

Estuaries and wetlands comprise less than 3% of BC Coastline while providing habitat to over 80% of all coastal fish and wildlife species.

WEST COAST REGION

Ecological Significance

The Vancouver Island West Coast Region contains some of the most diverse and rarest ecosystems in British Columbia and support internationally significant populations of fish and wildlife as well as some of the rarest species found in the Province.

Estuaries, wetlands and riparian areas are among the most diverse and productive ecosystems in the world. The importance of protecting and managing these habitats cannot be understated given their substantial life history functions and benefits not only to fish and wildlife but to the human population as well (e.g. clean water supplies, flood protection, mitigating impacts from climate change). It is estimated that more than 50% of wildlife species in North America rely on access to wetland habitat for at least part of their life-cycles, and almost 35% of all rare, threatened, and endangered wildlife species are dependent on wetland ecosystems (Wetland Action Plan for British Columbia, 2010).



In British Columbia, estuaries and coastal wetlands comprise less than 3% of BC's coastline, while providing habitat to over 80% of all coastal fish and wildlife species. Approximately 500 species of named plants and animals are associated with wetlands and estuaries, and 70 of those species are federally listed as endangered or threatened. Vancouver Island and the Central contain significantly higher ranked estuaries than any other eco-region in the province (CWS Technical Report Series #476, 2007). Of the 8 Class 1 estuaries in BC, 4 are located on Vancouver Island.

Key Property Complexes

Baynes Sound	Buttertubs Marsh
Cluxewe Estuary	Cowichan Estuary
Dudley Marsh	Filberg Marsh
Kingcome Estuary	Lazo Marsh
Nanaimo Estuary	Orel Lake
Englishman River (PQWMA)	Salmon River Elk Reserve
Salmon River Estuary	Simpson Farm
Somenos Marsh	Thetis Island
Willow Creek	

Despite their importance and rarity, approximately 43% of the province's estuaries are threatened by coastal development, modification, and pollution; approximately 60% of marsh habitats along the estuaries of the Salish Sea have been lost.

Since 1976, The Nature Trust of BC and the Province of British Columbia has worked together with several partner agencies to secure these critical habitats on Vancouver Island and the Central Coast. From the Cowichan Estuary to the Kingcome Estuary more than 60 conservation properties have been secured protecting over 11,000ha of critical fish and wildlife habitat along with rare ecosystems.

West Coast Region Program Summary 2014-2015

HCTF O&M Funding allocated \$132,000 to the West Coast Region in 2014-15 to support projects focusing on the development & implementation of site specific management/restoration plans; ongoing fish and wildlife inventory; recreational infrastructure (trails, interpretive signs); and the on-going engagement of community groups. In addition to HCTF, partner agencies contributed over \$150,000 to support this work.





Over \$130,000 was invested in the West Coast Region for the 2014/15 fiscal year that greatly assisted the conservation partners in achieving several key land management objectives. Of this funding:

- **\$15,000** was invested in projects focusing on the critical habitat of the Quatse Wildlife Management Area in Port Hardy. Projects included the construction of a new interpretive kiosk and signs; installation of boundary/regulatory signage; liaison with District of Port Hardy on an estuary restoration project; investigation into substantial trespass/encroachment within WMA boundary.
- **\$9,800** was invested at the Salmon River Conservation Area in Sayward. Projects included working with the Village of Sayward to replace the Kelley Trail bridge; construction of new interpretive kiosks and signage; maintaining trails and infrastructure; inventory for rare and endangered species; invasive species control.
- **\$14,500** was invested at the Nanaimo River Estuary Conservation Area. Projects included: completing a strategic review with the Estuary Management Committee partners (Nanaimo First Nation, Nanaimo Port Authority, City of Nanaimo, Log Storage Association, VIU); installation of interpretive kiosk and signs; rebuild of Holden creek trail access and viewing area; on going species-at-risk restoration plan implementation; invasive species management; riparian restoration works.
- **\$3,500** was invested at the Green Mountain Wildlife Management Area to continue the implementation of the "South Scree Slope Habitat Restoration Project" with the Nanaimo Fish and Game Club, Marmot Recovery Foundation and FLNRO. Specific activities included a controlled burn of encroaching vegetation; installation of area signage; further clearing of alpine meadows.
- **\$14,700** was invested at the Parksville Qualicum Beach Wildlife Management Area. Projects included: trail and facility maintenance; restoration plan review and development with community partners for the Englishman and Little Qualicum estuaries; updated boundary/regulatory signage; coordination of annual migratory bird closures with Conservation Officer Service and Vancouver Island University; baseline monitoring of estuary restoration efforts; address foreshore encroachment and trespass management.
- **\$11,450** was invested at the Somenos Marsh Conservation Area in Duncan. Projects included: contribution to Somenos Marsh management plan update; working with Cowichan Tribes to develop a plan for the Somenos cultural site; review of North Cowichan's diking project and negotiation of mitigation/compensation to impacts to conservation area; development of management agreement with Somenos Marsh

Wildlife Society for the management of the Open Air Classroom; maintained restoration project areas at Bings Creek and Somenos Creek for species at risk.

- **\$11,250** was invested at Cowichan Estuary Conservation Area. Projects included: working with local stewardship groups on the implementation of the Mariners Island saltmarsh restoration project; annual dike and water control inspections; invasive species removal; maintenance on facilities in the conservation area; annual farm plan for Dinsdale Farm.

For additional information, including the pertinent land management objectives and conservation outcomes, please refer to the detailed annual reports.

Objectives by Property	Activities/ Description	Photo(s)	
Green Mtn WMA			
1.2 On-going implementation of alpine meadow habitat restoration program with Marmot Recovery Foundation and Nan F&G Club	1.2 Controlled burn completed on south slope		
2.1 Interpretive and regulatory signs installed at main access points	2.1 Interpretive(<i>left</i>) & regulatory signs (<i>right</i>) installed at main access points		

**Nanaimo River Estuary
CA**

2.2 Maintain trails, platforms, gates

2.1 Finalize development of interpretive sign and produce/install

2.2 All trails maintained; Holden Creek stairs rebuilt (*left*)

2.1 Interpretive kiosk completed and signs produced (*right*)



1.2 Invasive species management and natural vegetation restoration focused on VESP habitat restoration program

1.2 Invasive species work completed within priority SAR restoration areas of plan.



**Baynes
Sound CA's**

1.1 Invasive species removal - targeted species include Japanese Knotweed, Spartina, Gorse, Knapweed

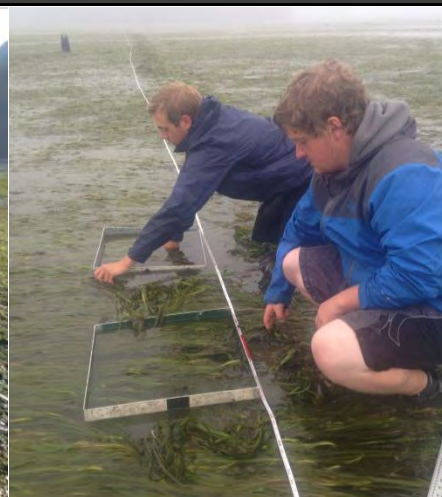
1.1 All Spartina located within the Conservation Area boundaries has been removed. *Removals in Union Bay area to prevent spread into Baynes Sound CA's*



**Tofino
Mudflats
WMA**

3.1 Coordinate on-going eel grass mapping and Spartina inventory

3.1 Ongoing eelgrass mapping/inventory, and Spartina surveys completed



**Lazo Marsh
WMA**

1.5 Implement phase 2 of trail management plan

1.3 Priority invasive weed removal

1.5 Phase 2 implementation completed including maintenance of trail infrastructure (*left*)

1.3 Scotch Broom removals in cooperation with Comox Valley Broombusters



**Hardy Bay –
Quatse River
Estuary WMA**

1.2 Construction of interpretive kiosk with interpretive sign

1.2 Unveiling of the new interpretive sign to commemorate the establishment of the Hardy Bay – Quatse River Estuary WMA (*Pictured: Representatives from Ducks Unlimited Canada, The Nature Trust of BC, The District of Port Hardy*)



**Somenos
Marsh CA**

3.1 Manage development and implementation of habitat recovery plan for endangered species at Somenos Marsh in cooperation with HSP and Environment Canada; supervise Phase 2 implementation

3.1 Monitoring, assessment, and maintenance of restoration area completed.
(*Bottom left: Navaretia intertexta*, *Bottom right: Psilcopharphus elatior*)



1.7 Manage farm lease to maximize forage production for migratory birds.

1.7 Mowing of agricultural areas completed in as outlined in annual farm plan



**Parksville-
Qualicum
Beach WMA**

1.7 Invasive species management and inventory throughout WMA focused on CIPC priority species and resident CAGO control plan

2.2 Maintain infrastructure (trails, interpretive signs, viewing platforms, gates)

1.7 Gorse removals within the Englishman River Estuary (*left*)

2.2 Refinished vandalized bench overlooking the estuary (*right*)



Region: South Coast

Ecological Significance of the Region:

The majority of Lower Mainland Region conservation projects focus on the Fraser River and its tributaries. One of the largest rivers in the world, the Fraser flows from the Rocky Mountains south and west to the Fraser-Puget lowland, and into the Pacific Ocean at the Strait of Georgia. The Fraser Basin watershed drains one quarter of the province. Sand and silt eroded from glacial terraces along its path are deposited as a delta in the Strait of Georgia. This delta is highly productive from an agricultural and human habitation perspective, making the Lower Mainland the socio-economic centre of the province.

The confluence of the Fraser and the Pacific Ocean results in delta marshes, estuaries, and an incredible level of diversity in fish and wildlife populations. The Fraser is the world's largest salmon river, while its estuaries provide critical resting areas for salmon migrating from salt to fresh water. Important year-round habitat for many bird species, the Fraser estuary is also a vital link in the Pacific Flyway, supporting over 1.5 million birds from three continents and 20 countries. The Boundary Bay, Sturgeon Bank and South Arm Marshes Wildlife Management Areas have been designated as Western Hemisphere Shorebird Reserve Network sites. The estuary supports the largest wintering shorebird and waterfowl populations in Canada. The area also provides habitat for significant numbers of raptors and marine mammals.

The South Coast Region contains 12 Conservation Land complexes, administered regionally, including a number of properties owned by The Nature Trust of British Columbia.

Summary Statement of Regional Investment:

In 2014-15 \$91,870.00 was allocated to the 12 Conservation Lands in the South Coast region, to assist regional staff and partners in achieving management objectives.

Project Highlights:

\$6,870.00 invested in Bert Brink Wildlife Management Area for property inspection, invasive plant assessment and rubbish removal.

\$10,938.00 invested in Boundary Bay Wildlife Management Area for property inspections, rubbish removal, invasive plant management, and sign maintenance.

\$3,180.00 invested in Camp Slough conservation area for property inspection, invasive species management, rubbish removal, and restoration of disturbed areas. Over 1 km of perimeter fencing was installed to protect habitat integrity from unauthorised usage.

\$2,230.00 invested in the Wells Sanctuary conservation area for property inspections, invasive plant removal, rubbish removal, and signage. A habitat restoration project was initiated, including the planting of western red cedar and cattail in areas where invasive species had been removed.

\$2,230.00 invested in the Chilliwack River conservation area for property inspection, rubbish removal, documentation of ecological attributes and concerns, and maintenance of property information signage.

\$2,680 invested in the Harrison River conservation area for property inspection, rubbish removal, invasive species management, and maintenance of property information signage.

\$0 invested in the proposed Harrison-Chehalis Wildlife Management Area. The proposed WMA was not designated before the end of the O&M funding term. Consultation follow-up has now been completed successfully with all stakeholders. Region supports the designation and will forward this recommendation, along with the Order in Council package, to Victoria in the coming weeks.

\$22,623 invested in the Pitt-Addington Wildlife Management Area to assess land management needs and ecological values, maintain informational signage, and maintenance of public access trails and facilities. Additional investments were made in removal of invasive Mute Swans, hogweed, and black berry. Both viewing towers received extensive renovations, including replacement of the old cedar shingle roof with more durable corrugated steel roof, and replacement of handrails, stair risers and decking where necessary. Red-listed western painted turtles will be released into the Pitt-Addington WMA over the next few years. In anticipation of this, funds were invested in construction of a turtle nesting beach. Although the released turtles are not expected to mature for a few years, this will allow the beach to settle and stabilize. One large beach was constructed, rather than four smaller beaches, to reduce costs.

\$980.00 invested in the Surrey Bend conservation area for property inspections, boundary identification, and rubbish removal.

\$3,380.00 invested in the Silverhope Creek conservation area for ecological assessment, inspection for land management needs, public information sign installation, rubbish removal, and boundary identification.

\$2445.33 invested in Coquitlam River Wildlife Management Area to manage invasive black berry, remove fallen tree debris, repair the boundary fence and manage beaver activity to ensure adequate drainage.

\$6023.14 invested in Roberts Bank Wildlife Management Area to remove and control invasive plants such as yellow flag iris, scotch broom and giant hogweed. Information brochures about the role of the WMA in conserving red and blue listed species and ecosystems were produced and distributed to owners of property adjacent to the WMA. The long-term goal of this outreach program is to increase stewardship of adjacent property owners and their impact on the WMA by reducing dumping of yard waste, storage of property, landscaping of the high beach, removal of native vegetation, and escape of ornamental plants.

\$14,016.12 invested in Serpentine Wildlife Management Area for removal and control of invasive plants such as yellow flag iris, giant hogweed, thistle, scotch broom, and black berry. New loafing logs were installed in the wetlands to replace logs that had sunk or lost their anchors. These logs provide resting places for wildlife and deter skating and ice hockey if the wetlands freeze during cold snaps. This activity was deferred to year 2 from year 1. A complete sign package was installed. This activity was also deferred from year 1. Additional activities include garbage removal, grass mowing and vegetation removal, including removal of tree debris resulting from winter wind storms. Removal of the old storage barn and repair of the picnic infrastructure was deferred to year 3.

\$3973.58 invested in South Arm Marshes Wildlife Management Area for maintenance of infrastructure, garbage removal, and vegetation management. No Mute Swans were observed to be defending territories in the WMA this breeding season, so no control efforts were implemented. Investment was made in trials to establish a new population of streambank lupine (*Lupinus rivularis*) at a site that was discovered on Kirkland Island. Streambank lupine is a red-listed plant species with only a few stable populations in the region. Initial attempts were not successful. Seeding transplants did not survive the growing season due to the presence of an insect pest and none of the seeds planted last year germinated this spring. The seedlings were transplanted late in the growing season, which may have made them more susceptible to insect pests. More seeds were planted early in the year.

\$0 invested in Sturgeon Bank Wildlife Management Area. No action was necessary in Sturgeon Bank WMA this year. Sturgeon Bank WMA benefits from stewardship of, and proactive action by, the City of Richmond with respect to management of invasive species, vegetation management and removal of garbage along the dyke trail that is adjacent to the WMA.

\$1580.34 invested in Squamish Estuary Wildlife Management Area to draft and print a sign package. Installation of the package was deferred to year 3.

\$3240.39 invested in Forslund-Watson conservation land for removal and control of invasive black berry, maintenance of infrastructure (primarily repair of vandalism to the perimeter fence and gate), garbage removal and trimming and mowing of vegetation around the pond.

\$1017.34 invested in Pemberton Valley Wildlife Management Area for installation of a water staff gauge to monitor water levels on the Green River to support best practices for boating in the WMA. Newly issued authorizations for commercial boating in the WMA and permits for same in the adjacent Provincial Park, requires boat operators to implement different practices when water levels in the Green River are below established thresholds to protect fish habitat.

Conservation Outcomes:

The 2014-15 field season resulted in the completion of a variety of critical land management activities on a number of Conservation Lands within the South Coast Region. Assessments of the ecological

attributes and issues specific to each property form the basis for activity planning for current and future field seasons.

Restoration and enhancement of conservation lands for habitat values ensures that these lands are optimal for use by fish and wildlife that depend on them. Informational signage, indicating property ownership and management partners, serves to demarcate boundaries and to provide the public with the means to contact a land manager to discuss management concerns and issues. Maintenance of access points and facilities on conservation lands ensures that public access will be safe.

Additional and Partner Funding:

\$248,853 of funding was provided by the Ministry of Forests, Lands and Natural Resources and its partners:

1. \$15,000 from the Forests and Range section of FLNRO invested in removal and control of invasive plants.
2. \$114,543 from Ducks Unlimited Canada for land management activities in WMAs and other conservation lands.
3. \$1,250 from BC Parks for half of the cost of installing the staff gauge on the Green River.
4. \$86,260 from the Squamish Watershed Restoration Society, and \$5000 from the Squamish District office of FLNRO, to begin restoration of the decommissioned log sort in the Squamish Estuary WMA.
5. \$15,000 from the Habitat Stewardship Program for fencing at Camp Slough conservation area.
6. \$5,800 from the Canada Summer Jobs Program, and \$11,000 from The Nature Trust, to support TNT's summer field crew, which visited all conservation lands leased by TNT to the province of BC.

Region: South Coast**Photographs:**

1. **Bert Brink Wildlife Management Area** –property inspections, removal of rubbish, control of invasive vegetation at access points.



2. **Boundary Bay Wildlife Management Area** – property assessed for habitat values; photographic monitoring point established; garbage removed by Conservation Youth Crew and volunteers.



3. **Chilliwack River** – property assessed for management needs; boundary signage maintained; rubbish removed.



4. **Wells Sanctuary** – property assessed for management needs; habitat restoration including removal of Yellow flag-iris and planting of Western red cedar and cattails.



5. **Silverhope Creek** – property assessed for management needs; signage installed; extensive rubbish removed.



6. **Pitt-Addington WMA** – Before, during and after construction of a nesting beach in advance of reintroduction of a population of red-listed Western Painted Turtles into the WMA.

Region: Okanagan

Photographs:





1. **Okanagan Falls Biodiversity Ranch** – Inventory and mechanical control of invasive species; photographic monitoring; Species at risk inventory (Berh's Hairstreak Butterfly); assisting with Nightjar auditory surveys.



2. **Skaha Lake** - property assessed for ecological values and concerns; public information signage produced and installed; public access points maintained for safety and effectiveness.





3. **Vaseux Lake East, West, North** - property assessed for ecological values and concerns; public information signage produced and installed; boundary fence maintained and repair; rubbish removed.



- 4. Vaseux Lake-Brock & Thomas** - Invasive species control; public information signage produced and installed; reseeding ATV trespass area.







5. **Duck Meadows** – property assessed for ecological values and concerns; boundary signage produced and installed;

Region: Okanagan**Ecological Significance of the Region:**

The Okanagan Region has a dry, continental climate, lying in the rain shadow of the Coast and Cascade Mountain ranges. Vegetation varies from Engelmann spruce and lodgepole pine at the subalpine elevations, to Douglas-fir at lower elevations, and ponderosa pine, bunchgrass, and sagebrush at the valley bottom. These vegetation zones are in relatively close proximity to one another, resulting in extremely rich biological diversity in a small area.

The Okanagan, especially in the south, contains a large number of unique flora and fauna, as it is the northern extension of the Columbia Plateau. Analysis has shown that the South Okanagan is the top biotic rarity hotspot and the top species richness hotspot in British Columbia. It has more federally listed species at risk than any other area of the province, and more provincially Red-listed and Blue-listed species than elsewhere. Furthermore, with some 303 species of birds recorded from the Okanagan, and similar richness in other animals and plants, many species are found here and nowhere else in Canada (Geoff Scudder, 2006).

Human development over the past century has resulted in dramatic reductions in native habitat. Grasslands, and in particular the antelope-brush ecosystem, have been greatly impacted. Over the past 15 years, the antelope-brush ecosystem has been reduced in area by over 65%, with current loss estimated at 2% per year. Channelization of the Okanagan River for flood control in the 1950's reduced its associated marshland by 85 to 90%, seriously impacting riparian habitat viability in the region. With population expected to double in the next 25 years, habitat in the Okanagan will become increasingly endangered over time.

The Nature Trust has been working in the Okanagan area since 1971. To date 18 properties have been secured with the help of many funding partners, totalling over 4,250 hectares (10,500 acres). These conservation holdings are particularly contiguous, providing habitat corridors on a landscape scale.

Summary Statement of Regional Investment:

Over \$61,751 was invested in the Okanagan Region for the 2013-2014 year, greatly assisted the conservation partners in addressing key land management objectives.

Project Highlights:

- **\$1,900** was invested at Duck Meadows in protecting wetland and associated upland habitat through annual inspection; sign installation; invasive species inventory and control; and rubbish removal.
- **\$4,450** was invested at Keremeos Creek in protecting grassland and wetland habitat through annual inspection; sign replacement; maintenance of public access points and fence lines; and

trespass and rubbish removal; discussions with neighbouring property owners regarding conservation values of property.

- **\$3,236** was invested at the Kilpoola Lake property. Primary tasks included site visits; addressing livestock trespass; fence maintenance; boundary and information signage produced and installed; and invasive plant management.
- **\$1,450** was invested at Salmon Arm Bay property. Primary tasks included invasive species management; boundary and information signage maintained.
- **\$1,000** was invested at Shorts Creek property. Primary tasks included updating work plan and strategic planning for invasive plant management; communication with neighbours and province regarding big horn sheep release.
- **\$5,850** was invested at the Skaha Lake property. Primary tasks included site visits; review and input to vegetation management along transmission line right of way; invasive species management inventory and control; boundary and information signs produced and installed; and rubbish removal at parking area and along hiking trails.
- **\$1,000** was invested at Trust Creek property. Primary tasks included site visits and invasive plant management.
- **\$825** was invested at Vernon-Swan Lake property. Primary tasks included site visits and discussions with neighbours regarding conservation values of the property.
- **\$4,980** was invested at the Vaseux Lake-Schneider property. Primary tasks included site visits; planning for invasive plant management to protect this high integrity grassland habitat; perimeter fence assessed and repaired; and continuation of the photographic monitoring program.
- **\$2,650** was invested at the Vaseux Lake – McIntyre Bluff property. Primary tasks included site visits; trail assessments, sign maintenance, and invasive plant management planning. The property includes a highly popular hiking trail to the bluff, which requires attention in order to protect the habitat values of grassland and rugged terrain.
- **\$5,650** was invested at the Vaseux Lake – East, West, North complex. Primary tasks included site visits; trail assessments, sign development and installation, and invasive plant management including surveys, mechanical treatment, and seeding.
- **\$7,250** was invested at the Vaseux Lake – Emery & Franmar complex. Primary tasks included site visits; maintenance of fences; invasive plant management including surveys, mechanical control seeding and mowing; discussions with utility ROW; and continuation of the photographic monitoring program.
- **\$10,150** was invested at the Vaseux Lake – Brock & Thomas complex. Primary tasks included site visits; invasive species management including survey and mechanical removal; fence repairs and sign development and installation.
- **\$6,000** was invested at the Okanagan Falls Biodiversity Ranch. Primary tasks included site visits; invasive species management including survey and mechanical removal; fence repairs; and continuation of the photographic monitoring program.

- \$6,000 was invested at the White Lake Basin Biodiversity Ranch. Primary tasks included site visits; invasive species management including survey and mechanical removal; fence repairs; and continuation of the photographic monitoring program.

Conservation Outcomes:

The 2014-2015 field season resulted in site assessments being conducted on a number conservation properties in the Okanagan region. Each property has distinct management needs and objectives that reflect the unique landscape and ecology of the area. The assessments are multifaceted and include evaluation of conservation values and issues which assist in addressing land management concerns and updating work plans.

Updated boundary and information signs were produced and installed, over 40 hectares was surveyed and mechanically treated for invasive species. Approximately 22 km of boundary and range fence surveyed and maintained. Ongoing communication with conservation partners, utility right of way holders, and neighbours contributed to a successful field season.

THE KOOTENAYS

Ecological Significance

The Kootenay region is world renowned for its scenic beauty and biological diversity. Forest, shrub, grassland and wetland ecosystems provide habitat for a wide variety of plant and animal species including over 215 species at risk.

From the heights of the Rocky Mountain Range there are vantage points where you can overlook the entire expanse of the East Kootenay region of south-eastern British Columbia. The western horizon, viewed from these vantage points, is profiled by the Purcell Mountain range which is separated from the Rocky Mountains by an enormous valley known as the Rocky Mountain Trench. Two great rivers begin here; the Kootenay flowing south through dry grasslands, with signs of historic wildfires, and the Columbia flowing north through a series of long valley-bottom lakes and lush wetlands. This great river eventually swings south at Boat Encampment and continues south between the Monashee and Selkirk Mountain ranges in the West Kootenay and into the state of Washington at Waneta. Another important river, the Elk, begins its journey in the eastern Rocky Mountains and winds its way along towering cottonwoods to join the Kootenay immediately south of the small community of Baynes Lake.



The geographic diversity of the Kootenay landscape along with wide variations in climate has created conditions and habitats that support rare plant life, productive aquatic systems, and abundant populations of elk, deer, Rocky Mountain bighorn sheep, mountain goat and moose. Such abundant animal life naturally attracts predators and consequently wide-ranging carnivores are still common in the Kootenays. Additionally, over 270 species of birds make use of the region. With such a variety and abundance of wildlife species and natural habitat values it is no wonder the Kootenay region is considered an area of regional, national and global wildlife significance.

Key Property Complexes

Bull River	RCMP Flats
Bummers Flats	Redfish Creek
Columbia Lake East	Sheep Mountain
Columbia Lake West	Slocan Lake
Gold Creek Game Reserve	Waldie Island
Grave Prairie	Walter Clough
Hoodoo/Hofert	Wasa Slough
Lardeau-Duncan	Wigwam Flats
Marsden Face	

From a rare species perspective, the grasslands, dry forests, montane forests, scattered wetlands, and cottonwood habitats in the Kootenay region provide unique habitats that support some of the region's rarest species such as the badger, Swainson's hawk, Leopard frog, long-billed curlew, Lewis' woodpecker and Wild licorice.

However, there is concern that as the low elevation valleys in the Kootenays, which provide some of the most important habitat for a wide spectrum of wildlife, continue to be developed and attract increased levels of human settlement, the list of plants and animals at risk is growing as is the list of species at risk that are no longer found here. To address this issue, The Nature Trust of BC and its partners have worked to conserve ecologically significant habitats. Currently, 37 conservation properties have been secured in the Kootenay region. These properties, when combined with those secured by partnering land trust organizations and agencies, have resulted in a significant area of the Kootenay landscape being preserved in perpetuity.

2014-2015 Summary Report:

To assist regional staff and conservation partners in achieving conservation land management objectives, over \$103,000.00 was allocated to 12 properties in the Kootenay region

Project Highlights:

- **\$2,130.00** was invested into the Bull River conservation land complex which is comprised of The Nature Trust of B.C.'s Armstrong and Lower Norbury Creek properties. Capital investment was directed towards the reduction and control of invasive burdock, knapweed and blueweed plant species.
- **\$2,142.35** was invested into the Bummers Flats-Cherry Creek conservation property complex to reduce the spread of invasive plant species. A variety of deciduous trees and riparian shrubs were planted around the perimeter of the wetland referred to as Georges Pond.
- **\$1,178.44** was invested into the removal and control of invasive plant species on the Wigwam Flats conservation property complex.
- **\$4,000.00** was invested into the removal and control of invasive plant species on the Wasa Slough conservation property and the investigation and documentation of trespass structures on the property.
- **\$3,131.70** was invested into the construction of a vehicle parking area and the installation of new gate structures and fencing in an effort to control and concentrate vehicles in one location on the property. This was a necessary preventative action initiated to reduce the spread of invasive weeds brought onto the property by recreational vehicles and to reduce the impact on the land created by random vehicle parking.
- **\$2,348.53** was invested in the Waldie Island conservation property to document and map invasive weed infestations, wrap trees with wire to prevent beaver damage and install property boundary and access information signs.
- **\$7,725.38** was invested into the Lower Duncan-Lardeau Flats conservation property complex to restore riparian vegetation along the perimeter of wetlands, reduce the competition between invasive species and riparian shrub communities and to accommodate the mowing of the south field in an effort to reduce the development and spread of invasive species.
- **\$55,771.30** was invested into the Grave Prairie property complex to identify and map potential wildlife trees prior to the actual creation of 30 wildlife trees on the property. To protect elk and deer during seasonal and daily movement patterns over 1 kilometer of dilapidated fence was removed and a new "wildlife friendly" fence was installed. To enhance and maintain biodiversity several elk proof fences were installed around the perimeter of three pre-determined aspen communities in an effort to reduce elk browsing pressure and encourage the recruitment of aspen suckers.
- **\$3,451.11** was invested into the Grand Forks conservation property for an inventory and the removal and control of invasive plant species.
- **\$1,450.00** was invested into the Columbia Lake Westside conservation property for the removal and control of invasive plant species.

- **\$5,185.26** was invested into the Columbia Lake Eastside conservation property to address forest encroachment and improve Rocky Mountain bighorn sheep habitat.
- **\$10,000** was invested into the Creston Wildlife Management Area for the installation of signage, water level monitoring, and maintenance of wetland compartments.

Conservation Outcomes:

The slashing component of the 2014-2015 HCTF O&M program addressed a significant forest encroachment issue on the Columbia Lake East conservation property. It is anticipated that more slashing work will be required on this property, as well as others, in the future.


Seeding was often conducted concurrently with invasive weed removal in an effort to prevent the establishment of weed species and to re-establish native species and return the affected sites to a more functional and suitable condition.


Wildlife tree creation is an important element in the effort to elevate the level of biodiversity on conservation lands and the creation of 30 wildlife trees on the Big Ranch conservation property certainly has the potential to enhance the number of wildlife tree dependent species that will utilize this habitat feature in the future.


The structural maintenance or installation component of the land management program enabled the Kootenay Conservation crew to conduct an inventory of property information signage and property boundary signage. This is an important element of the land management program as it not only establishes a footprint but provides a venue to provide information relative to the ecological values and characteristics of the properties to the public, relate what recreational activities are permitted or appropriate and, through the inventory segment, establish future signage requirements.


The fencing component of the 2014-2015 HCTF O&M program made a significant contribution to the protection of wildlife moving on and off conservation lands and to the perpetuation of healthy and rejuvenated aspen stands situated with the Big Ranch conservation property. This action will not only ensure that the aspen community will continue to exist on the property but that the stands will be more structurally diverse as they evolve from and even aged state to a multi aged and multi layered stand condition.


Invasive weed issues are rampant on some conservation lands and consequently invasive weed removal and control is an important component of the Kootenay HCTF O&M program. Invasive weed inventory and mapping is often conducted concurrently with control measures or independently on properties which were not scheduled for control treatment in 2014. The intent is to establish a good inventory which will facilitate the ability to address infested sites in the future.


Goals & Objectives by Property	Activities /Description	Images	
Bummers Flats			
Goal 1 Objective 1	1.2 Treat invasive plant species using mechanical control methods		


Goals & Objectives by Property	Activities /Description	Images	
Wasa Slough			
Goal 3 Objective 2	2.1 inventory and map the current distribution and density of invasive plants by species		


Goals & Objectives by Property	Activities /Description	Images
Waldie Island		
Goal 6 Objective 1	3.1 install advisory signs at both access gates to the trail that indicate (a) the area is a heron reserve, and (b) dogs must be kept on leash at all times.	


Goals & Objectives by Property	Activities /Description	Images
Duncan Flats - Lardeau		
Goal 1 Objective 2	1.1 Restore riparian vegetation along the Duncan River and tributaries	

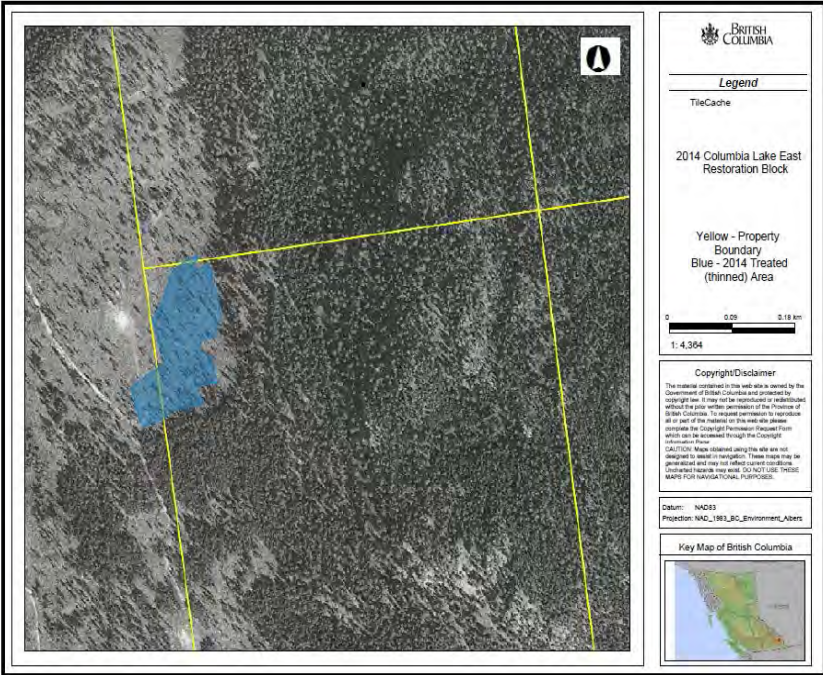
Goals & Objectives by Property	Activities /Description	Images
Duncan Flats - Lardeau		
Goal 1 Objective 3	2.1 Mow or burn old field sites to produce early spring forage for elk	

Goals & Objectives by Property	Activities /Description	Images
Grave Prairie		
Goal 1 Objective 2	1.1 Conduct feasibility assessment and obtain the necessary permits / approvals to excavate the irrigation ponds and reestablish water on the property for conservation purposes	

Goals & Objectives by Property	Activities /Description	Images	
Grave Prairie			
Goal 1 Objective 2	1.2 Selectively thin forest encroachment into old agricultural areas to maintain ungulate forage		

Goals & Objectives by Property	Activities /Description	Images	
Grave Prairie			
Goal 1 Objective 4	1.3 Build 5 ha of elk fencing around select aspen stands to exclude browse		

Goals & Objectives by Property	Activities /Description	Images
Grave Prairie		
Goal 1 Objective 2	1.3 Mechanically and microbially create wildlife trees for cavity nesting species.	

Goals & Objectives by Property	Activities /Description	Images
Columbia Lake East		
Goal 2 Objective 1	1.1 Implement prescribed slashing in identified areas	

Region: Cariboo**Ecological Significance of the Region:**

The Cariboo Region is a diverse landscape, ranging from coastal inlets, to the vast dry grasslands of the Chilcotin Plateau, to the interior rainforest of the Cariboo Mountains. These varied terrains and conditions result in an equally varied diversity of fish and wildlife.

The Cariboo Region contains 6 Conservation Land complexes, administered regionally, including a number of properties owned by The Nature Trust of British Columbia.

Summary Statement of Regional Investment:

In 2014-15 \$28,932.00 was allocated to the 6 properties in the Cariboo, to assist regional staff and partners in achieving management objectives.

Project Highlights:

\$900.00 invested in the Chilanko Marsh conservation area for property inspection and fence line assessments.

\$23,920.00 invested in the Chilcotin Lake & Marshes conservation area and **an additional \$40,000** leveraged from other sources. Over 6 kilometers of log-rail fencing was installed to protect the marsh from livestock access. Activities also included property inspections and installation of property information signage.

\$450.00 invested in the Dale Lake conservation area for property inspections for safety and ecological concerns, and installation of property information signage.

\$450.00 invested in the Tautri Creek conservation area for property inspection, documentation of ecological attributes and concerns, and installation of property information signage.

\$2442.00 invested in Hanceville conservation area for fencing material for on-going fencing. This year 470m of fencing was completed and an additional \$940 of fencing material was purchased.

\$600 invested in Knife Creek conservation area for fencing material.

Conservation Outcomes:

The 2014-15 field season resulted in important land management activities on a number of Conservation Lands within the Cariboo Region. Fence construction and maintenance serves to protect sensitive habitat areas from inappropriate use. Assessments of the ecological attributes and issues specific to each property form the basis for activity planning for the following field seasons.

Informational signage, indicating property ownership and management partners, with contact information was posted on properties where appropriate. This serves to demarcate boundaries and to provide the public with the means to contact a land manager to discuss management concerns and issues.

Region: Cariboo

Photographs:



1. **Chilanko Marsh** – assessment of ecological values and concerns, including derelict perimeter fencing.



2. **Chilcotin Lake & Marshes** – property assessed for habitat values and management needs. Informational signage installed. Over **6 kilometers** of log-rail fencing installed to prevent livestock trespass.



3. **Dale Lake** – property assessed for management needs and issues; boundary signage installed as needed.



4. **Tautri Creek** – property assessed for management needs; information signage installed.



5. **Hanceville** – continue to work with the tenants. Four hundred and seventy (470) meters of new fence was built along the hayfield.

Region: Skeena**Ecological Significance of the Region:**

The Skeena Region covers approximately one third of the province of British Columbia. It is a highly varied landscape, characterised by mountainous terrain, interspersed with large plateaus, a multitude of lakes and several of the province's largest rivers including the Skeena, the Nass and the Stikine.

The Skeena Region includes BC's North Coast from the Coast Mountains to the Pacific Ocean. This area is rich in biological diversity and noted for the Pacific Flyway, an important migration corridor for birds. Large rivers, such as the Nass and the Skeena, flow into the Pacific Ocean, providing critical estuarine habitats. The Skeena Region's extensive wilderness areas provide habitat for a wide variety of wildlife. Both Black and Grizzly Bears occur here, and salmon are abundant in the major rivers and tributaries.

The Skeena Region contains 8 Conservation Land complexes, administered regionally, including a number of properties owned by The Nature Trust of British Columbia, a Wildlife Management Area, and a Wildlife Habitat Management Area.

Summary Statement of Regional Investment:

In 2013-14 \$26,250.00 was allocated to the 7 properties in the Skeena, to assist regional staff and partners in achieving management objectives.

Project Highlights:

\$4,035.00 invested in the Alice Arm conservation area for property inspection, survey of invasive plants and a full botanical inventory.

\$900.00 invested in the Kitsumkalum Lake – Nelson River conservation area for property inspection, survey of invasive plants, access evaluation, and installation of property information signage.

\$900.00 invested in The Lakelse Lake – Mullers Bay conservation area for property inspection, rubbish removal, and installation of property information signage.

\$1,645.00 invested in The Lakelse River conservation area for property inspection, documentation of ecological attributes and concerns; and installation of boundary demarcation signage.

\$3,770.00 invested in the Smith Island conservation area for property inspection, full botanical inventory; and production/installation of property information signage.

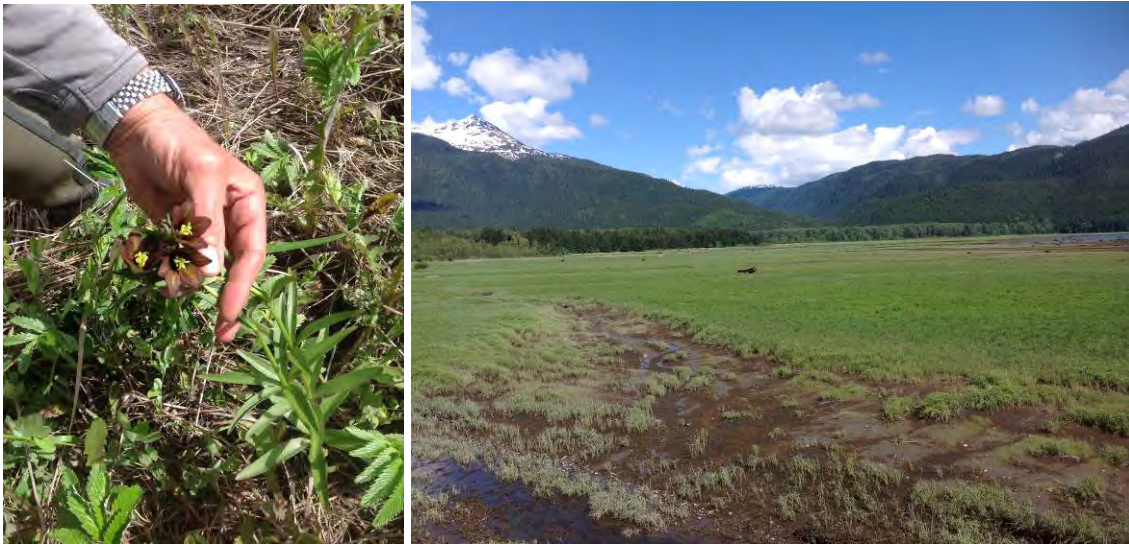
\$10,206.00 invested in Todagin WMA for design and construction of a public information kiosk and educational materials.

\$4,497.00 invested in Bulkley Valley WHMA for ecological restoration and land management assessment.

Conservation Outcomes:

The 2014-15 field season resulted in the assessment of a number of Conservation Lands within the Skeena Region, each with tremendous, unique habitat values. These assessments, including evaluation of the ecological attributes and issues specific to each property, and botanical surveys on select properties, guide activity planning for ongoing land management.

Informational signage, indicating property ownership and management partners, with contact information was posted on properties where appropriate. This serves to demarcate boundaries to protect habitat values from inappropriate public usage, and to provide the public with the means to contact a land manager to discuss management concerns and issues.

Region: Skeena**Photographs:**

1. **Alice Arm** – botanical survey of a highly productive estuary and grizzly bear habitat.



2. **Kitsumkalum Lake – Nelson River** – property assessed for habitat values, public usage, and management needs. Informational signage installed to curb off-road vehicle use.



3. **Lakelse Lake – Mullers Bay** – property assessed for management needs; rubbish removed; boundary signage installed.



4. **Lakelse River** – property assessed for management needs; boundary signage installed; stewardship partners engaged.



5. Smith Island – property assessed for management needs; botanical survey conducted.

Region: Omineca**Ecological Significance of the Region:**

The Omineca Region encompasses a large portion of northern British Columbia, with a diversity of landscapes ranging from the broad flat pine forests of the Central Plateau to the rugged peaks of the central Rocky Mountains. This Region includes the highest mountain in the Canadian Rockies, Mount Robson (3954 m).

The Omineca Region encompasses the headwaters, or portions of the headwaters, of several provincially important rivers, including the: Fraser, Nechako, Pine, Findley, Parsnip and Stuart. Within the drainages of these rivers lie several regionally important lakes and the Province's largest reservoir, Williston Lake which lies behind the W.A.C. Bennett Dam. The rivers and their tributaries provide spawning grounds for Chinook, Coho, and Sockeye Salmon. Arctic Grayling, White Sturgeon, Rainbow, Bull and Lake Trout, as well as several species of whitefish, suckers, minnows and Burbot, all live within the Omineca Regions lakes and streams. One of the highest valued recreational rainbow trout fisheries is in the Stellako River, which in 2013 became the Omineca Regions first Wildlife Management Area. Clear, cold mountain streams provide necessary habitat for Blue Listed Bull trout in the Omineca and the large meandering Nechako and Fraser Rivers are home to Red Listed White Sturgeon.

Regionally important wetlands, such as those on the Hominka and in the Cranberry Marsh / Starratt WMA, provide much needed rest and refueling stops for a number of migratory birds. Populations of American White Pelicans nest on some of the regions lakes and White Swans winter on several rivers. The northern extent of Sharptailed Grouse range occurs on southwest facing meadows in the southern portion of the region and in the agricultural lands local breeding groups of Long-billed Curlews and Sandhill cranes can be found in the spring.

The largest herds of Mountain Caribou left in the Province reside in the mountains on the eastern side of the region, and in the north populations of Northern Caribou still roam. Throughout the Omineca region there are Moose, Grizzly bear, Black Bear, Fisher, Marten, Lynx, Wolf, Mountain Goat, and Mule Deer, with local populations of Stone Sheep, Elk and White Tail Deer and Cougar where snow packs are thinner. Rare plant associations, ecosystems and habitats are scattered across the Omineca bolstering regional biological diversity, including the northern extent of Whitebark pine and Douglas fir, and the largest population of Haller's Apple moss in the world as well as the only known locations of Crumpled Tar Paper Lichen.

Given the highly diverse and geographically large area that the Omineca region covers it contains relatively few Conservation Lands. Only 5 such areas are administered regionally and they cover a small selection of the habitats that can be found regionally.

Summary Statement of Regional Investment:

In 2014-15 \$28,050.00 was allocated to 5 conservation properties in the Omineca, to assist regional staff and partners in achieving management objectives.

Project Highlights:

\$11,176.00 invested in the Cranberry Marsh / Starratt WMA for boundary identification, update of current interpretive signs to reflect current land designation and replace signs that are in disrepair are ongoing activities, community engagement and completion of a draft management plan, trail assessment, minor repair of trail infrastructure, Invasive plant signage, planning, and implementation of invasive plant management plan, and seasonal inspections.

\$5,156.00 invested in the Stellako River WMA for invasive species removal, invasive plant signage and planning for 2015, updated signage and seasonal inspections that identified trail issues, invasive species monitored. Boundary signage was installed and habitat values assessed for potential impacts from adjacent land use. Derelict cabin was dismantled and removed from site, ongoing management of agreement with DFO.

\$1620.95 invested in the Joanne Lloyd property for invasive species control and removal, infrastructure maintenance and seasonal inspection

\$2,470.00 invested in the Nechako River conservation property to assess property condition, needs, and public usage. An informational sign was installed at the primary public access point. Invasive plant assessment was completed.

\$2,250.00 invested in the Mount Robson Ranch property to assess property condition, needs, and public usage. Informational and boundary signs were installed at public access points.

Conservation Outcomes:

Invasive plant management targeted sites identified in 2014 and will continue to focus on priority areas of concern. Implementing invasive plant management has been undertaken with the expertise of the Northwest Invasive Plant Council. Development of a draft management plan for the Cranberry Marsh / Starratt WMA was completed under contract. The management plan development included a community engagement event and meetings with stakeholders. Maintenance of infrastructure, installation of signage, site visits and trail maintenance were undertaken by BC Conservation Core, The Nature Trust and FLNRO staff. Trail deactivation and rehabilitation sites were identified and preliminary planning has been undertaken in preparation for 2015/16.

Region: Omineca

Photographs:





1. **Stellako River WMA** – property assessed for safety and needs; public access area treated for invasive plants; signage installed indicating property management partners and contact information.





2. **Nechako River Property** – property assessed for public usage; management needs; signage installed indicating property management partners and contact information.





3. **Cranberry Marsh WMA** – property assessed for public usage; management needs; signage installed indicating property management partners and contact information.



4. **Mount Robson Ranch Property** – property assessed for public usage; management needs; signage installed indicating property management contact information.



5. **Joanne Lloyd / Clucluz Lake Property** - property assessed for public usage; management needs; signage installed indicating property management partners and contact information.

Region: Northeast

Ecological Significance of the Region:

The Northeast Region of British Columbia is located between the Rocky Mountain foothills and the Alberta Plains.

This region consists of the Peace River and Liard River drainages of the Arctic watershed, featuring plateaus, plains, prairies, and lowlands lying east of the Rocky Mountains. Areas at higher altitudes are poorly drained, resulting in extensive muskeg areas. The region is characterised by boreal forest with critical wetlands and lakes interspersed throughout.

Since the 1950's, the Northern Region has experienced rapid development of oil and natural gas resources, resulting in increased fragmentation of this landscape. A number of Class 1 wetlands provide critical habitat for numerous waterfowl.

The Northeast Region contains 6 Conservation Land complexes owned by The Nature Trust of British Columbia, and numerous regionally administered Crown reserve areas.

Summary Statement of Regional Investment:

In 2014-15 \$50,150.00 was allocated to 11 project areas in the Northeast, to assist regional staff and partners in achieving management objectives.

Project Highlights:

\$5,500.00 invested in the Boundary Lake conservation area for property inspection, management of invasive plants, maintenance of water control structures, and installation of property information signage. A Management Direction Statement with supporting mapping was also produced for this property.

\$5,700.00 invested in the Comstock Marsh conservation area for property inspection, management of invasive plants, and maintenance of water control structures. Boundary signage was installed and public access areas maintained for safety.

\$4,950.00 invested in the Dunlevy Creek conservation area for property inspection, installation of boundary and information signage, and removal of conifer ingrowth was also in select areas to maintain elk foraging habitat.

\$4,550.00 invested in the Fort St. John Potholes conservation area for property inspection, management of invasive plants, maintenance of water control structures, and property boundary signage.

\$12,300.00 invested in the McQueen Slough conservation area for property inspections, management of invasive plants, and maintenance of water control structures. Property information signage was

installed, and boardwalks and public facilities were maintained for safety. This conservation area hosts elementary school children annually as an outdoor learning area.

\$3,050.00 invested in the Worth Marsh conservation area for property inspections, documentation of assessment of invasive plants, and installation of property boundary signage.

\$3,150.00 invested in the Cecil Lake, Whispering Pine and La Garde conservation area properties for the completion of Management Direction Statements with maps.

\$6,300.00 invested to undertake a formal review of all conservation lands held by MFLNRO in the Northeast Region. This project consisted of a detailed review and evaluation of the existing conservation land properties files, which resulted in the development of up to date direction that clearly outlines current values, threats and approaches to land use management within these ecologically valued areas to confirm compatible land use practices, where appropriate, for industrial proponents and decision makers.

Conservation Outcomes:

The 2014-15 field season resulted in a wide range of critical land management needs being addressed on conservation lands in the Northeast Region. These activities, including habitat restoration and maintenance of public facilities and structures, ensure that habitat values are maintained or enhanced, and that public access to these conservation lands is safe and appropriate.

Informational signage, indicating property ownership and management partners, with contact information was posted on properties where appropriate. This serves to demarcate boundaries to protect habitat values from inappropriate public usage, and to provide the public with the means to contact a land manager to discuss management concerns and issues.

Property assessments, including evaluation of the ecological attributes and issues specific to each property, form the basis for activity planning for the following field seasons.

Region: Northeast**Photographs:**

1. **Dunlevy Creek** – Informational signage installed. Elk foraging habitat maintained through the removal of conifer ingrowth.



2. **Fort St. John Potholes** – Property assessed for habitat values and management needs. Water control structure maintained to sustain optimal water levels in this important wetland complex. Boundary signage installed to provide land management contacts and management partner information.



3. **McQueen Slough** – property assessed for management needs; boardwalk and public facilities maintained. Boundary signage installed to provide land management contacts and management partner information.



4. **Boundary Lake** – property assessed for management needs; invasive plants managed to protect habitat values. Boundary signage installed to provide land management contacts and management partner information.



5. **Comstock Marsh** – property assessed for management needs, boundary signage produced; invasive plants managed, access points and water control structure maintained.