

# Transboundary Environmental Management: A Study of the Abbotsford-Sumas Aquifer in British Columbia and Western Washington

Emma S. Norman and Jean O. Melious\*

**Abstract:** Political borders, which delineate divergent political, social, economic, and demographic systems, affect the management of shared natural resources. Transboundary environmental management will attract increasing global attention as trends of population growth and natural resource scarcity drive coordinated solutions for environmental problems. Water pollution, in particular, will be a high priority for many nations because of the undisputed importance of water to sustain life and the unyielding characteristic of water to flow freely across political borders. The study of the Abbotsford-Sumas aquifer offers a model to investigate the nature of shared resource management problems within two divergent cultural regions (western Washington and southern British Columbia), bisected by a political boundary (U.S.-Canada border). Using the newly developed Transboundary Environmental Management Index (TEMI), the coordinated management of the organizations was ranked according to their “institutional capacity.” The research found that groups representing smaller regions were more likely to reduce pollution inputs, however, the community-based success was largely contingent on the higher-level political groups to recognize, support, and fund scientific research.