

Diluted Bitumen Spills in the Bay of Fundy: An Update on the Scientific and Technological Challenges

Ian G. Stewart¹ and Peter G. Wells²

- (1) History of Science and Technology Programme, University of King's College, Halifax, NS; (2) School of Information Management, School for Resource and Environmental Studies, Marine Affairs Program, and International Ocean Institute, Dalhousie University, Halifax, NS (oceans2@ns.sympatico.ca; peter.wells@dal.ca)

Safe transportation of diluted bitumen (dilbit) on land and sea already poses critical scientific and technical challenges for the further sustainable development of Canada's oil industry, and the proposed Energy East pipeline would see substantial increases in tanker traffic of dilbit in the Bay of Fundy. Scientific knowledge of the distinctive behaviour of dilbit (compared to other hydrocarbons) when released into marine environments is evolving, although interpretation of that information has varied, as have claims regarding our technological capacity for mitigating environmental impacts of dilbit spills. This paper will present an update on what scientific consensus has emerged in the recent literature, and indicate remaining areas of uncertainty and concern that are relevant in particular to the Bay of Fundy's ecosystems and communities.