

## ***CANADA 9: ALAKSEN, BRITISH COLUMBIA***

### ***Information Sheet on Ramsar Wetlands***

**Effective Date of Information:** The information provided is taken from the List of Canadian Wetlands Designated as of International Importance, May 1982 updated by the Canadian Wildlife Service – Pacific and Yukon Region in October 2001.

**Reference:** 9th Ramsar site designated in Canada.

**Name and Address of Compiler:** Canadian Wildlife Service, Environment Canada, RR #1, 5421 Robertson Road, Delta, British Columbia, V4K 3N2.

**Date of Ramsar Designation:** 24 May 1982.

**Geographical Coordinates:** 49°06'N., 123°10'W.

**General Location:** Located in the Municipality of Delta, British Columbia, 40 km south of Vancouver.

**Area:** 586 ha.

**Wetland Type (Ramsar Classification System):** *Marine and coastal wetlands:* Type F - estuarine waters; Type G - intertidal mud, sand or salt flats; Type K - delta lagoon and marsh systems. *Inland wetlands:* Type Sp - permanent freshwater ponds, marshes and swamps.

**Altitude:** The site lies at - 1 m below sea level to 5 m.

**Overview (Principal Characteristics):** Comprises 70% of cultivated farmland, 15% freshwater and brackish tidal marsh wetlands, 5% woodland or grassland, and 5% built-up or barren shore flats.

**Physical Features (Geology, Geomorphology, Hydrology, Soils, Water, Climate):** The area is within the broad expanse of the Fraser River Delta as it enters the Pacific Ocean. The salinity of the intertidal zone is low owing to the influence of the freshwater of the Fraser River which flows into the area. The soils are saline Gleysols which have developed from the medium deltaic deposits.

**Ecological Features (Habitats, Vegetation):** The three main vegetational types on the intertidal zone are the cattail, sedge and bulrush communities. The cattail community comprises cattail *Typha* spp., Lyngbye's sedge *Carex lyngbyei* and water plantain *Alisma plantago-aquatica*. The sedge community comprises Lyngbye's sedge in association with bent grasses *Agrostis* spp. and round-stemmed bulrush *Scirpus validus*. The bulrush community which is completely submerged at high tide is dominated by three-square bulrush *Scirpus americanus* with some round-stem bulrush. In addition to the commercial crops, there are grasses such as bent grasses *Agrostis* spp. velvet grass *Holcus lanatus*, Canada blue grass *Poa compressa* and smart weeds *Polygonum* spp. These grasslands and the crop remnants provide food for waterfowl especially in winter when the fields are semi-flooded. On higher and well-drained sites are red alder *Alnus rubra*, willow *Salix* spp. and black cottonwood, with

shrub communities of snowberry *Symphoricarpus albus*, salmon berry *Rubus spectabilis* and blackberry *Rubus* sp. These thickets provide good habitat for pheasants and passerines.

**Land Tenure:**

**(a) Site:** The site comprises 586 ha, 300 ha of which includes the Alaksen National Wildlife Area owned by the Government of Canada. An adjacent part is the George C. Reifel Refuge, 280 ha of which is provincial Crown land, 110 ha federal Crown land which in part overlaps with the Alaksen National Wildlife Area; and 11 ha of federal Crown land owned by Transport Canada but also designated and managed as migratory bird sanctuary land. The Reifel Refuge is designated as a Migratory Bird Sanctuary under the *Migratory Birds Convention Act* of 1917. The Reifel Refuge is managed by the British Columbia Waterfowl Society.

**(b) Surrounding Area:** The site is surrounded by lands and waters of the Fraser River in a natural state and by diked farmlands.

**Conservation Measures Taken:** The National Wildlife Area lands are protected under the *Canada Wildlife Act* of 1973. Areas designated as Migratory Bird Sanctuary are protected under regulations of the *Migratory Birds Convention Act* of 1917. Management of the undiked portion of the entire Fraser River delta is within the framework of the multilateral/intergovernmental Fraser River Estuary Management Program which is aimed at sustaining the Delta's natural productivity.

**Conservation Measures Proposed:** Adjacent intertidal foreshore and riverine islands are currently, or are in the process of being, designated as protected wildlife habitat pursuant to the *British Columbia Wildlife Act* of 1982.

**Current Land Use/Activities in:**

**(a) Site:** The farmland portion is protected by dikes and produces crops of potatoes, hay, barley, cabbage and turnips. Control of water levels, agricultural practices, and public access is carried out by Alaksen National Wildlife Area staff. Crops are grown for waterfowl use under share-cropping agreements with local farmers.

**(b) Surrounding Area:** Farmland and encroaching major urban development surround this area. Management of the undiked portion of the Fraser River Delta is undertaken by the Fraser River Estuary Management Program.

**Threats to Integrity of:**

**(a) Site:** Pollution by toxic substances from adjacent areas is a potential threat.

**(b) Surrounding Area:** Loss of surrounding farmland to urbanization remains a major source of impacts.

**Hydrological/Physical Values:** The freshwater bodies in the farmland are about 2-3 m deep and are valuable wintering areas which seldom freeze over for more than three weeks.

**Social/Cultural Values:** The area is one of the few remaining wetland and tidal zone areas accessible to the major urban population of the Vancouver region. It promotes major public education program at the G.C. Reifel Wildlife Refuge in the area.

**Noteworthy Fauna:** The area provides winter staging, feeding and breeding habitat for many species of western North American waterfowl, and supports one of the largest wintering waterfowl populations in Canada comprising 40 species of ducks, geese and swans. The most common species are Canada Goose *Branta canadensis*, Mallard *Anas platyrhynchos* and American Wigeon *Anas americana*. About 25 000 ducks, 25 000 geese (15 000 Canada Geese and 20 000 to 30 000 Lesser Snow Geese *Anser c. caerulescens* that breed on Wrangel Island, Russian Republic) and 100 000 shorebirds winter in the Delta.

Raptors occur in high numbers in winter months, when Goshawk *Accipiter gentilis*, Sharp-shinned Hawk *Accipiter striatus*, Kestrel *Falco sparverius*, Merlin *Falco columbarius*, Peregrin Falcon *Falco peregrinus*, Gyrfalcon *Falco rusticolus*, and Rough-legged Hawk *Buteo lagopus* can be commonly seen. Mild winters with snow-free fields that abound with rodents also attract large numbers of owls including the Barn Owl *Tyto alba*.

The deciduous woodlots also provide an important habitat for many species of songbirds.

#### **Noteworthy Flora:**

**Current Scientific Research and Facilities:** Studies are in progress of the use birds make of different parts of the site. Environment Canada regional offices and laboratories, comprising several buildings, trailers and sheds as well as barns are within the boundaries of this area.

**Current Conservation Education:** A public education and interpretation facility is located on the Reifel Wildlife Refuge, operated by the British Columbia Waterfowl Society, a non-governmental organization. The refuge area includes trails, artificial ponds and an observation tower.

**Current Recreation and Tourism:** Nature trails provide access through the National Wildlife Area that complement public trails and facilities in the Reifel Refuge nearby.

**Management Authority:** Administered by the Canadian Wildlife Service, Pacific and Yukon Region, Environment Canada. The National Wildlife Area and the Ramsar site are administered by:

Canadian Wildlife Service  
Environmental Conservation Branch  
Pacific and Yukon Region, Environment Canada  
R.R. #1, 5421 Robertson Road  
Delta, British Columbia  
V4K 3N2

**Jurisdiction:** Federal - Environment Canada; Provincial - British Columbia Ministry of Environment, Lands and Parks.

#### **Selected Bibliography:**

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**Reasons for Ramsar Designation:** The Alaksen Ramsar site is a major Pacific Flyway site for migratory waterfowl and shorebirds; an excellent example of deltaic and coastal tidal wetland environments; the largest migratory bird wintering are in Canada; and the largest estuarine habitat on the Pacific coast of Canada.

**Status of Management Plan:** A *Management Plan* has been in existence for the Alaksen National Wildlife Area since April 1986. It has been used by Environment Canada to guide management activities of this portion of the Ramsar site since that time. It was determined this plan had become out of date; hence, in 1993, Environment Canada initiated the preparation of a revised plan to reflect current needs, goals and objectives. In May 1993, a draft *Revised Management Plan* covering the Alaksen National Wildlife Area and adjoining George C. Reifel Bird Sanctuary was prepared and circulated to stakeholders. The revised plan has three components: *Management Guidelines*, an *Agricultural Management Plan*, and an *Integrated Management Plan for Wildlife and Agriculture*. Public consultation sessions have been held and a final document reflecting public input was completed in 1995. The management plan is currently being revised and a new plan will be in place in 2002.