

CWSF 2017 - Regina, Saskatchewan



Connor Maxwell

Hydrological Analysis of Streamflow and Potential Effects of Climate Change

Challenge: Environment

Category: Intermediate

Region: Bluewater

City: Hanover, ON

School: Sacred Heart H.S.

Abstract: Ontario weather and stream gauge data archived from 12 to 117 years was thoroughly examined. Hydrological trends were meticulously analyzed and eight distinct variables were evaluated. Linear regression verified the accuracy of the resulting correlations between the hydrological trends and the effects that would result from climate change. This project clearly validated that climate change has occurred in Ontario during the past century.

Biography

Connor Maxwell is a Grade 9 student at Sacred Heart High School in Walkerton, Ontario. He enjoys hockey, swimming, soccer, volleyball, reading, writing, and science fair. This is the sixth year that Connor has participated in science fair and his third trip to the Canada-Wide Science Fair. Connor was inspired to complete this project due to his keen interest in science and the environment. He also enjoyed spending time at his uncle's wetland property and around the river that flows through his grandparents' property. In the previous four years, Connor experimented with the mortality rates of Brine Shrimp. He also studied the effects of pollutants on Brine Shrimp and created a low-cost filter to trap pollutants before they entered streams and larger waterways. This year Connor investigated years of archived weather and watershed data to determine if significant quantitative changes had occurred in his local watershed and if these variations could be explicitly attributed to climate change. This could lead to the local Conservation Authorities and communities being better prepared for future changes to their local watershed. Connor is exploring possible careers in environmental engineering and environmental science, as he is extremely passionate about environmental advocacy and c...

Awards

Value

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| Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada | |
| Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University | \$1 000 |
| Total | \$1 000 |