

## BIG EAST RIVER DELTA

UTM Ref. 17TPA360220

Chaffey Township, Huntsville  
Status: Recommend Heritage Area

Area: 297 ha

### *Site Characteristics*

This delta is located at the end of the Big East River hydrological system, which is the largest of the two rivers feeding into the North Muskoka River.

The active delta is set between ridges and knobs of the underlying gneissic bedrock, which support Sugar Maple-Red Maple successional deciduous stands. The heavy sediment load carried by the river is deposited as levees as it meets the deeper waters of Lake Vernon. These levees project as spits into the Lake supporting a late successional deciduous swamp forest of Red and Silver Maple and White Birch, with Green Ash and White Elm as secondary species. Soils are alluvial in origin and include glaciolacustrine fine-grained and coarse-grained deposits of fine sand, silt and clay.

Waterlogged organic and sandy peats have accumulated in the numerous oxbows and abandoned river channels in the delta. These areas support Speckled Alder thicket swamps, a grass marsh and a Leatherleaf shrub bog. Mesic to wet-mesic mixed woodland communities occur along the banks of the river and are dominated by White Spruce-Balsam Fir shrub-rich forests and Eastern White Cedar-Red Maple herb-rich swamp forests.

Nearshore waters at the mouth of the delta support an extensive deep emergent marsh dominated by Bayonet Rush. Shallow emergent marsh vegetation occurs along the shallow, sandy shorelines and emergent sandbars. Floating and submerged aquatic vegetation occupies the deeper waters of the river channel and in sheltered embayments along the river and lake.

### *Flora and Fauna*

Total numbers of species recorded were:

Vascular Plants	295 native ; 29 introduced 3 A.C.P.F. with a score of 14 (Low)
Birds	72 observed during breeding season
Mammals	8 (6 from small mammal trapping)
Herpetofauna	10
Butterflies	1
Dragonflies	9
Mushrooms	1
Fish	1

### *Significant Natural Values and Selection Criteria Met*

1. **Distinctive Landform** - (A1) The East River Delta is the best example of a highly active, modern delta formation within the District Municipality of Muskoka.

2. **Representation** - (B1) The deep emergent marsh vegetation consisting of an extensive (approx. 19 ha), virtually pure stand of Bayonet Rush (*Juncus militaris*) (normal/sand/very wet), is unique to Muskoka. This community type, may constitute the largest representation of its type in the province and adds to the full range of biotic representation in Muskoka.

The East River Delta has also been evaluated as a provincially significant wetland complex (OMNR, 1992) with a recommendation for ANSI status (Brunton, 1991 b).

3. **Diversity** - (B2) The total number of plant species related to the size of the area is higher than expected for Muskoka as shown on Figure 1. The area also supports a high diversity of birds.

4. **Rare Species** - (B4) The East River Delta provides habitat for the following rare species:

**Wildlife**

*Agrion aequabile* Black-banded Band Wing Dragonfly [RR]

*Microsorex hoyi* Pygmy Shrew [PR]

*Empidonax traillii* Willow Flycatcher [RR]

*Buteo lineatus* Red-shouldered Hawk [NR PR]

*Dendroica tigrina* Cape May Warbler [RR]

**Vascular Plants**

*Elymus virginicus* Virginia Rye [RR]

*Potamogeton nodosus* Pond Weed [RR]

*Triadenum virginicum* Marsh St. John's Wort [PR]

*Trillium cernuum* Nodding Trillium [RR]

In addition, one mammal, one bird and fourteen species of vascular plants were recorded as regionally uncommon.

5. **Fish and Wildlife Concentrations** - (B5) The aquatic plant communities along the river mouth and adjacent lakeshore provide spawning habitat for Rainbow Trout and excellent potential habitat for Northern Pike spawning and rearing.

6. **Size and Linkage** - (B6) The East River Delta is the southern terminus of the Big East River which forms a sheltered corridor for the movement of aquatic and terrestrial life across northern Muskoka.

7. **Biogeographic Significance** - (B7) A number of species typically associated with rich riparian woodlands of the southern Great Lakes-St. Lawrence Forest Region were found in the East River Delta area, including Silver Maple, Virginia Rye Grass and Bristly Greenbrier.

The large population of Nodding Trillium, a northern species of relatively rich floodplain habitats, is of regional significance. Its location in the understory of the deciduous swamp forest on the spit may represent the largest population of this species in Muskoka.

A minor Atlantic Coastal Plain Flora element is present in the flora of the East River Delta, represented largely by the population of Bayonet Rush.

### *Ownership and Disturbance*

The area is privately owned. Most of the residential and cottage development is along the road on the southern boundary of the site and along the river upstream from the delta. Much of the delta feature is relatively undisturbed. However, a footpath which parallels the north bank of the river and an associated picnic site near the tip pose some threat to the population of Nodding Trillium. Soil compaction along the numerous subsidiary trails radiating from the picnic site was noted, along with some evidence of browsing by deer. Of the plant species recorded, 8.9% were introduced species.

### *Sensitivity*

The sensitivity of this site is related to the wetland ecology of the delta. Provincial policy guidelines related to the protection of wetlands should be followed.

### *Major Sources of Information*

Bajc, & Henry, 1991; Brunton, 1991 b; District Municipality of Muskoka, 1985 Sensitive Areas Schedules; O.M.N.R. Wetland Evaluation, 1992; Reid, et al., 1991.