

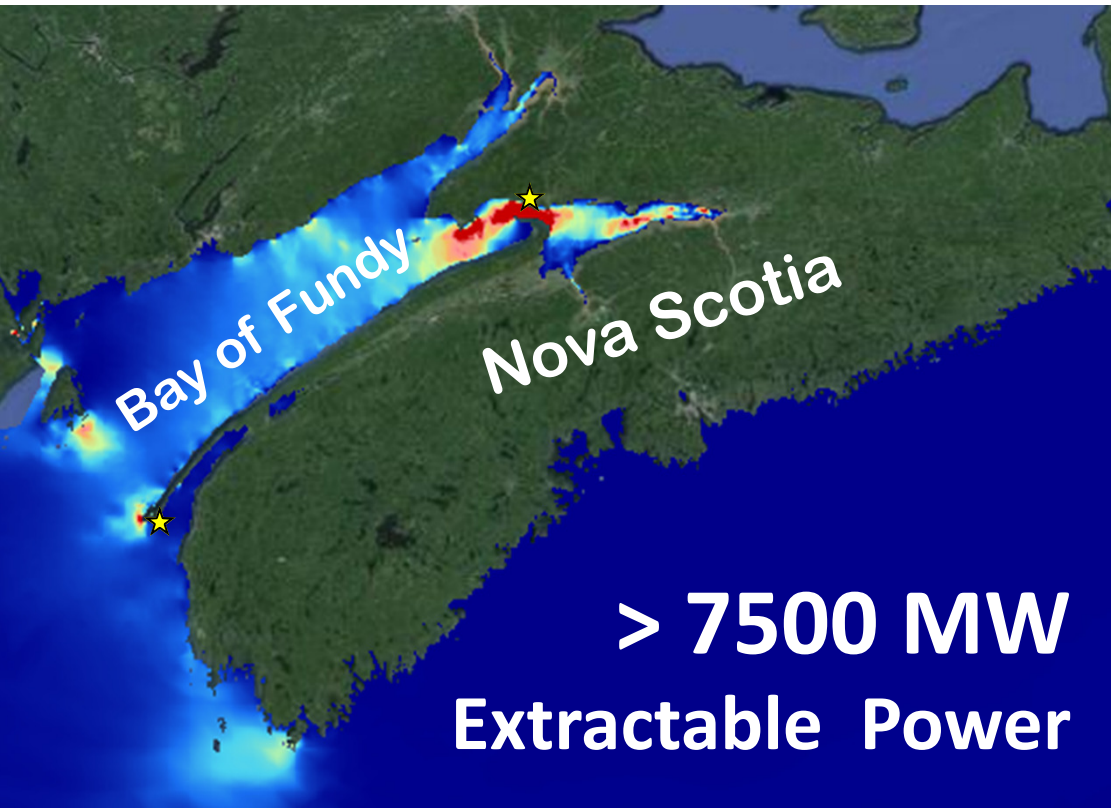
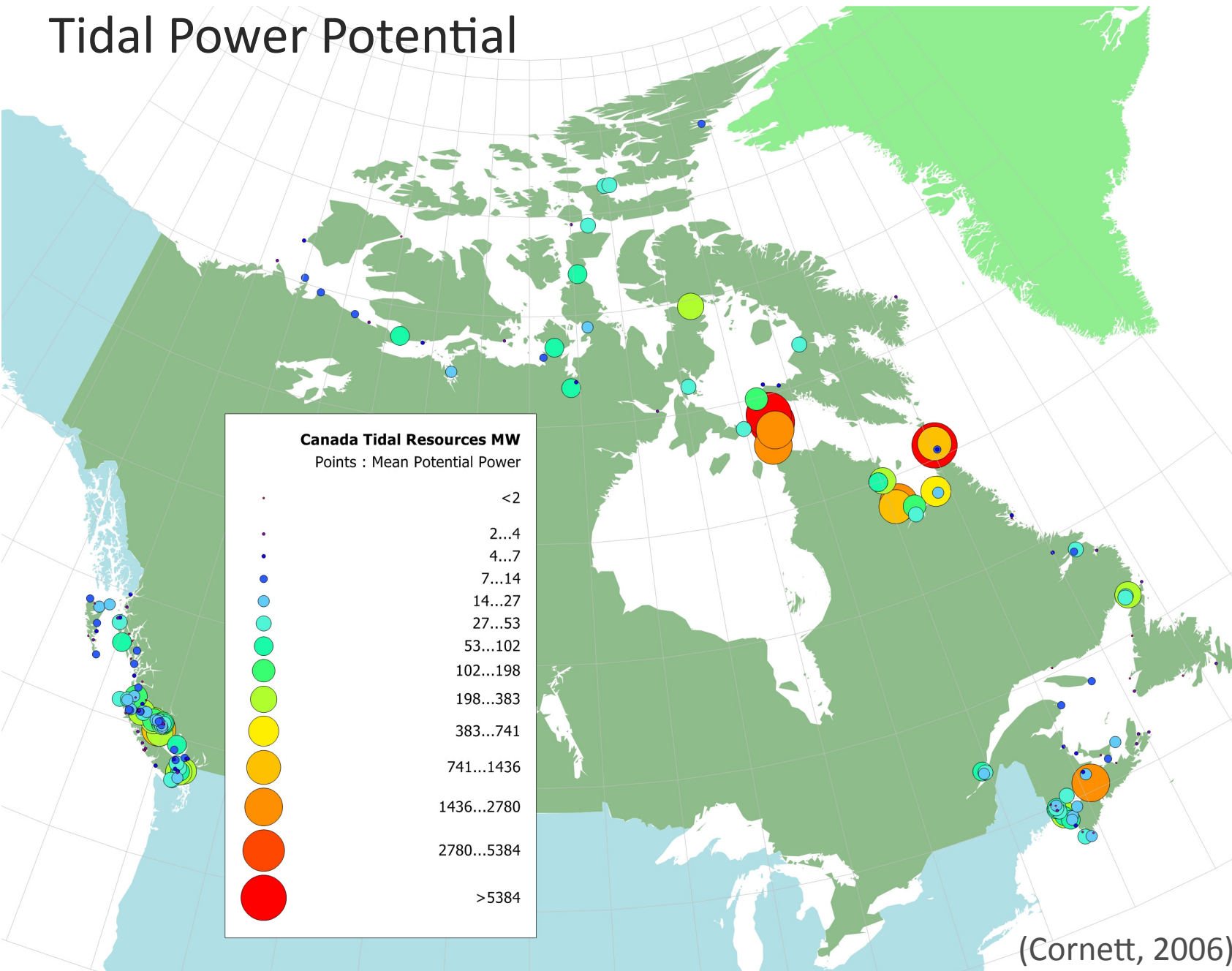
THE WORLD'S LARGEST TIDES : ASSESSING CANADA'S TIDAL ENERGY OPPORTUNITIES



Canada has significant tidal energy resources on all three coasts and is positioned to be an international leader in tidal power development. Acadia University researchers are supporting these efforts with assessments of both the tidal resources and the effects of harnessing the energy of tides at high flow sites in the Bay of Fundy, NS.

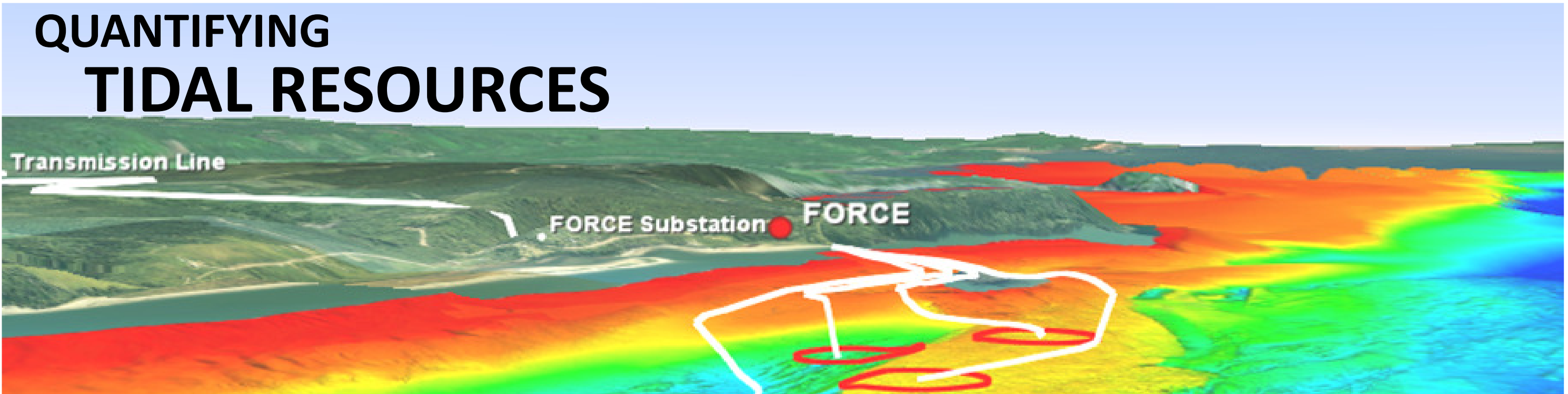
CANADA'S OPPORTUNITY

Tidal Power Potential

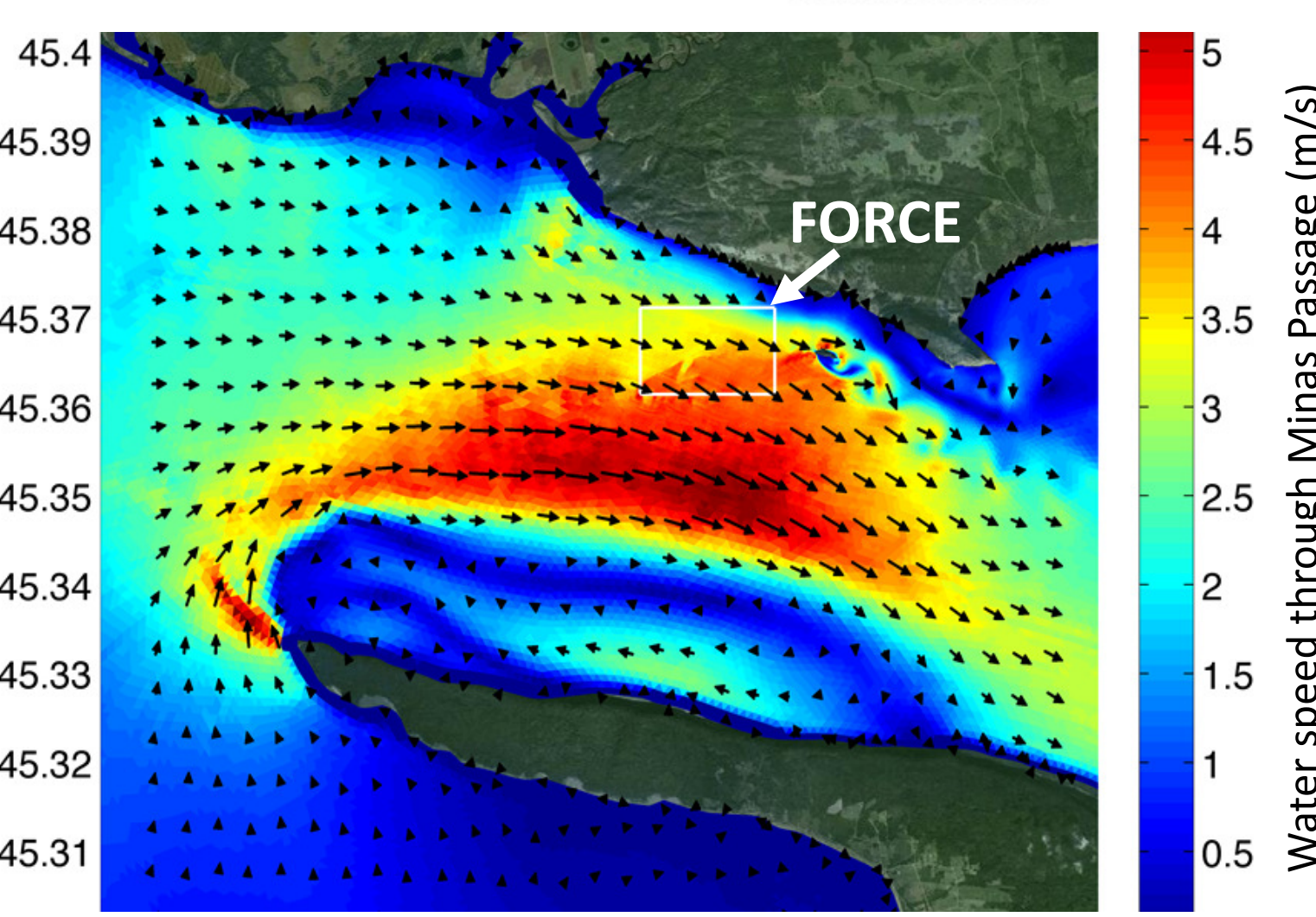
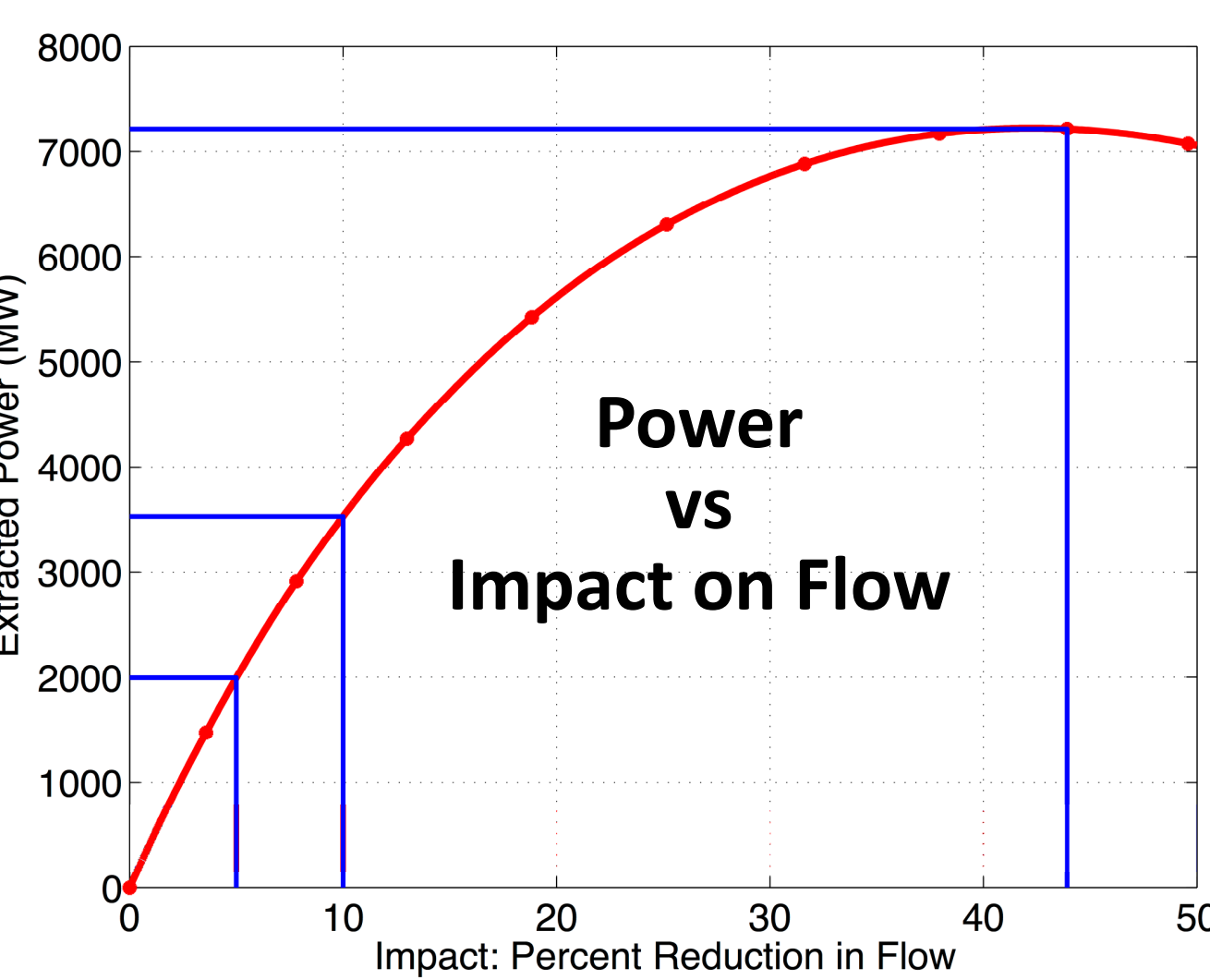
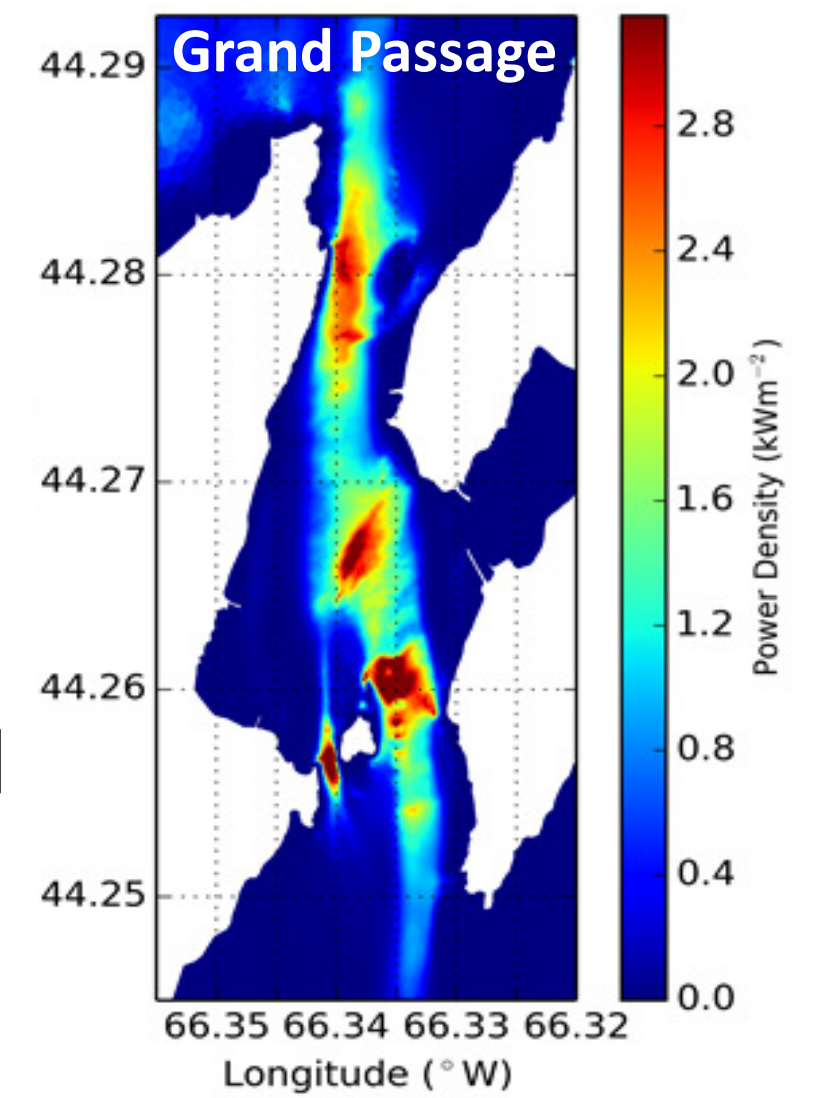


The Bay of Fundy is home to both FORCE, Canada's leading tidal energy test centre, and community owned and operated tidal energy developments.

QUANTIFYING TIDAL RESOURCES



- Developing world leading hydrodynamic models of tides and tidal flows,
- Evaluating and advancing techniques for resource assessment and identification of high energy "hot spots" for turbine siting,
- Determining energy extraction impacts on flow, and
- Optimizing tidal turbine array configurations.



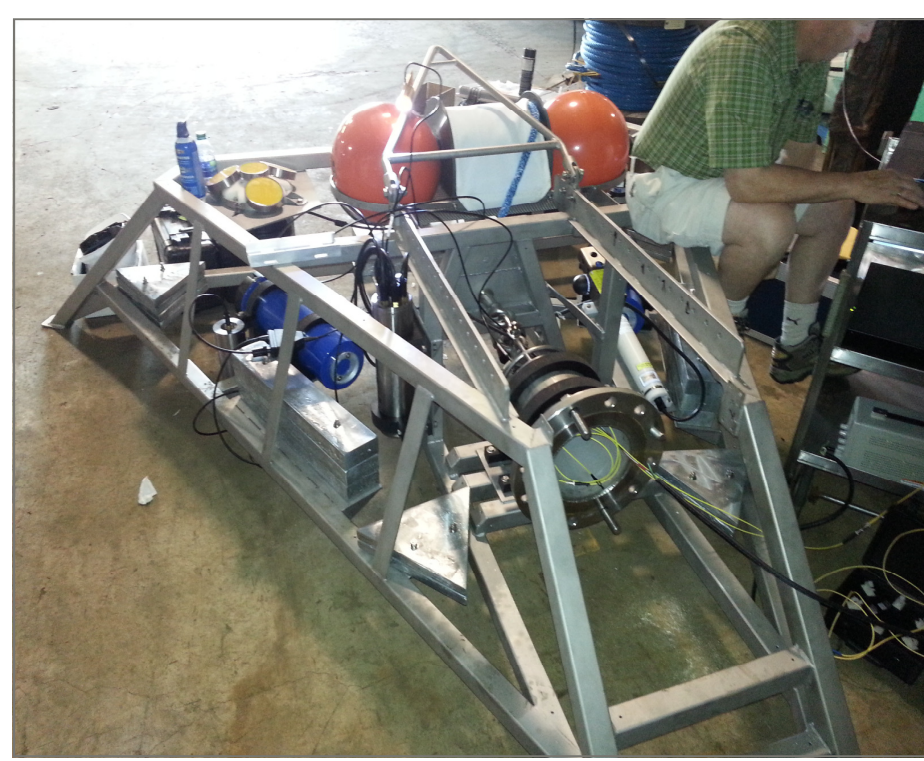
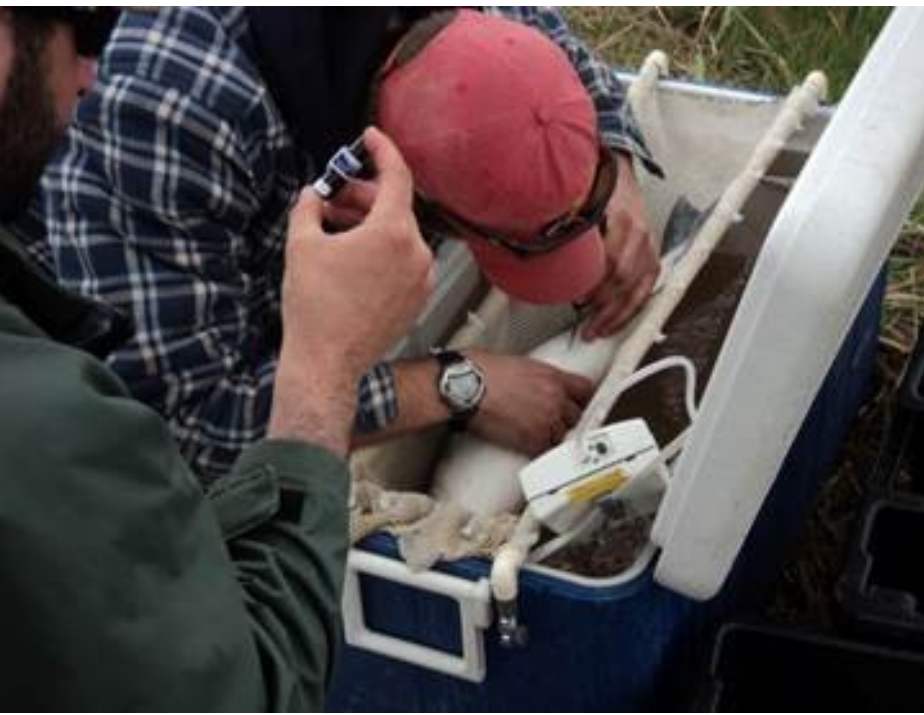
ASSESSING IMPACTS ON MARINE LIFE

Identified potential effects of tidal energy development include risks to

- marine mammals and migratory fish, and
- local and regional fisheries (e.g. lobster, herring).

Assessments involve acoustic sensing of marine life using best-in-class technologies, including sensors developed in Nova Scotia.

"High flow" sensor platforms, developed by Fundy Ocean Research Center for Energy (FORCE), will offer "real time" data on animal use of tidal energy sites and behaviour near operational turbines.



Sensor Platform

Tidal Turbine and Site Developers — Bay of Fundy



ACADIA: Dr Richard Karsten, Dr Anna Redden and Dr Graham Daborn