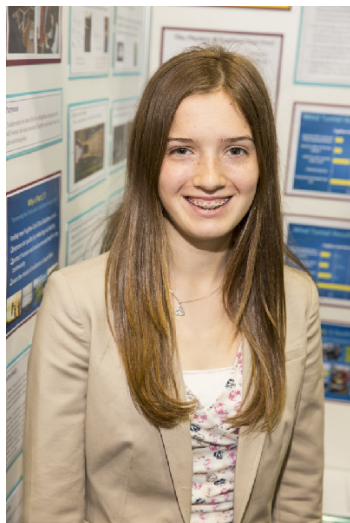


# CWSF 2015 - Fredericton, New Brunswick



## Meaghan MacKenzie

### Fugitive Coal Dust Solutions in South Delta

**Challenge:** Environment

**Category:** Intermediate

**Region:** South Fraser

**City:** Delta, BC

**School:** Southpointe Academy

**Abstract:** The purpose of my project was to determine the most effective mitigation solutions that would release the least amount of fugitive coal dust from coal cars and stockpiles. I conducted nine tests in my wind tunnel using different methods that included two innovations. A few solutions reduced the amount of coal dusting, which could improve air quality, protect human and environmental health in South Delta.

#### Biography

My name is Meaghan MacKenzie and I am a grade ten student at Southpointe Academy in Tsawwassen, BC. I was introduced to science fair when I was in grade seven at my school and over the years it has helped me explore ideas, problem solve and become a more confident speaker and presenter. Science fair has enriched my learning and allowed me to look beyond the classroom as well as influenced my career goals. I love choosing projects in the environmental field because I hope make a difference in the lives of people and the world we live in. Other than science fair, I am involved in debate, Model UN, student council, and many sports including rowing, volleyball, running and swimming. In my free time, I love to take my dog for runs. I would encourage anyone to get involved with science fair because the learning process is invaluable, and the creative and critical thinking skills you develop are skills you will have for a lifetime!

#### Awards

#### Value

Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$250
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Total	\$4 250