization, would like to support the important work of this collaborative partnership to “Keep Nature In Our Future” contact Program Manager Bryn White. Tax receipts are available.

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**Conserving Canada’s Desert Country**

