

Bird Use of the French Creek Estuary & Related Conservation Planning Recommendations

October 2, 2018

Produced for the Mount Arrowsmith Biosphere Region
Research Institute

In Support of Proposed Conservation Land Securement & Management
at the French Creek Estuary, South Side at the Creek Mouth

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Pro Bono Service in keeping with the report author's role as Important Bird Area Caretaker, Little
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Introduction:

The Mount Arrowsmith Biosphere Region Research Institute has been tasked with collecting information and coordinating community efforts in support of efforts to work out a deal involving the Friends of French Creek Conservation Society and the landowner to see the protection of lands primarily concentrated at the mouth of French Creek.

This report details the ecological importance of the site and sets out the context of the proposed conservation area within larger designated conservation priority zones.

Furthermore, a list of bird species present in the French Creek estuary is included in the report body in table format, identifying whether the species directly use the estuary or utilize ecologically connected habitats upstream or downstream.

Habitat restoration options are noted and briefly described, noting the use of native plants, invasive plant removal and replanting of degraded areas and non-optimally situated old pathways to reduce disturbance and habitat loss to erosion and fragmentation.

Site description:

French Creek lies within the Regional District of Nanaimo, with the estuary section proposed for securement falling straight into categories of high conservation significance.

As an estuary, the French Creek Estuary is one of the most significant natural resources and wild bird habitats that is within the Little Qualicum Estuary to Nanoose Bay Global Important Bird Area (IBA) (Important Bird Areas Canada 2013). The IBA is an internationally significant designated bird conservation area for which the report author is the volunteer IBA caretaker. It is one of the four significant estuaries that make up a significant portion of this global bird conservation hotspot and site of conservation concern.

The French Creek Estuary is located within the Parksville-Qualicum Beach Wildlife Management Area (Regional District of Nanaimo 2018). The habitat designation supports efforts to protect key coastal habitat including estuaries. Management of terrestrial habitat bordering aquatic habitats through landowner stewardship is flagged as important for the Wildlife Management Area (WMA). Securement and restoration of habitat at French Creek will help to achieve these objectives in an important section of habitat.

The Mount Arrowsmith Biosphere Region (Mount Arrowsmith Biosphere Region n.d.) with its combination of core areas, buffer zones and development and working landscapes that make up its transition zones includes the French Creek Estuary within its bounds. Securement of habitat at the French Creek Estuary will add to the functionality of the Mount Arrowsmith Biosphere Region as a Biosphere Reserve to practice, explore, refine and showcase conservation progress in sensitive ecosystems falling under multiple conservation designations and different types of land status and human use.

The French Creek Estuary falls within a region that has experienced significant environmental impacts yet serves as a core and rare remaining habitat of its type for native species. This report focuses on the

waterbirds, shorebirds, songbirds and other landbirds that are found within the boundaries of French Creek and the significance of securing and managing the site in benefiting these species. The proposed conservation securement area is of significance for securement as an area of conservation significance within the Little Qualicum Estuary to Nanoose Bay Important Bird Area, and its securement aligns with key best practices for conservation planning that are relevant to the site as it is concerned.

Furthermore, the securement of the site offers the opportunity to enact land use planning and conservation measures that will see the value of the habitat, both terrestrial and aquatic improve for native birds. As a result, the habitat value through securement will be beyond the habitat value currently presented by the current land area subject to conservation securement.

This report also details the specific areas of the property and types of native planting enhancement that will benefit native birds. Furthermore, simple Important Bird Area Signage as present in conservation areas elsewhere in the Important Bird Area boundaries at key sites could be added, together with a viewing platform offering a perspective out to sea from the uplands and creek with such high ecotourism potential and value once the site is secured and effectively presented. Currently, protected areas are located at all significant estuaries within the Little Qualicum to Nanoose Bay Important Bird Area including a section of the Qualicum National Wildlife Area at the Little Qualicum River Estuary and a unit at the Nanoose Estuary (Environment Canada 2017).

The Englishman River Estuary enjoys significant conservation protections, while the newly acquired Parksville Wetlands park protects 97 acres in Parksville. The mouth of French Creek is an ecologically important estuary site between these different protected areas of spatial significance as a stopover site for migratory birds moving through the Little Qualicum to Nanoose Bay Important Bird Area.

Native Bird Usage & Occurrence

Over 135 native species and 5 introduced species of birds use the French Creek Estuary (Arrowsmith Naturalists 2011).

Species to be benefited through the proposed habitat securement include a broad selection of waterbirds, shorebirds, songbirds and other landbirds.

The following 140 species occur in and near to important and ecologically connected habitat zones comprising the French Creek Estuary.

Certain species directly use the terrestrial and aquatic habitats that make up the proposed securement area, while other species use downstream marine waters or forested environments upstream of the proposed securement area. Direct habitat users will benefit from securement and restoration of their immediate habitat, while downstream and upstream habitat users may benefit from general water quality, foraging and migratory stopover habitat benefits from securement of the ecologically connected habitat. The list differentiates between the two categories.

The sightings and bird occurrence findings are derived through this report's author's work as a birding tour guide for a Parksville tour company, site visits through the work of the author as the Important Bird Area Caretaker for the Little Qualicum to Nanoose Bay IBA and from the *Seasonal Bird Checklist – Parksville Qualicum Area* (Arrowsmith Naturalists 2011).

A number of bird species occurring in the area are either trigger species whose occurrence within the Little Qualicum Estuary to Nanoose Bay Important Bird Area are partially responsible for the designation of Important Bird Area (Important Bird Areas Canada 2013). Also, a selection of bird species using the estuary are of conservation concern, being either red or blue listed species. These conservation status aspects are also attributes noted in the table of bird species. Species of conservation concern on the BC Red and Blue lists (Stewardship Centre for British Columbia n.d.) are identified below.

Table of Bird Species & Associated Habitat Uses in the French Creek Estuary

Species	Habitat Use Category	Abundance & Seasonality	Special Status:
Brant	Downstream	Fairly Common-Migrant	IBA Trigger Species, Blue List
Cackling Goose	Direct Use	Uncommon	Blue List
Canada Goose	Direct Use	Common	
American Wigeon	Direct Use	Common	
Eurasian Wigeon	Direct Use	Uncommon	
Mallard	Direct Use	Common	
Northern Shoveler	Direct Use	Uncommon	
Northern Pintail	Direct Use	Common	
Green-winged Teal	Direct Use	Common	
Greater Scaup	Downstream	Common	IBA Trigger Species
Lesser Scaup	Direct Use	Fairly Common	
Harlequin Duck	Downstream	Common	
Surf Scoter	Downstream	Common	IBA Trigger Species, Blue List
White-winged Scoter	Downstream	Common	IBA Trigger Species
Black Scoter	Downstream	Uncommon	Blue List
Long-tailed Duck	Downstream	Fairly Common	
Bufflehead	Direct Use	Common	
Common Goldeneye	Direct Use	Common	
Barrow's Goldeneye	Downstream	Common	
Common Merganser	Direct Use	Common	
Red-breasted Merganser	Direct Use	Common	
California Quail	Direct Use	Common	
Pacific Loon	Downstream	Common	
Common Loon	Downstream	Common	
Horned Grebe	Downstream	Common	Blue List
Red-necked Grebe	Downstream	Common	
Western Grebe	Downstream	Rare	IBA Trigger Species, Red List
Brandt's Cormorant	Downstream	Rare	Blue List
Double-crested Cormorant	Direct Use	Common	Blue List
Pelagic Cormorant	Downstream	Common	
Great Blue Heron	Direct Use	Common	IBA Trigger Species, Blue List
Turkey Vulture	Direct Use	Common	
Osprey	Direct Use	Uncommon	
Bald Eagle	Direct Use	Common	
Sharp-shinned Hawk	Direct Use	Uncommon	

Cooper's Hawk	Direct Use	Fairly Common	
Red-tailed Hawk	Direct Use	Fairly Common	
Merlin	Direct Use	Fairly Common	
Peregrine Falcon	Direct Use	Fairly Common	Blue List
Black-bellied Plover	Direct Use	Common	
Semipalmated Plover	Direct Use	Uncommon	
Killdeer	Direct Use	Common	
Black Oystercatcher	Downstream	Common	IBA Trigger Species
Greater Yellowlegs	Direct Use	Common	
Lesser Yellowlegs	Direct Use	Rare	
Spotted Sandpiper	Direct Use	Fairly Common	
Whimbrel	Direct Use	Rare	
Black Turnstone	Downstream	Common	
Western Sandpiper	Direct Use	Common	
Least Sandpiper	Direct Use	Common	
Pectoral Sandpiper	Direct Use	Uncommon	
Short-billed Dowitcher	Direct Use	Uncommon	Blue List
Long-billed Dowitcher	Direct Use	Rare	
Bonaparte's Gull	Direct Use	Common	IBA Trigger Species
Heermann's Gull	Downstream	Uncommon	
Mew Gull	Direct Use	Common	IBA Trigger Species
Ring-billed Gull	Direct Use	Uncommon	
California Gull	Direct Use	Common	Blue List
Herring Gull	Downstream	Uncommon	IBA Trigger Species
Iceland Gull	Direct Use	Common	IBA Trigger Species
Glaucous-winged Gull	Direct Use	Common	IBA Trigger Species
Caspian Tern	Downstream	Uncommon	
Common Tern	Downstream	Rare	
Common Murre	Downstream	Fairly Common	IBA Trigger Species
Pigeon Guillemot	Downstream	Fairly Common	
Marbled Murrelet	Downstream	Uncommon	IBA Trigger Species, Blue List
Rock Pigeon	Direct Use	Common	
Band-tailed Pigeon	Direct Use	Common	Blue List
Eurasian Collared Dove	Direct Use	Common	
Great Horned Owl	Upstream	Common	
Barred Owl	Upstream	Common	
Common Nighthawk	Direct Use	Fairly Common	Blue List
Black Swift	Direct Use	Fairly Common	Blue List
Vaux's Swift	Direct Use	Uncommon	
Anna's Hummingbird	Direct Use	Common	
Rufous Hummingbird	Direct Use	Common	
Belted Kingfisher	Direct Use	Common	
Red-breasted Sapsucker	Direct Use	Common	
Downy Woodpecker	Direct Use	Common	
Hairy Woodpecker	Direct Use	Common	
Northern Flicker	Direct Use	Common	

Pileated Woodpecker	Upstream	Fairly Common	
Willow Flycatcher	Direct Use	Common	
Pacific Slope Flycatcher	Direct Use	Common	
Northern Shrike	Direct Use	Uncommon	
Hutton's Vireo	Direct Use	Common	
Warbling Vireo	Direct Use	Common	
Steller's Jay	Direct Use	Common	
Northwestern Crow	Direct Use	Common	
Common Raven	Direct Use	Common	
Horned Lark	Direct Use	Rare	
Purple Martin	Direct Use	Common	Blue List
Violet-green Swallow	Direct Use	Common	
Northern Rough-winged Swallow	Direct Use	Common	
Cliff Swallow	Direct Use	Uncommon	
Barn Swallow	Direct Use	Fairly Common	Blue List
Chestnut-backed Chickadee	Direct Use	Common	
Bushtit	Direct Use	Common	
Red-breasted Nuthatch	Direct Use	Common	
Brown Creeper	Direct Use	Common	
Bewick's Wren	Direct Use	Common	
Pacific Wren	Direct Use	Common	
Golden-crowned Kinglet	Direct Use	Common	
Ruby-crowned Kinglet	Direct Use	Common	
Swainson's Thrush	Direct Use	Common	
American Robin	Direct Use	Common	
Varied Thrush	Direct Use	Common	
European Starling	Direct Use	Common	
American Pipit	Direct Use	Fairly Common	
Cedar Waxwing	Direct Use	Common	
Orange-crowned Warbler	Direct Use	Common	
Yellow Warbler	Direct Use	Common	
Yellow-rumped Warbler	Direct Use	Common	
Black-throated Gray Warbler	Direct Use	Fairly Common	
Townsend's Warbler	Upstream	Fairly Common	
Common Yellowthroat	Direct Use	Fairly Common	
Wilson's Warbler	Direct Use	Uncommon	
Western Tanager	Direct Use	Fairly Common	
Spotted Towhee	Direct Use	Common	
Chipping Sparrow	Direct Use	Fairly Common	
Savannah Sparrow	Direct Use	Common	
Song Sparrow	Direct Use	Common	
Lincoln's Sparrow	Direct Use	Common	
White-throated Sparrow	Direct Use	Rare	
White-crowned Sparrow	Direct Use	Common	
Golden-crowned Sparrow	Direct Use	Common	
Dark-eyed Junco	Direct Use	Common	

Black-headed Grosbeak	Direct Use	Common	
Brewer's Blackbird	Direct Use	Fairly Common	
Purple Finch	Direct Use	Common	
House Finch	Direct Use	Common	
Red Crossbill	Upstream	Fairly Common	
Common Redpoll	Direct Use	Rare	
Pine Siskin	Direct Use	Common	
American Goldfinch	Direct Use	Common	
Evening Grosbeak	Direct Use	Uncommon	
House Sparrow	Direct Use	Common	

In light of the preceding list, it can be seen that many species of birds utilize the rich and diverse habitat both terrestrial and aquatic that forms the French Creek Estuary.

As a dramatic example of bird use of French Creek, the Greater Yellowlegs in the photo below, a large sandpiper and one of many migrant shorebirds from different parts of the North American continent that used the estuary this fall captures a fish, a small sculpin species in French Creek close to the proposed conservation area.



Greater Yellowlegs feeding on a sculpin, French Creek Estuary. Christopher Stephens Photo. © 2018.

Restoration, Replanting & Community Value

The French Creek Estuary presents several key opportunities not only to understand, conserve and protect key bird habitat amongst surrounding resource, residential and commercial land uses but also to manage and improve habitat quality. The site contains riparian, shrubby habitats, woodland and foreshore habitats of high significance with potential for restoration as described in the author's Master of Community Planning Major Project production *Planning for Bird Habitat Protection: BC Guidelines for Local Governments, Developers & Planners* (Stephens 2017).

The site offers great potential for action and case study in terrestrial habitat protection and aquatic habitat protection. Conservation measures with birds in mind will also contribute significantly to aquatic habitat for fisheries and mitigation of erosion and flooding.

Native Plants to restore habitat will provide essential perches and foraging areas for birds seeking insect food sources, while native fruiting and berry bearing plants will provide cover, nesting areas and fruit sources of food. Seed bearing plants including grasses provide shelter for native songbirds.

Removal of invasives including Himalayan Blackberry and planting of native plants that are ecologically adapted to the site will significantly increase the value of the habitat to be acquired.

Degraded areas around the riparian zone of French Creek can become vastly improved by riparian plantings, which will also serve to shade and add nutrients to fish habitat.

Consider Black Cottonwood, Western Red Cedar, Bitter Cherry, Pacific Crab Apple, Mock Orange & Nootka Rose.

Native grasses and shrubs will also play an important role in improving the estuarine habitat.

Subject to restoration, greater net habitat value following restoration will improve the abundance, diversity and regular occurrence of bird species in the French Creek Estuary. The biophysical connection and shared benefit of conservation and management with restoration between shoreline and upland habitats will add value to the habitat.

In addition to direct use of terrestrial habitat by birds, protection of land-based habitat zones adjacent to watercourses themselves such as French Creek increase habitat value. Currently, the French Creek Estuary has lost much of its natural vegetation along the banks of the creek in the riparian zones of the estuary. A photo from the marina side across to towards the proposed conservation area shows habitat worthy of revegetation in the proposed acquisition area, along with forested habitats upstream.



Cross Section showing loss of vegetation on both banks, French Creek Estuary. Christopher Stephens Photo. © 2018.

In contrast, a precedent photo from the Millstone River in Nanaimo below shows an example of how revegetation could increase habitat values in select areas. Tree dependant water birds dwell here.



Millstone River with Thriving Vegetation. Precedent Photo. Christopher Stephens Photo. © 2018.

As the occurrence data shows, a great diversity of species pass through the French Creek Estuary. Currently, the footpaths going through the proposed acquisition site contribute to erosion and separate

wetland and riparian areas from upland habitats and add to disturbance in the riparian zones. Revegetation and construction of sensitively laid out pathways a little ways back from the bank edge and placement of a viewing stand, even a simple one with an Important Bird Area sign of the type seen in other parts of the Little Qualicum to Nanoose Bay Important Bird Area would limit disturbance and also put French Creek as a greater spot on the map. French Creek is already a draw to international birding visitors but greater presentation and sensitive access with signage would certainly add to its appeal and value as a conservation area within the IBA.

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