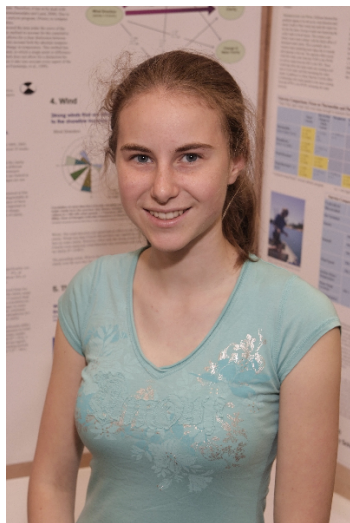


## CWSF 2007 - Truro, Nova Scotia



### Hannah Louise Joy-Warren

#### Water Clarity in the World's Largest Freshwater Ecosystem

**Division:** Engineering & Computing Sciences / None

**Category:** Senior

**Region:** Greater Vancouver

**City:** Vancouver, BC

**School:** Sir Winston Churchill Secondary

**Abstract:** In this study, I examined the effects of weather changes on water clarity in the Great Lakes. Water clarity a measure of water quality, and can be used to investigate changes in an ecosystem. Study sites differed in their exposure to wind and water exchange. In exposed sites, wind speed and direction appear to drive water temperature gradients, which in turn affect water clarity.

#### Biography

Hannah Joy-Warren is a Grade 11 student who attends the International Baccalaureate Program (IB) at Sir Winston Churchill Secondary School in Vancouver, British Columbia, where she serves on the IB Student Council and is an executive of the Dissection Club. Hannah enjoys skiing and snowboarding, and plays soccer, lacrosse, and the violin. She is fluent in Spanish, participated in an exchange program in El Salvador, and will do volunteer work in Ecuador this summer. Hannah collected the data for her science fair project over three summers while vacationing with her family on the Georgian Bay in Ontario. She is especially interested in environmental issues, and might become an environmental engineer. But she is also very interested in social issues, and may combine her interests in science with a career in development. Hannah moved to British Columbia three years ago from Arlington, Virginia, where she won the Best in Fair Award for the Junior category at the Northern Virginia Regional Science Fair.