APPENDIX M

Excerpts from TOWARDS THE IDENTIFICATION OF EINVIRONMENTALLY SENSITIVE AREAS FOR ENVIRONMENTAL MANAGEMENT: A CASE STUDY IN THE SACKVILLE RIVER WATERSHED, NOVA SCOTIA By Rhea D. Mahar, Department of Geography, Saint Mary's University, 1994

Pages 34 to 36:

"(ii) History of Human Settlement

This section is sourced from Simmons et al. (1984) and Coakley (1988).

Although the first Paleo-Indian campsite remains have been discovered at Debert, N.S., dated at 11,000 years ago, between 10,000-5,000 years ago there is a lack of evidence of human occupation of the province. Dramatic fluctuations in sea level and a minor local glacial period are thought to be explanations. People would have settled on shorelines which are now under the sea. Igneous rock axes of the period between 5,000-3,500 years ago provide evidence of Native populations in Halifax and Hants counties, among others (Simmons et al.,1984).

For at least 5,000 years Mi'kmaq paddled down the Sackville River in spring, to the Bedford Basin. Fish were caught and dried for winter storage. Salmon, gaspereaux, lobster and other seafood were also caught. Seasonal gathering of berries, nuts, and roots altered the landscape very little (Coakley, 1988).

The "Contact Period" began around 1500 A.D. when Portuguese and Basque fishers would spend summers on the shores of Bedford Basin curing fish and trading with Mi'kmaq (Simmons et al.,1984).

1604-1755 AD, The Acadian Period: Since the Acadians dyked marshland and did little to disturb Mi'kmaq forest lands, the two groups lived quite harmoniously. French farmers settled near the mouth of the Sackville River in the area now occupied by Bedford Place Mall. The marsh had been dyked for hay and crops. The pasture nearby was for grazing livestock; cattle, hogs and poultry. The Acadians built two trails in the 1600's; one to the Minas settlements and one to present-day Truro, then on to New Brunswick. With the expulsion of the Acadians in 1755 and the subsequent colonization of the now British colony, pressure ensued on the land between settlers and Mi'kmaq, the first people. In 1783, hunting reserves were established for Mi'kmaq. These were inadequate for their needs.

Bridges, mills, Fort Sackville, churches, farms and estates were soon erected in the watershed. The stagecoach era from 1800-1858 sported several Inns along the road to Windsor.

1851 AD - Today, Industrialization and Urbanization Period: This era has been condensed together since we are essentially still proceeding in the same fashion but equipped with more progressive technology. At the turn of the century, the Sackville River was used extensively for moving logs to booms on the Bedford Basin (Figure 9). Sawmills used the River to turn waterwheels and to transport logs. The discovery of gold at Mount Uniacke in 1865 fostered the building of a town. The open pit mines there operated sporadically until the 1930's. A fish hatchery was established at the river's mouth in 1873. Not only did it stock the Sackville River, but it stocked all of Nova Scotia at one time (Figure 4). The Sackville River once was teaming with fish which were "packed like sardines" (Coakley, 1988, p.2I), but two

hundred years of increasing urban development have caused a steady decline in returning runs almost to the point of extinction. Erosion, siltation, nutrient enrichment from domestic and industrial effluents, fluctuating water levels, increased water temperature, and lower pH have adversely affected the river system's ability to sustain Atlantic Salmon (Cameron, 1990).

Urbanization in the Bedford-Sackville area began with the development of pastureland in 1929 on the east bank of the River for the building of Sunnyside place (Figure 6). This was the first in a development pattern which was to see a linear strip of malls, stores, gas stations and other services along Hwy 1.

Suburban residential housing, beginning in the 1960's (Coakely, 1988), caused an increase in sedimentation to the river, destroying fish habitat. As a result of this, the fish hatchery at the mouth of the river closed down in 1961 (Figure 10).

The watershed hosted several quarries. The river itself was readily utilized as a source of aggregate sand and gravel. Gravel washings were poured back into the river. Animal manure from the Sackville Downs race track also caused contaminated runoff to flow into the Little Sackville River.

More recently, some fairly aggressive development projects have further manipulated the river. In 1971, the river was moved aside for the construction of the 101 highway. Bedford Place Mall was built over a saltmarsh near the river's mouth in 1977. In that same year the Halifax-Dartmouth Metropolitan Authority began the Sanitary Landfill operation near the river, two-and-a-half kms north of McCabe Lake. The pattern of urban residential development sprawl continues.