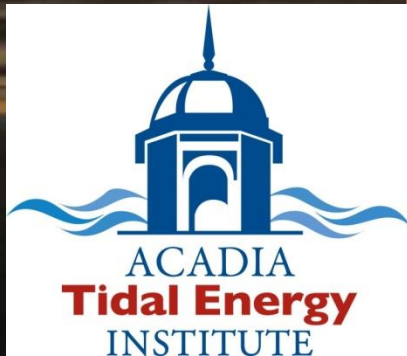


A Century of Tidal Power Investigations in the Bay of Fundy



Graham R. Daborn
Acadia Tidal Energy Institute
Acadia University

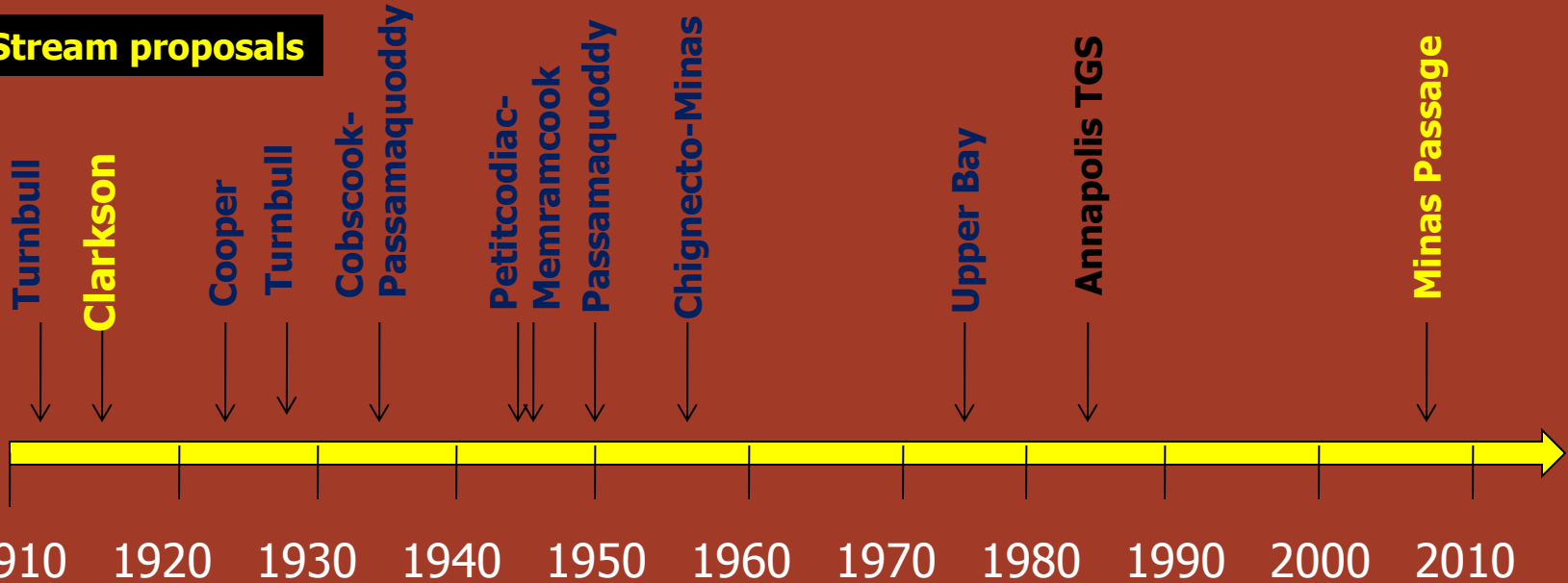


Annex IV Webinar
27 October 2014



Bay of Fundy Tidal Power Proposals

Tidal Stream proposals



Research programmes

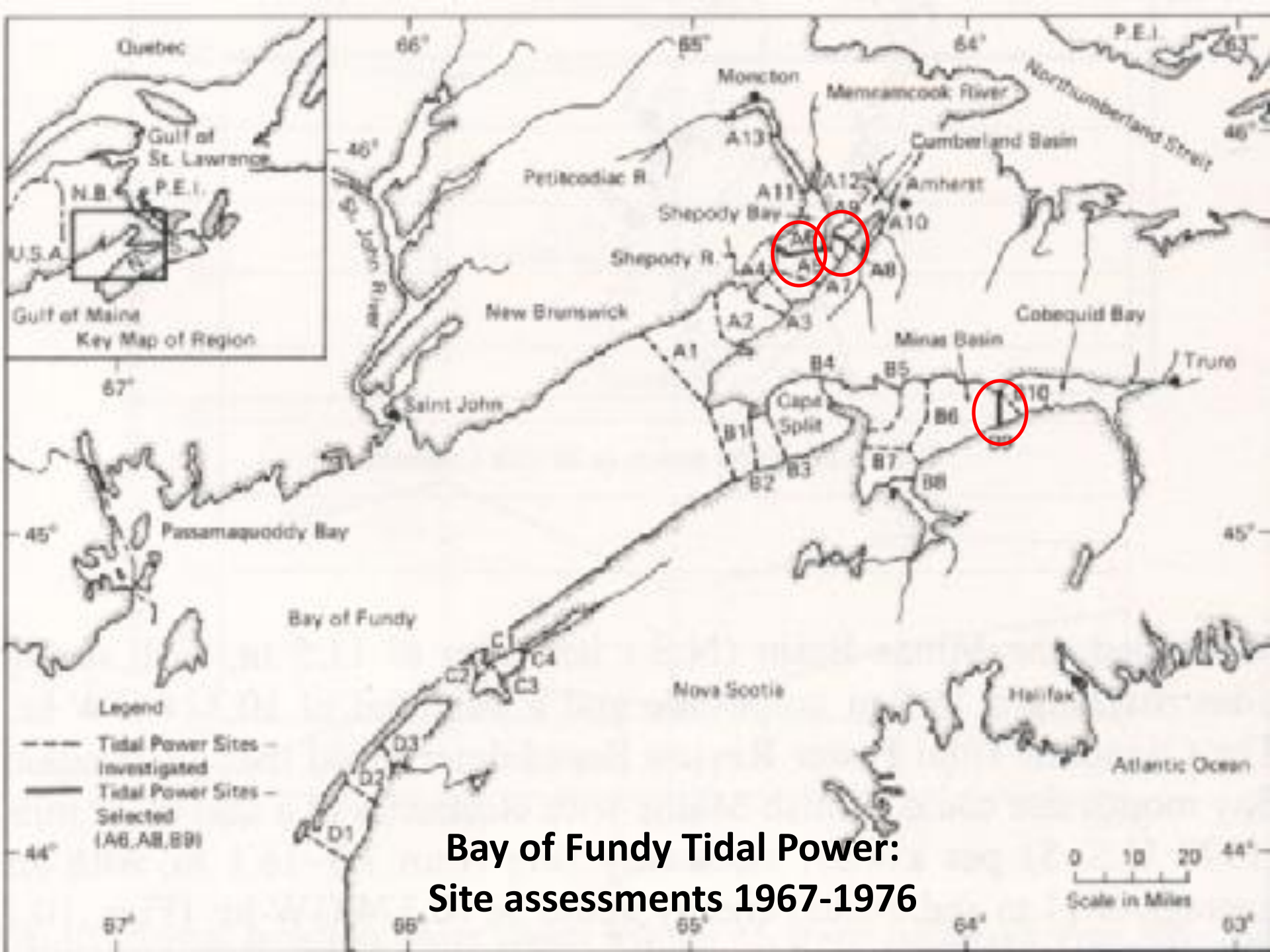
Int. Passamaquoddy Investigations

Fundy Environmental Studies Committee

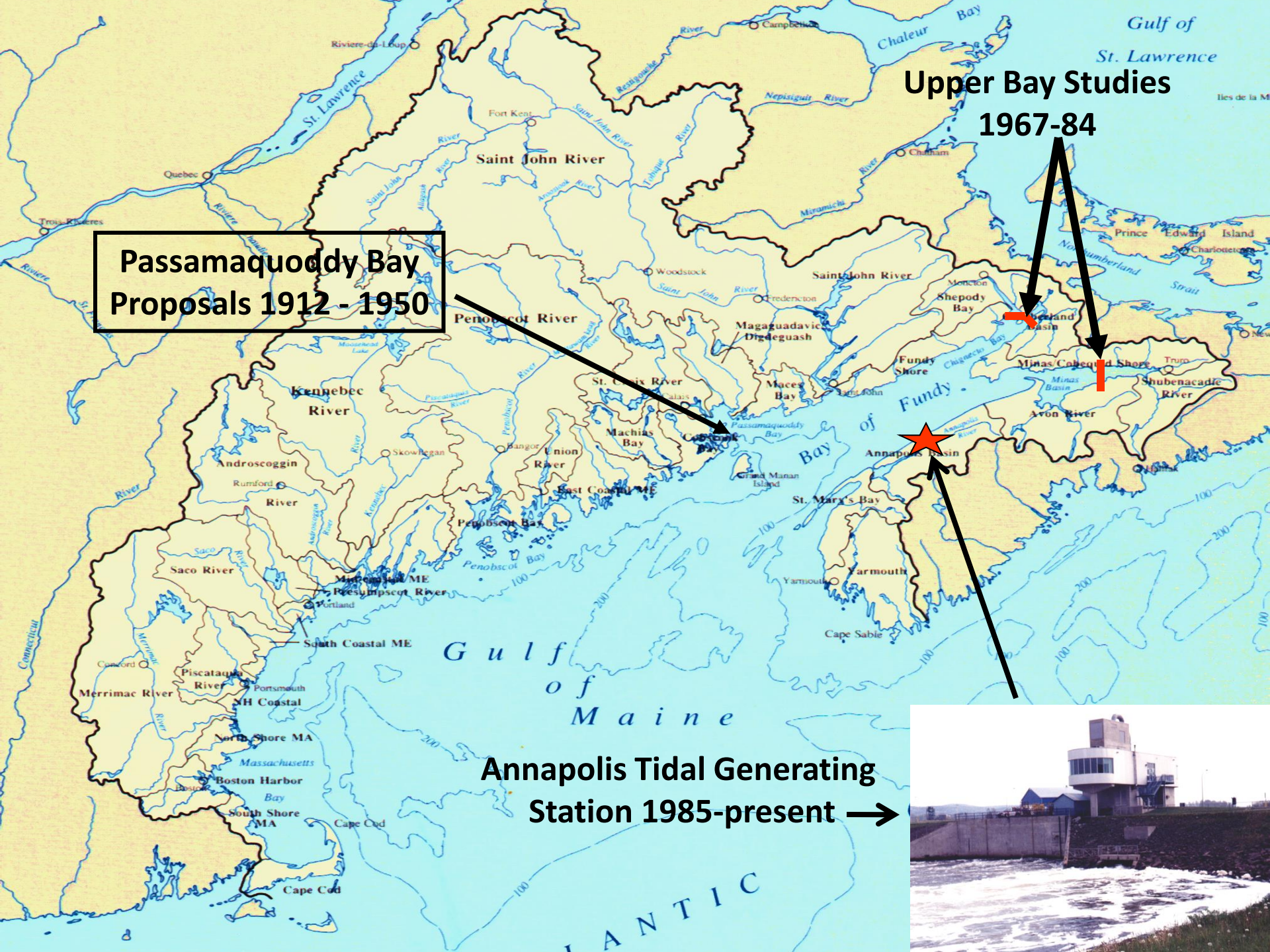
Acadia Centre for Estuarine Research

Fundy Energy Research Network

Tidal range (Barrage) proposals



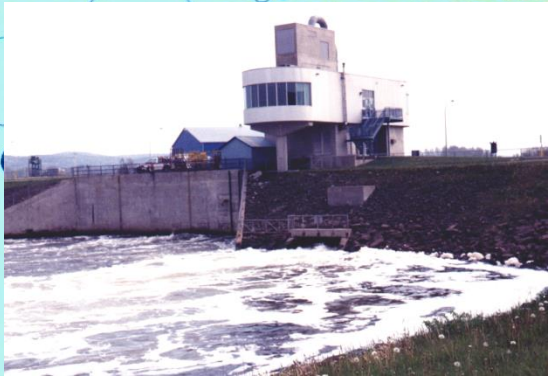
**Bay of Fundy Tidal Power:
Site assessments 1967-1976**

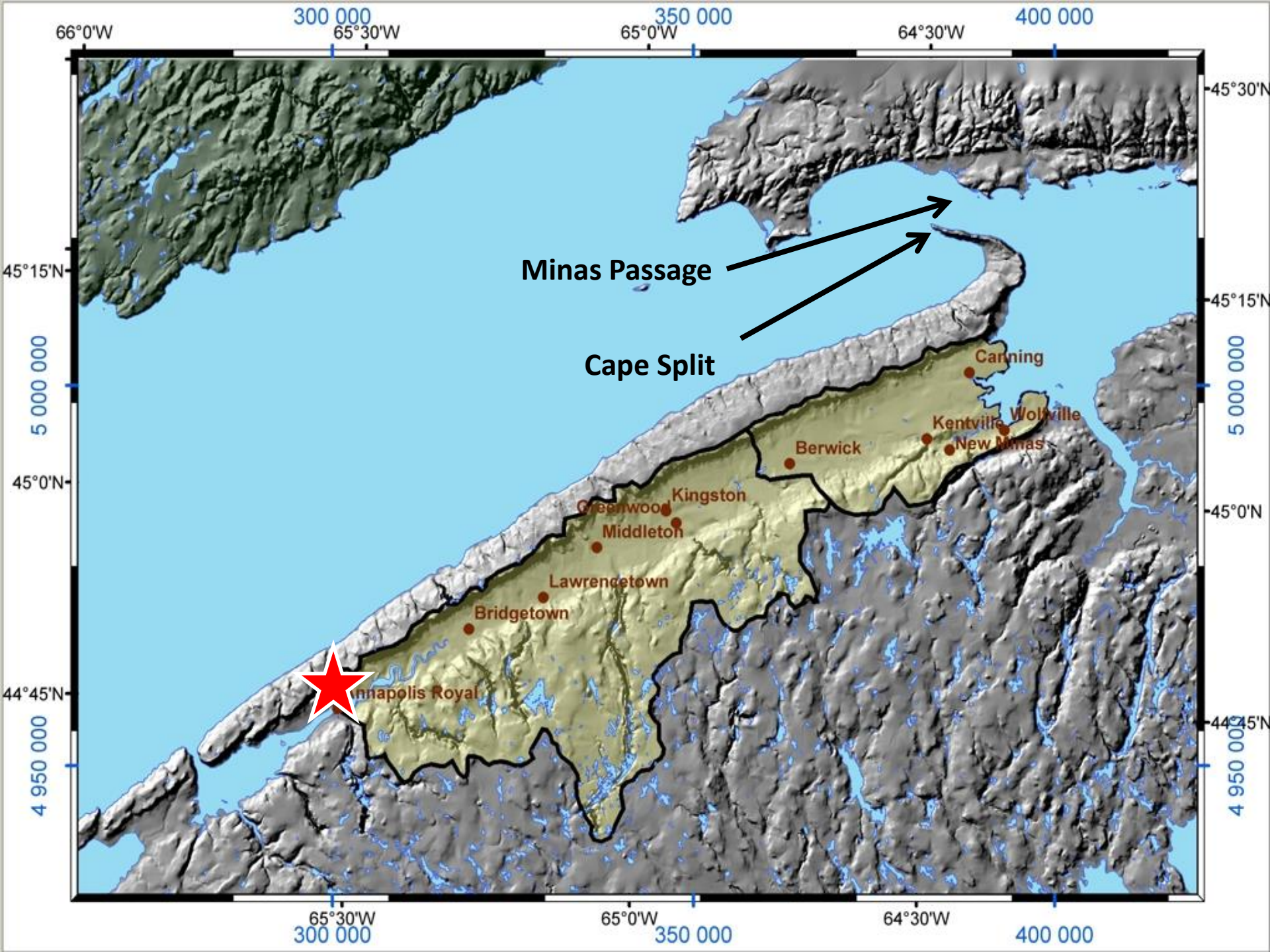


**Passamaquoddy Bay
Proposals 1912 - 1950**

**Upper Bay Studies
1967-84**

**Annapolis Tidal Generating
Station 1985-present** →

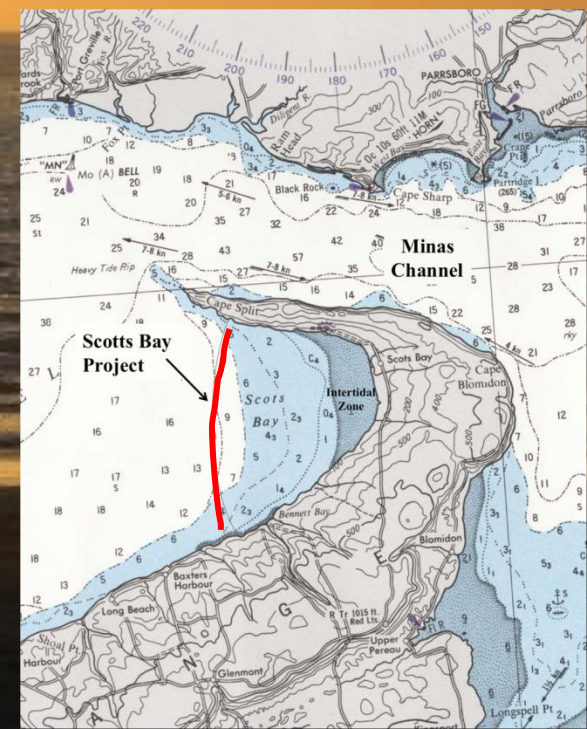
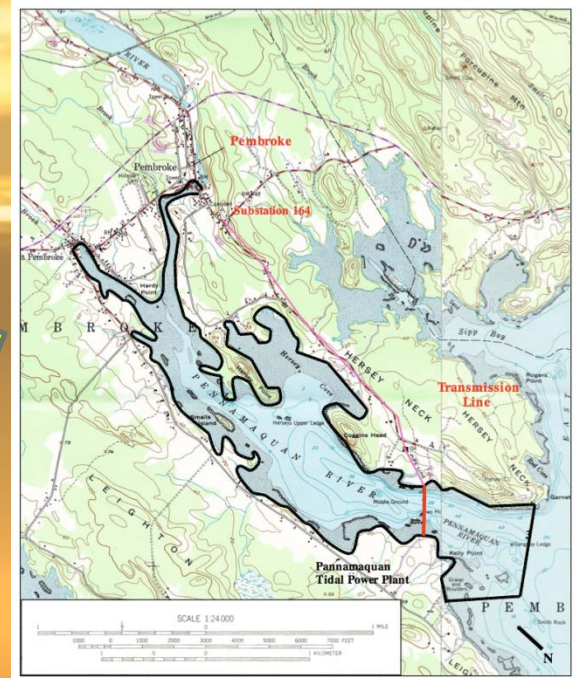




Contemporary Tidal Range Concepts

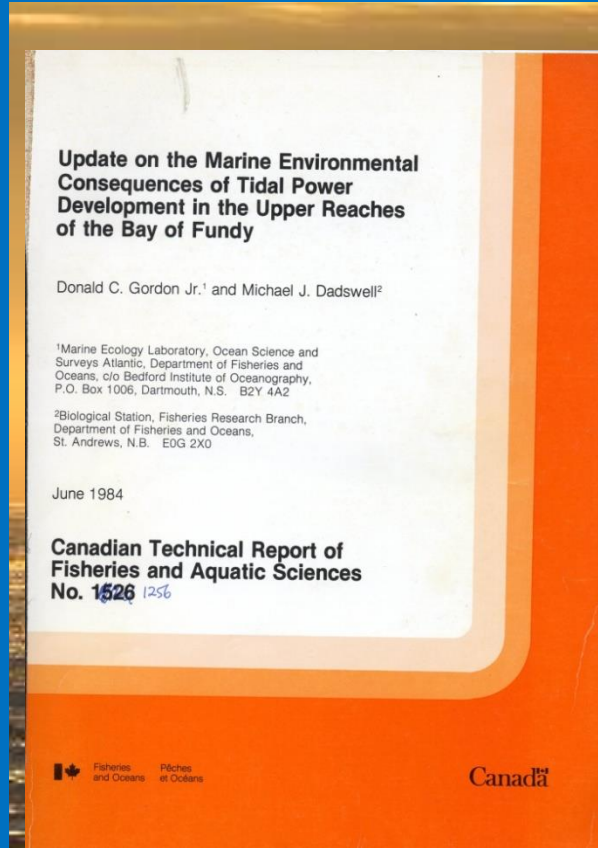


- Pennamaquan Tidal Power Plant, Cobscook Bay, Maine:
 - 21 MW plant in 500 m long barrage.
- Scots Bay Tidal Power Project, Nova Scotia:
 - 1100 MW plant (304 turbines) in 10 km structure enclosing 39 sq. km. basin.



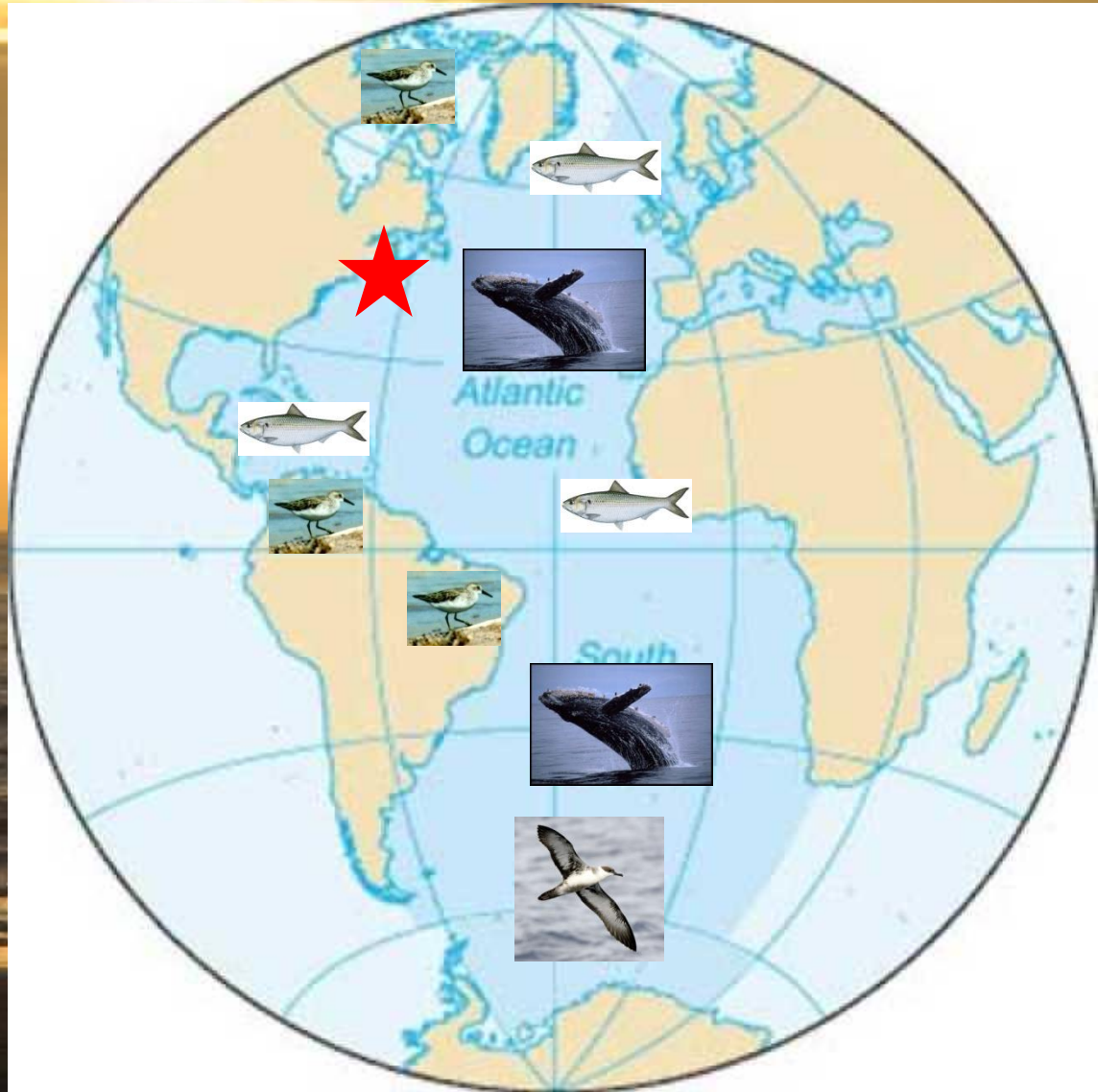
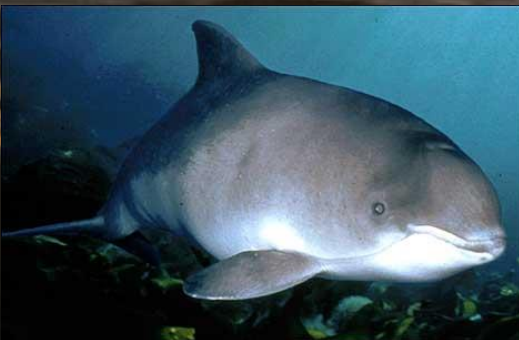
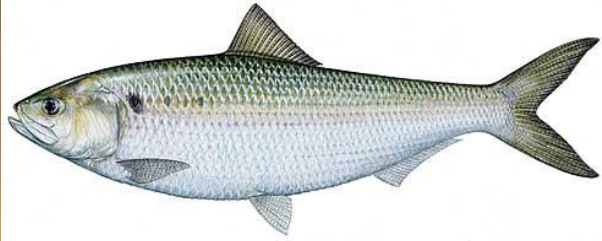
What we have learned (1976- present):

- Effects on tidal range
- Effects on fish
 - Migratory & resident
- Effects on sediments
- Effects on benthos
- Effects on birds
- Effects on primary production
- Effects on mammals
- Biological Connections



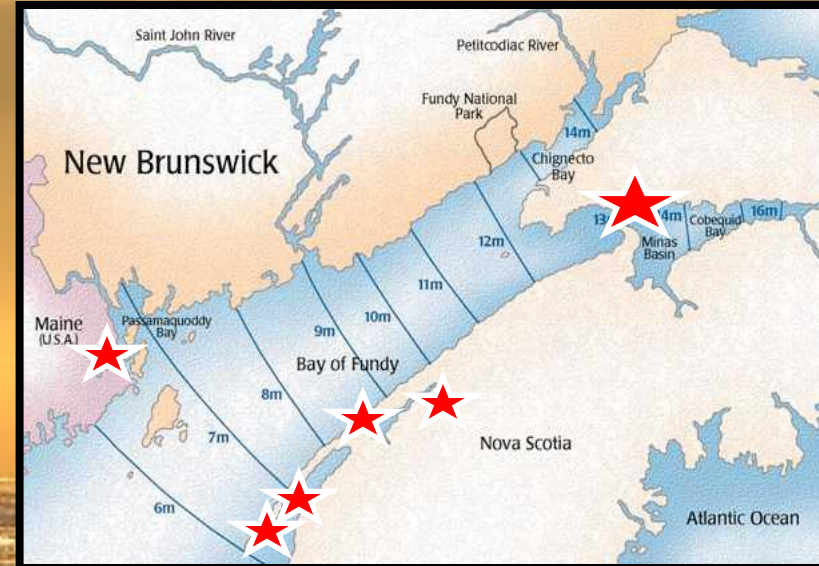
Fundy's Biological Connections

Migratory fish,
Birds & Mammals



Fundy Tidal Power in the 21st Century

- Shift to emphasis on tidal stream proposals.
- Establishment of Fundy Ocean Research Centre for Energy (FORCE) and test site in Minas Passage 2009.
- Test sites: Grand Passage, Petite Passage, Digby Gut.





FERN
FUNDY ENERGY RESEARCH NETWORK

Fostering Collaborations in Tidal Energy Research



**Working Together to Advance Knowledge on the
Environmental, Engineering & Socio-economic Factors
associated with Tidal Energy Development in the Bay of Fundy**

Please visit our website: <http://fern.acadiau.ca>

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Join us today. Membership is free