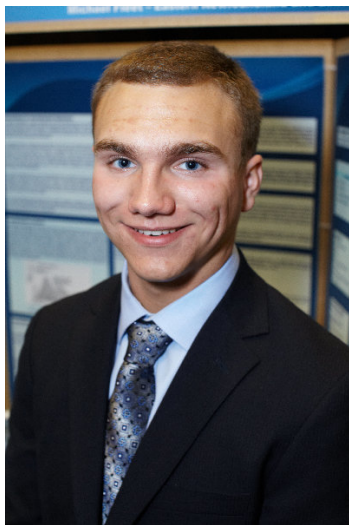


## CWSF 2012 - Charlottetown, Prince Edward Island



### Michael Fleet

#### A River Runs Through It - Retrofitting the Urban Environment to Reduce Flooding

**Challenge:** Environment

**Category:** Senior

**Region:** Eastern Newfoundland

**City:** Paradise, NL

**School:** Holy Spirit H.S.

**Abstract:** This project tested whether a detention tank retrofitted onto individual houses in an urbanised environment can produce a collective and significant effect on flood potential of urbanised rivers. A combination of experiments and the application of mathematical formulae determined that rainfall runoff from individual rooftops temporarily detained in a specific-sized detention tank can achieve pre-development discharge rates from urban areas to receiving streams and rivers.

#### Biography

My name is Michael Fleet and I'm a Level III student at Holy Spirit High in Manual, NL. I'm a Senior Level Air Cadet and hold the rank of WO2 with 905 Viking RCACS. For the past two summers I performed with the Signal Hill Tattoo, a historical animation program portraying the garrison life and duties of His Majesty's Royal Newfoundland Regiment of Foot in the late 1790's and in 2010 earned the award for "Best New Grenadier Recruit." I play lead alto saxophone in my school concert and jazz bands, cadet band, and first and second alto sax in the CBS Concert and Jazz Bands. I also play guitar, mandolin and harmonica and enjoy writing and recording my own compositions. I am a 2nd degree Blackbelt in Taekwondo, Captain of my cadet biathlon team, and regularly jog and weight train. Last year I represented Canada in the USA during the International Air Cadet Exchange which involved 19 other nations. In 2011, I combined my love of both travel and history by completing a tour of Canadian Battlefields in France, Belgium and Amsterdam. This year I travelled to Hungary, Austria, the Czech Republic, and Germany. This is my second CWSF.

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