



OTN Canada - Project Plan

Bras d'Or Lakes

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1. Background

Array Name: *Bras d'Or Lakes Array*, Cape Breton, Nova Scotia, Canada

Concept: Use OTN theory and technology to determine the ecological connections between Canada's inland sea (the Bras d'Or estuary of Cape Breton), its watershed, the Scotian Shelf, the Gulf of Saint Lawrence and the NW Atlantic Ocean. Fully instrument the sites of exchange between the major river catchments of the watershed and the estuary; the channels linking the major basins of the estuary, and all channels of exchange between the estuary and the surrounding ocean. Acoustic tag motile anadromous, catadromous and marine species of significance (e.g. Atlantic Salmon, American Eels, Atlantic Cod) in rivers, bays, banks and basins of the Bras d'Or. Track their movements within the estuary and its watershed, and between the estuary and the surrounding OTN arenas of the NW Atlantic Ocean.

2. Initial Array Design

a. Equipment and Services:

I. Dalhousie will provide:

- i. 15 acoustic receivers: Vemco VR2W-069k-100, with lithium batteries
- ii. 3 VR2W upload cables.

II. *partner* will provide:

- i. Moorings,
- ii. Boat time for initial deployment,
- iii. Qualified personnel for initial deployment (including divers if necessary),
- iv. Boat time for maintenance and uploading of data,
- v. Replacement batteries for acoustic receivers,
- vi. Range testing boat time with dedicated technical staff.

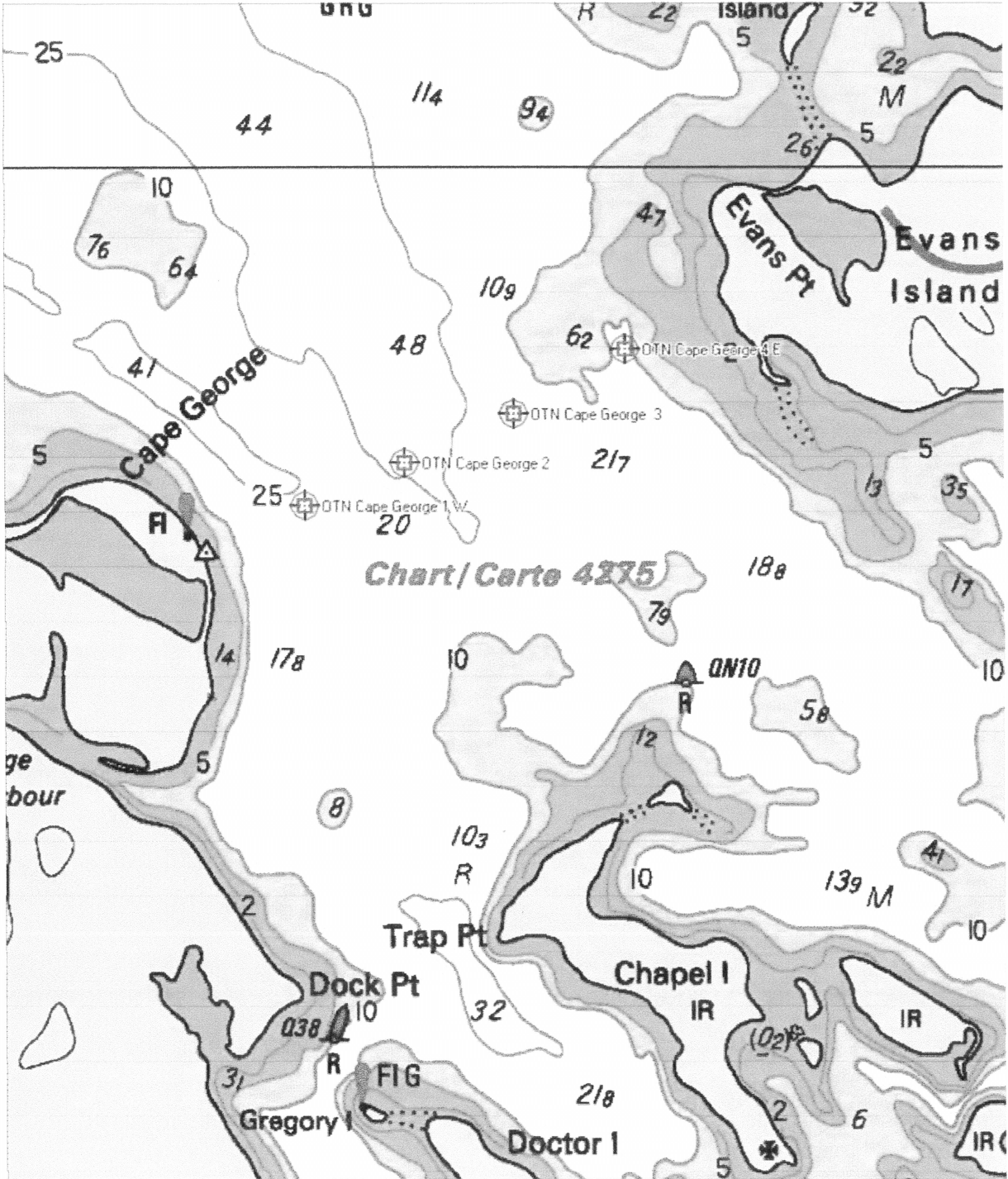
b. Proposed Array Location:

The *Bras d'Or Lakes Array* will be located throughout the Bras d'Or estuary, including all channels connecting the estuarine waters to those of the surrounding ocean, the channels connecting the major basins of the estuary, and the mouths of the main rivers flowing into the estuary. The initial array is composed of 15 stations (Stage-1 deployments: see maps below). An additional 11 sites are proposed for subsequent years, depending on the results obtained during the first tagging experiments. Details of the deployment geometry (spacing between stations and depth of receivers) are for illustrative purpose as changes may be required upon analysis of the test phase data.

Bras d'Or Stations 22-25: Cape George West-East (Stage-2)

Monday, December 13, 2010

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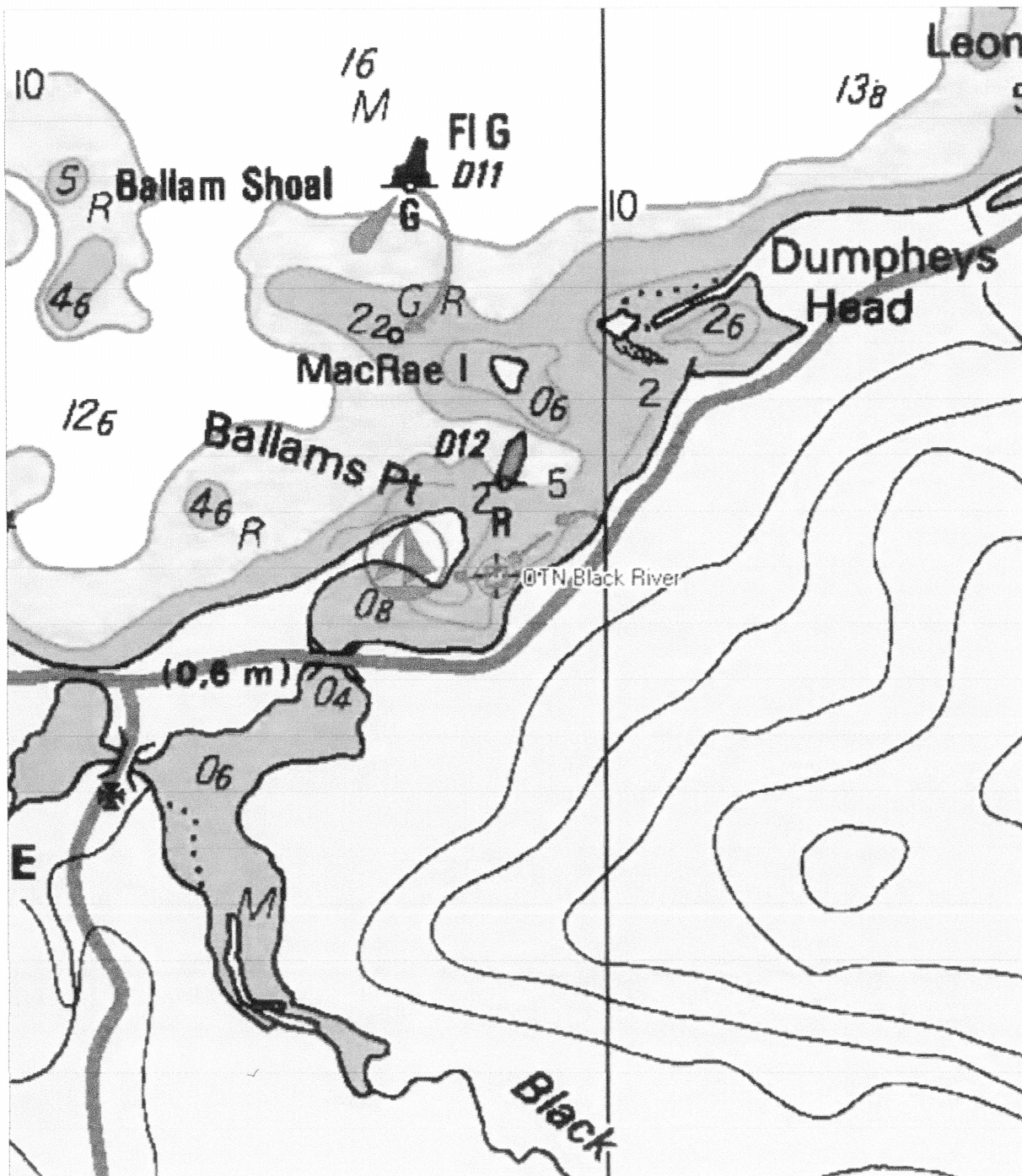


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Bras d'Or Station 26: Black River (Stage-2 deployment)

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